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Superfund Records Center
SITE: Centredale
BREAK: 3.04
OTHER: PARAMETER 48748

Table A-18

Summary Statistics and Analytical Results for Largemouth Bass - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-DU-062101-0000-C-F 6/21/2001 REPLICATE	LPX-DU-062101-0000-C-O 6/21/2001 REPLICATE	LPX-DU-062101-0000-C-W 6/21/2001 REPLICATE
Semivolatile Organics (ug/Kg)										
1,1'-Biphenyl	30	32	0.9	0.94	0.07	0.75	0.38			
2-Methylnaphthalene	31	32	0.98	0.98	0.17	6.87	2.32			
Acenaphthene	25	32	0.57	1.12	0.16	2.15	0.91			
Acenaphthylene	27	32	0.63	1.12	0.05	1.06	0.45			
Anthracene	31	32	0.9	0.9	0.06	1.85	0.66			
Benzo(a)anthracene	26	32	0.59	1.12	0.04	3.77	0.55			
Benzo(a)pyrene	17	32	0.57	1.12	0.14	5.85	0.79			
Benzo(b)fluoranthene	22	32	0.57	1.12	0.09	7.52	0.99			
Benzo(g,h,i)perylene	15	32	0.57	1.12	0.35	6.03	0.96			
Benzo(k)fluoranthene	19	32	0.57	1.12	0.16	6.78	0.91			
Chrysene	29	32	0.81	1.12	0.09	7.25	1.11			
Dibenzo(a,h)anthracene	12	32	0.57	1.12	0.08	1.7	0.41			
Dibenzofuran	31	32	1.12	1.12	0.07	1.97	0.78			
Fluoranthene	29	32	0.81	1.12	0.32	10.84	2.52			
Fluorene	31	32	1.12	1.12	0.08	6.71	1.71			
Indeno(1,2,3-cd)pyrene	29	32	0.81	1.12	0.1	7.04	0.91			
Naphthalene	25	32	0.76	3.05	0.76	6.2	1.91			
Phenanthrene	30	32	0.9	1.12	0.3	8.58	3.57			
Pyrene	21	32	0.57	1.12	0.48	7.59	1.61			
Total PAH	32	32			0.29	84.94	21.81			
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	32	32			0.15	39.1	5.66			
4,4'-DDE	31	32	0.72	0.72	0.95	177.73	46.22			
4,4'-DDT	30	32	0.72	0.79	0.06	7.4	2.31			
Aldrin	0	19	0.46	1.09			0.31			
alpha-BHC	0	19	0.46	1.1			0.31			
alpha-Chlordane	32	32			0.25	13.76	5.42			
Aroclor, Total	32	32			17.37	3349.86	1102.98			
Aroclor-1016	0	19	5.71	13.65			3.91			
Aroclor-1221	0	19	5.71	13.65			3.91			
Aroclor-1232	0	19	5.71	13.65			3.91			
Aroclor-1242	0	19	5.71	13.65			3.91			
Aroclor-1248	0	19	5.71	13.65			3.91			
Aroclor-1254	32	32			16.71	3332.9	1080.73			
Aroclor-1260	0	19	5.71	13.65			3.91			
Aroclor-1268	32	32			0.67	81.18	22.25			
beta-BHC	0	19	0.46	1.09			0.31			

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delta-BHC	0	19	0.46	1.1			0.31			
Dieldrin	30	31	0.72	0.72	0.18	3.74	1.43			
Endosulfan I	0	19	0.46	1.09			0.31			
Endosulfan II	0	19	0.46	1.09			0.31			
Endosulfan Sulfate	0	19	0.46	1.09			0.31			
Endrin	0	19	0.46	1.09			0.31			
Endrin Aldehyde	0	19	0.46	1.09			0.31			
Endrin Ketone	0	19	0.46	1.09			0.31			
gamma-BHC	0	19	0.46	1.09			0.31			
gamma-Chlordane	31	32	0.72	0.72	0.03	5.82	2.11			
Heptachlor	0	19	0.46	1.09			0.31			
Heptachlor Epoxide	0	19	0.46	1.09			0.31			
Methoxychlor	0	19	0.46	1.1			0.31			
Technical Chlordane	32	32			3.19	215.57	96.04			
Toxaphene	0	19	9.02	27.31			7.26			
Inorganics (mg/Kg)										
Aluminum	28	30	1.12	1.12	0.4	101	8.38	0.504 J	3.72	2.69
Antimony	1	30	0.000695	0.034	0.00194	0.00194	0.0159	0.034 U	0.034 U	0.034 U
Arsenic	0	30	0.034	0.0929			0.0226	0.034 U	0.0392 U	0.0375 U
Barium	28	30	0.011	0.018	0.0195	2.45	0.735	0.0222 J	1.76 J	1.21 J
Beryllium	8	30	0.004	0.00721	0.00125	0.0164	0.00340	0.004 U	0.00729 U	0.00624 U
Cadmium	21	30	0.2	0.2	0.00304	0.0297	0.0395	0.2 U	0.0297 J	0.0202 J
Chromium	11	30	0.0303	0.269	0.035	0.436	0.144	0.269 U	0.269 U	0.269 U
Cobalt	28	30	0.00163	0.38	0.0045	0.145	0.0573	0.01 J	0.124 J	0.0876 J
Copper	30	30			0.136	1.71	0.818	0.159 J	1.58 J	1.13 J
Iron	30	30			2	140	23.4	2.94 J	30.5 J	21.7 J
Lead	28	30	0.022	0.022	0.0017	0.557	0.0818	0.000945 J	0.133 J	0.0909 J
Manganese	30	30			0.103	22.1	3.90	0.116 U	8.67	5.91
Mercury	9	30	0.0712	0.385	0.0806	0.398	0.128	0.344 U	0.196 U	0.243 U
Mercury (methyl)	30	30			0.0384	0.41	0.190	0.302	0.16	0.205
Molybdenum	13	30	0.00956	0.32	0.0235	0.0673	0.103	0.32 U	0.0706 J	0.0481 J
Nickel	29	30	0.32	0.32	0.0154	0.249	0.0971	0.0218 J	0.219 J	0.156 J
Selenium	25	30	0.0431	0.448	0.102	0.281	0.184	0.155 J	0.18 J	0.172 J
Silver	6	30	0.06	0.06	0.00768	0.0292	0.0280	0.06 U	0.06 U	0.06 U
Thallium	30	30			0.00163	0.00643	0.00420	0.00241 J	0.00441 J	0.00377 J
Vanadium	14	30	0.179	0.179	0.0207	0.167	0.0735	0.179 U	0.179 U	0.179 U
Zinc	30	30			4.07	26.7	14.5	4.68 J	26.7 J	19.7 J

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Dioxins/Furans (ug/Kg)										
HCX	18	30	0.01986	0.04	0.005	0.04848	0.01967			
TCX	0	0								
2,3,7,8-TCDD	30	30			0.00972	0.44062	0.16287			
1,2,3,7,8-PeCDD	20	30	0.00014	0.0003	0.00013	0.00075	0.00030			
1,2,3,4,7,8-HxCDD	6	30	0.00004	0.00045	0.00005	0.00012	0.00011			
1,2,3,6,7,8-HxCDD	16	30	0.00004	0.00046	0.00013	0.00044	0.00018			
1,2,3,7,8,9-HxCDD	6	30	0.00004	0.00043	0.00003	0.00011	0.00011			
1,2,3,4,6,7,8-HpCDD	8	30	0.00015	0.00141	0.0002	0.00057	0.00025			
OCDD	0	30	0.00019	0.00371			0.00036			
2,3,7,8-TCDF	20	30	0.00004	0.0002	0.00009	0.00134	0.00024			
1,2,3,7,8-PeCDF	2	30	0.00014	0.0004	0.0004	0.00056	0.00013			
2,3,4,7,8-PeCDF	8	30	0.00014	0.00035	0.00018	0.00049	0.00016			
1,2,3,4,7,8-HxCDF	0	30	0.00005	0.00042			0.00007			
1,2,3,6,7,8-HxCDF	4	30	0.00001	0.00049	0.0001	0.00034	0.00009			
2,3,4,6,7,8-HxCDF	2	30	0.00003	0.00052	0.00012	0.00017	0.00010			
1,2,3,7,8,9-HxCDF	2	30	0.00004	0.00056	0.00012	0.00017	0.00011			
1,2,3,4,6,7,8-HpCDF	0	30	0.00005	0.00052			0.00012			
1,2,3,4,7,8,9-HpCDF	2	30	0.00012	0.00084	0.00006	0.00008	0.00017			
OCDF	0	30	0.00008	0.00064			0.00012			
Total TCDD	30	30			0.00972	0.44062	0.16287			
Total PeCDD	20	30	0.00004	0.00046	0.00013	0.00279	0.00073			
Total HxCDD	16	30	0.00002	0.00045	0.00013	0.00064	0.00022			
Total HpCDD	0	30	0.00006	0.00141			0.00020			
Total TCDF	20	30	0.00003	0.00018	0.00011	0.00086	0.00026			
Total PeCDF	18	30	0.00016	0.00025	0.00009	0.00105	0.00033			
Total HxCDF	0	30	0.00006	0.00108			0.00012			
Total HpCDF	0	30	0.00002	0.00056			0.00013			
Toxicity Equivalency (Dioxins, Furans, HCX)	30	30			0.00972	0.441	0.163			
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	0	15	0.00448	0.03998			0.01180			
4-Chlorobiphenyl (3)	0	15	0.00399	0.03998			0.00963			
2,2'-Dichlorobiphenyl (4)	12	15	0.01585	0.02753	0.04076	0.26443	0.10433			
2,3-Dichlorobiphenyl (5)	8	15	0.00993	0.00999	0.00339	0.01121	0.00580			
2,3'-Dichlorobiphenyl (6)	10	15	0.00913	0.0228	0.02665	0.14722	0.04996			
2,4-Dichlorobiphenyl (7)	10	15	0.00993	0.00999	0.00612	0.0289	0.01174			
2,4'-Dichlorobiphenyl (8)	11	15	0.03556	0.06409	0.10376	0.57355	0.20645			
2,5-Dichlorobiphenyl (9)	11	15	0.00369	0.00999	0.00895	0.05791	0.01945			

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2,6-Dichlorobiphenyl (10)	10	15	0.00993	0.00999	0.00212	0.0147	0.00630			
3,4-Dichlorobiphenyl (12)	6	15	0.01985	0.01997	0.00286	0.00514	0.00762			
3,4'-Dichlorobiphenyl (13)	5	5			0.01989	0.01999	0.01995			
2,2',3'-Trichlorobiphenyl (16)	12	15	0.02936	0.03503	0.0673	1.04524	0.34042			
2,2',4-Trichlorobiphenyl (17)	15	15			0.03686	1.35438	0.44312			
2,2',5-Trichlorobiphenyl (18)	15	15			0.07692	2.70596	0.90066			
2,2',6-Trichlorobiphenyl (19)	15	15			0.00827	0.26415	0.08789			
2,3,3'-Trichlorobiphenyl (20)	15	15			0.30752	14.65468	4.84752			
2,3,4-Trichlorobiphenyl (21)	5	5			0.09947	0.09994	0.09973			
2,3,4'-Trichlorobiphenyl (22)	12	15	0.05464	0.06216	0.11518	2.09214	0.66354			
2,3,6-Trichlorobiphenyl (24)	15	15			0.0079	0.27756	0.09239			
2,3',4-Trichlorobiphenyl (25)	13	15	0.00775	0.01075	0.01275	0.54826	0.16380			
2,3',5-Trichlorobiphenyl (26)	14	15	0.0277	0.0277	0.03612	1.6092	0.50415			
2,3',6-Trichlorobiphenyl (27)	5	5			0.03979	0.03998	0.03990			
2,4,4'-Trichlorobiphenyl (28)	5	5			0.09947	0.09994	0.09973			
2,4,5-Trichlorobiphenyl (29)	5	5			0.03979	0.03998	0.03990			
2,4,6-Trichlorobiphenyl (30)	5	5			0.09947	0.09994	0.09973			
2,4',5-Trichlorobiphenyl (31)	12	15	0.0871	0.13369	0.25775	5.94703	1.74622			
2,4',6-Trichlorobiphenyl (32)	15	15			0.0288	1.08573	0.33637			
2,3',4'-Trichlorobiphenyl (33)	5	5			0.09947	0.09994	0.09973			
2,2',3,3'-Tetrachlorobiphenyl (40)	15	15			0.13041	5.34375	1.75807			
2,2',3,4-Tetrachlorobiphenyl (41)	5	5			0.09947	0.09994	0.09973			
2,2',3,4'-Tetrachlorobiphenyl (42)	15	15			0.08868	3.99692	1.28144			
2,2',3,5-Tetrachlorobiphenyl (43)	15	15			0.65073	33.86298	11.64585			
2,2',3,5'-Tetrachlorobiphenyl (44)	15	15			0.1152	6.31398	2.17912			
2,2',3,6-Tetrachlorobiphenyl (45)	15	15			0.03862	1.5303	0.48565			
2,2',3,6'-Tetrachlorobiphenyl (46)	14	15	0.00673	0.00673	0.00858	0.3689	0.10915			
2,2',4,4'-Tetrachlorobiphenyl (47)	5	5			0.09947	0.09994	0.09973			
2,2',4,5-Tetrachlorobiphenyl (48)	15	15			0.0416	2.02286	0.65902			
2,2',4,5'-Tetrachlorobiphenyl (49)	15	15			0.2523	13.9686	4.65515			
2,2',4,6-Tetrachlorobiphenyl (50)	15	15			0.03066	1.40466	0.43509			
2,2',4,6'-Tetrachlorobiphenyl (51)	5	5			0.03979	0.03998	0.03990			
2,2',5,5'-Tetrachlorobiphenyl (52)	5	5			0.03979	0.03998	0.03990			
2,2',5,6'-Tetrachlorobiphenyl (53)	5	5			0.03979	0.03998	0.03990			
2,3,3',4'-Tetrachlorobiphenyl (56)	15	15			0.0824	3.57182	1.21990			
2,3,3',6-Tetrachlorobiphenyl (59)	15	15			0.27312	10.35582	3.40341			
2,3,4,4'-Tetrachlorobiphenyl (60)	15	15			0.07476	2.70199	1.01708			
2,3,4,5-Tetrachlorobiphenyl (61)	15	15			0.4634	26.71432	9.50170			

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2,3,4,6-Tetrachlorobiphenyl (62)	5	5			0.03979	0.03998	0.03990			
2,3,4',5-Tetrachlorobiphenyl (63)	15	15			0.01698	1.02851	0.37669			
2,3,4',6-Tetrachlorobiphenyl (64)	15	15			0.17283	6.85574	2.34033			
2,3,5,6-Tetrachlorobiphenyl (65)	5	5			0.09947	0.09994	0.09973			
2,3',4,4'-Tetrachlorobiphenyl (66)	15	15			0.62186	29.57713	11.35110			
2,3',4,6-Tetrachlorobiphenyl (69)	5	5			0.09947	0.09994	0.09973			
2,3',4',5-Tetrachlorobiphenyl (70)	5	5			0.09947	0.09994	0.09973			
2,3',4',6-Tetrachlorobiphenyl (71)	5	5			0.09947	0.09994	0.09973			
2,3',5',6-Tetrachlorobiphenyl (73)	5	5			0.03979	0.03998	0.03990			
2,3',4',5-Tetrachlorobiphenyl (74)	5	5			0.09947	0.09994	0.09973			
2,4,4',6-Tetrachlorobiphenyl (75)	5	5			0.03979	0.03998	0.03990			
2,3',4',5-Tetrachlorobiphenyl (76)	5	5			0.09947	0.09994	0.09973			
3,3',4,4'-Tetrachlorobiphenyl (77)	14	15	0.00977	0.00977	0.01053	0.55653	0.18264			
3,4,4',5-Tetrachlorobiphenyl (81)	0	15	0.09927	0.09999			0.04986			
2,2',3,3',4-Pentachlorobiphenyl (82)	14	15	0.09946	0.09946	0.14714	5.72716	1.92093			
2,2',3,3',5-Pentachlorobiphenyl (83)	15	15			0.81944	52.68812	20.66482			
2,2',3,3',6-Pentachlorobiphenyl (84)	15	15			0.18605	7.20688	2.37775			
2,2',3,4,4'-Pentachlorobiphenyl (85)	15	15			0.35442	17.13003	6.58967			
2,2',3,4,5-Pentachlorobiphenyl (86)	15	15			1.0593	46.12596	17.26539			
2,2',3,4,5'-Pentachlorobiphenyl (87)	5	5			0.09947	0.09994	0.09973			
2,2',3,4,6-Pentachlorobiphenyl (88)	15	15			0.16506	6.66188	2.36853			
2,2',3,4,6'-Pentachlorobiphenyl (89)	14	15	0.09982	0.09982	0.0065	0.24908	0.08040			
2,2',3,4',5-Pentachlorobiphenyl (90)	15	15			1.48497	92.94813	36.63416			
2,2',3,4',6-Pentachlorobiphenyl (91)	5	5			0.09947	0.09994	0.09973			
2,2',3,5,5'-Pentachlorobiphenyl (92)	15	15			0.24063	14.29803	5.47164			
2,2',3,5,6-Pentachlorobiphenyl (93)	15	15			0.8072	31.1542	10.99868			
2,2',3,5',6-Pentachlorobiphenyl (95)	5	5			0.09947	0.09994	0.09973			
2,2',3,4',5'-Pentachlorobiphenyl (97)	5	5			0.09947	0.09994	0.09973			
2,2',3,4',6'-Pentachlorobiphenyl (98)	5	5			0.09947	0.09994	0.09973			
2,2',4,4',5-Pentachlorobiphenyl (99)	5	5			0.09947	0.09994	0.09973			
2,2',4,4',6-Pentachlorobiphenyl (100)	5	5			0.09947	0.09994	0.09973			
2,2',4,5,5'-Pentachlorobiphenyl (101)	5	5			0.19894	0.19988	0.19947			
2,2',4,5,6'-Pentachlorobiphenyl (102)	5	5			0.09947	0.09994	0.09973			
2,3,3',4,4'-Pentachlorobiphenyl (105)	15	15			0.37511	17.3437	6.89405			
2,3,3',4,5-Pentachlorobiphenyl (106)	15	15			0.15095	9.16308	3.62852			
2,3,3',4',5-Pentachlorobiphenyl (107)	5	5			0.19894	0.19988	0.19947			
2,3,3',4',5'-Pentachlorobiphenyl (108)	15	15			0.04094	2.54468	0.92173			
2,3,3',4,6-Pentachlorobiphenyl (109)	5	5			0.09947	0.09994	0.09973			

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2,3,3',4',6-Pentachlorobiphenyl (110)	15	15			1.65808	72.9419	25.88479			
2,3,3',5,5'-Pentachlorobiphenyl (111)	5	5			0.09947	0.09994	0.09973			
2,3,3',5',6-Pentachlorobiphenyl (113)	5	5			0.19894	0.19988	0.19947			
2,3,4,4',5-Pentachlorobiphenyl (114)	15	15			0.03286	1.64285	0.63150			
2,3,4,4',6-Pentachlorobiphenyl (115)	5	5			0.19894	0.19988	0.19947			
2,3,4,5,6-Pentachlorobiphenyl (116)	5	5			0.03979	0.03998	0.03990			
2,3,4',5,6-Pentachlorobiphenyl (117)	5	5			0.03979	0.03998	0.03990			
2,3',4,4',5-Pentachlorobiphenyl (118)	15	15			1.74523	82.57286	35.19822			
2,3',4,4',6-Pentachlorobiphenyl (119)	5	5			0.09947	0.09994	0.09973			
2,3',4,5',6-Pentachlorobiphenyl (121)	5	5			0.09947	0.09994	0.09973			
2,3,3',4',5'-Pentachlorobiphenyl (122)	5	5			0.09947	0.09994	0.09973			
2,3',4,4',5'-Pentachlorobiphenyl (123)	5	5			0.09947	0.09994	0.09973			
2,3',4',5,5'-Pentachlorobiphenyl (124)	5	5			0.09947	0.09994	0.09973			
2,3',4',5',6-Pentachlorobiphenyl (125)	5	5			0.09947	0.09994	0.09973			
3,3',4,4',5-Pentachlorobiphenyl (126)	14	15	0.19964	0.19964	0.00362	0.35499	0.09648			
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	15	15			0.37562	16.27094	6.44581			
2,2',3,3',4,5-Hexachlorobiphenyl (129)	15	15			1.87356	90.605	31.27671			
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	15	15			0.11639	5.68844	2.18035			
2,2',3,3',4,6-Hexachlorobiphenyl (131)	13	15	0.04266	0.09969	0.01509	0.54935	0.18820			
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	15	15			0.32242	12.61257	4.43207			
2,2',3,3',5,6-Hexachlorobiphenyl (134)	15	15			0.04514	1.85546	0.72615			
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	15	15			0.16938	9.52059	3.41199			
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	15	15			0.03653	2.22422	0.68748			
2,2',3,4,4',5-Hexachlorobiphenyl (137)	15	15			0.1762	9.55296	3.89672			
2,2',3,4,4',5'-Hexachlorobiphenyl (138)	5	5			0.09947	0.09994	0.09973			
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	15	15			0.18533	10.30442	4.20399			
2,2',3,4,5,6'-Hexachlorobiphenyl (143)	5	5			0.09947	0.09994	0.09973			
2,2',3,4,5',6-Hexachlorobiphenyl (144)	15	15			0.0296	1.84826	0.71574			
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	15	15			0.13578	11.03536	4.52040			
2,2',3,4',5,6-Hexachlorobiphenyl (147)	15	15			0.8181	39.29194	15.23295			
2,2',3,4',5',6-Hexachlorobiphenyl (149)	5	5			0.09947	0.09994	0.09973			
2,2',3,5,5',6-Hexachlorobiphenyl (151)	5	5			0.09947	0.09994	0.09973			
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	15	15			0.82082	78.31572	31.70326			
2,2',4,4',5,6'-Hexachlorobiphenyl (154)	5	5			0.09947	0.09994	0.09973			
2,3,3',4,4',5-Hexachlorobiphenyl (156)	15	15			0.1434	9.89622	4.10561			
2,3,3',4,4',5'-Hexachlorobiphenyl (157)	5	5			0.09947	0.09994	0.09973			
2,3,3',4,4',6-Hexachlorobiphenyl (158)	15	15			0.16325	9.23977	3.68251			
2,3,3',4,5,6-Hexachlorobiphenyl (160)	5	5			0.09947	0.09994	0.09973			

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2,3,3',4,5',6-Hexachlorobiphenyl (161)	5	5			0.19894	0.19988	0.19947			
2,3,3',4',5,6-Hexachlorobiphenyl (163)	5	5			0.09947	0.09994	0.09973			
2,3,3',4',5',6-Hexachlorobiphenyl (164)	5	5			0.19894	0.19988	0.19947			
2,3,4,4',5,6-Hexachlorobiphenyl (166)	5	5			0.09947	0.09994	0.09973			
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	15	15			0.06761	4.25315	1.74246			
2,3',4,4',5',6-Hexachlorobiphenyl (168)	5	5			0.09947	0.09994	0.09973			
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0	15	0.09927	0.09999			0.04986			
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	15	15			0.29459	10.34189	4.44373			
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	15	15			0.0812	2.9897	1.23713			
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	15	15			0.03606	1.96033	0.80600			
2,2',3,3',4,5,6-Heptachlorobiphenyl (173)	5	5			0.19894	0.19988	0.19947			
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	15	15			0.11442	3.44004	1.26887			
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	15	15			0.00392	0.29035	0.10742			
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	15	15			0.00978	0.35338	0.11800			
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	15	15			0.09318	3.4922	1.30847			
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	15	15			0.01959	1.35883	0.47178			
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	15	15			0.30822	19.56424	8.10739			
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	10	15	0.19855	0.19973	0.01231	0.06198	0.05473			
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	15	15			0.05975	4.11565	1.59338			
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	10	15	0.19855	0.19973	0.00409	0.01911	0.04031			
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	15	15			0.0101	0.51327	0.18261			
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	15	15			0.17996	9.54086	3.82959			
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	14	15	0.09987	0.09987	0.00665	0.3221	0.13981			
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	15	15			0.04054	2.35327	0.94634			
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	14	15	0.19973	0.19973	0.00907	0.37017	0.15914			
2,3,3',4',5,5',6-Heptachlorobiphenyl (193)	5	5			0.09947	0.09994	0.09973			
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	15	15			0.04635	3.19405	1.22900			
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	15	15			0.02106	0.91123	0.37385			
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	15	15			0.03108	1.93445	0.70534			
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	12	15	0.19964	0.19973	0.0024	0.11753	0.06463			
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	15	15			0.20958	10.00778	3.74554			
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)	5	5			0.03979	0.03998	0.03990			
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	12	15	0.19892	0.19973	0.0059	0.12846	0.06032			
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	15	15			0.01549	0.64432	0.22574			
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	15	15			0.08362	6.04013	2.07953			
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	13	15	0.19964	0.19973	0.0034	0.16939	0.07944			
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	15	15			0.22862	11.95946	4.21693			
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	13	15	0.19855	0.19973	0.03831	1.13169	0.41447			
Decachlorobiphenyl (209)	15	15			0.12586	5.61068	1.97388			

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PCB Congeners, Total	15	15			20.44633	1022.33456	399.71203			
Toxicity Equivalency (PCB)	15	15			0.000376	0.0494	0.0156			
Other (%)										
Lipid, percent	22	22			0.181	5.21	1.88			

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. *Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Semivolatile Organics (ug/Kg)								
1,1'-Biphenyl				0.16 J	0.64	0.51	0.13 J	0.55 J
2-Methylnaphthalene				0.97 J	6.68	5.18	0.75	3.86
Acenaphthene				0.23 J	2.04	1.56	0.28 J	1.78
Acenaphthylene				1.11 U	0.72	0.53	0.1 J	0.86
Anthracene				0.23 J	1.52	1.18	0.19 J	1.39
Benzo(a)anthracene				0.13 J	0.21 J	0.19 J	0.05 J	0.28 J
Benzo(a)pyrene				1.11 U	0.25 J	0.18 J	0.57 U	0.42 J
Benzo(b)fluoranthene				1.11 U	0.27 J	0.2 J	0.57 U	0.49 J
Benzo(g,h,i)perylene				1.11 U	0.58 U	0.72 U	0.57 U	0.55 J
Benzo(k)fluoranthene				1.11 U	0.24 J	0.18 J	0.57 U	0.38 J
Chrysene				0.2 J	0.63	0.52	0.11 J	0.89
Dibenzo(a,h)anthracene				1.11 U	0.14 J	0.11 J	0.57 U	0.13 J
Dibenzofuran				0.22 J	1.79	1.38	0.22 J	1.65
Fluoranthene				0.65 J	3.7	2.9	0.6	3.47
Fluorene				0.35 J	4.5	3.41	0.41 J	3.3
Indeno(1,2,3-cd)pyrene				0.22 J	0.38 J	0.34 J	0.1 J	0.52 J
Naphthalene				1.12 U	3.77	2.78	0.8	2.49
Phenanthrene				1.03 J	8.58	6.6	1.13	7.69
Pyrene				1.11 U	1.5	1.11	0.57 U	1.5
Total PAH				4.39 J	37.56 J	28.85 J	4.87 J	32.22 J
Pesticides/PCBs (ug/Kg)								
4,4'-DDD				1.1 J	4.51 J	3.61	1.15 J	5.41 J
4,4'-DDE				3.61 J	84.34 J	63.15 D	5.89 J	91.41 J
4,4'-DDT				0.38 J	1.74 J	1.38	0.47 J	4.06 J
Aldrin				0.89 UJ	R	0.58 U	R	R
alpha-BHC				0.89 UJ	R	0.58 U	R	R
alpha-Chlordane				1.66 J	8.48 J	6.69	2.47 J	11.57 J
Aroclor, Total				105.01 J	1681.93 J	1268.05	121.6 J	2027.09 J
Aroclor-1016				11.11 UJ	R	7.18 U	R	R
Aroclor-1221				11.11 UJ	R	7.18 U	R	R
Aroclor-1232				11.11 UJ	R	7.18 U	R	R
Aroclor-1242				11.11 UJ	R	7.18 U	R	R
Aroclor-1248				11.11 UJ	R	7.18 U	R	R
Aroclor-1254				101.02 J	1674.51 J	1261.53 D	116.62 J	2013.88 J
Aroclor-1260				11.11 UJ	R	7.18 U	R	R
Aroclor-1268				4 J	7.41 J	6.52 J	2.98 J	13.21 J
beta-BHC				0.89 UJ	R	0.58 U	R	R

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delta-BHC				0.89 UJ	R	0.58 U	R	R
Dieldrin				0.65 J	3.01 J	2.39	0.48 J	3.27 J
Endosulfan I				0.89 UJ	R	0.58 U	R	R
Endosulfan II				0.89 UJ	R	0.58 U	R	R
Endosulfan Sulfate				0.89 UJ	R	0.58 U	R	R
Endrin				0.89 UJ	R	0.58 U	R	R
Endrin Aldehyde				0.89 UJ	R	0.58 U	R	R
Endrin Ketone				0.89 UJ	R	0.58 U	R	R
gamma-BHC				0.89 UJ	R	0.58 U	R	R
gamma-Chlordane				0.53 J	3.5 J	2.72	0.81 J	4.74 J
Heptachlor				0.89 UJ	R	0.58 U	R	R
Heptachlor Epoxide				0.89 UJ	R	0.58 U	R	R
Methoxychlor				0.89 UJ	R	0.58 U	R	R
Technical Chlordane				20.51 J	121.97 J	95.34	28.46 J	151.52 J
Toxaphene				22.22 UJ	R	14.36 U	R	R
Inorganics (mg/Kg)								
Aluminum	1.12 U	7.22	4.63	0.4	1.3	1.06	0.522 J	3.68
Antimony	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U
Arsenic	0.0353 U	0.0401 U	0.0384 U	0.0452 U	0.0494 U	0.0483 U	0.034 U	0.0433 U
Barium	0.0552	0.705	0.472	0.0343	0.712	0.534	0.06	0.815
Beryllium	0.004 U	0.00549	0.00352	0.004 U	0.00524 U	0.00491 U	0.004 U	0.00721 U
Cadmium	0.2 U	0.0156 J	0.01 J	0.2 U	0.00972 J	0.00717 J	0.2 U	0.0134 J
Chromium	0.269 U	0.118 J	0.0757 J	0.269 U	0.269 U	0.269 U	0.269 U	0.269 U
Cobalt	0.00629 J	0.0425 J	0.0295 J	0.0167 J	0.0947 J	0.0742 J	0.0231 J	0.111 J
Copper	0.28 J	0.637 J	0.509 J	0.262 J	0.922 J	0.749 J	0.22 J	0.504 J
Iron	2.38	29.2	19.6	2 J	16.2 J	12.5 J	3.9 J	21.7 J
Lead	0.00215 J	0.022 UJ	0.000771 UJ	0.0033 J	0.0549 J	0.0414 J	0.00661 J	0.0721 J
Manganese	0.111 J	1.79 J	1.19 J	0.317	4	3.03	0.367	3.73
Mercury	0.406	0.282	0.326	0.0924 U	0.0712 U	0.0768 U	0.141 U	0.0952 U
Mercury (methyl)	0.412	0.0994 J	0.211 J	0.0886	0.0384	0.0516	0.14	0.0881
Molybdenum	0.32 U	0.32 U	0.32 U	0.32 U	0.0386 J	0.0285 J	0.32 U	0.0371 J
Nickel	0.00455 J	0.0678 J	0.0451 J	0.0317 J	0.151 J	0.12 J	0.0466 J	0.193 J
Selenium	0.448 U	0.27 J	0.173 J	0.14 J	0.23 J	0.206 J	0.174 J	0.251 J
Silver	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 UJ	0.06 U
Thallium	0.00284 J	0.00423 J	0.00373 J	0.00432 J	0.00544 J	0.00515 J	0.00301 J	0.0063 J
Vanadium	0.179 U	0.0549 J	0.0352 J	0.179 U	0.179 U	0.179 U	0.179 U	0.179 U
Zinc	10.3	16.4	14.2	8.88 J	19.2 J	16.5 J	8.2 J	26.7 J

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Dioxins/Furans (ug/Kg)								
HCX				0.03971 UJ	0.03521 J	0.02671 J	0.005 J	0.02952 J
TCX				R	R	R	R	R
2,3,7,8-TCDD				0.01472 J	0.35538 J	0.26597 J	0.04393 J	0.40481 J
1,2,3,7,8-PeCDD				0.00028 UJ	0.00059 J	0.00044 J	0.0003 UJ	0.00075 J
1,2,3,4,7,8-HxCDD				0.00018 UJ	0.0003 UJ	0.00027 UJ	0.00021 UJ	0.00035 UJ
1,2,3,6,7,8-HxCDD				0.00018 UJ	0.0004 J	0.0003 J	0.00022 UJ	0.00031 J
1,2,3,7,8,9-HxCDD				0.00017 UJ	0.00029 UJ	0.00026 UJ	0.0002 UJ	0.00033 UJ
1,2,3,4,6,7,8-HpCDD				0.00072 UJ	0.00039 UJ	0.00048 UJ	0.00074 UJ	0.00036 UJ
OCDD				0.00063 UJ	0.00064 UJ	0.00064 UJ	0.00038 UJ	0.0007 UJ
2,3,7,8-TCDF				0.0002 UJ	0.00134 J#	0.00099 J#	0.00016 UJ	0.00046 J
1,2,3,7,8-PeCDF				0.00016 UJ	0.0004 UJ	0.00034 UJ	0.00021 UJ	0.00027 UJ
2,3,4,7,8-PeCDF				0.00015 UJ	0.00039 J	0.00029 J	0.00022 UJ	0.00029 J
1,2,3,4,7,8-HxCDF				0.0001 UJ	0.00042 UJ	0.00034 UJ	0.00005 UJ	0.00014 UJ
1,2,3,6,7,8-HxCDF				0.00009 UJ	0.0001 UJ	0.0001 UJ	0.00005 UJ	0.00049 UJ
2,3,4,6,7,8-HxCDF				0.0001 UJ	0.00044 UJ	0.00035 UJ	0.00006 UJ	0.00052 UJ
1,2,3,7,8,9-HxCDF				0.00011 UJ	0.00047 UJ	0.00038 UJ	0.00007 UJ	0.00056 UJ
1,2,3,4,6,7,8-HpCDF				0.00029 UJ	0.00052 UJ	0.00046 UJ	0.00026 UJ	0.00046 UJ
1,2,3,4,7,8,9-HpCDF				0.00034 UJ	0.0006 UJ	0.00053 UJ	0.00031 UJ	0.00056 UJ
OCDF				0.00037 UJ	0.00034 UJ	0.00035 UJ	0.00046 UJ	0.0004 UJ
Total TCDD				0.01472 J	0.35538 J	0.26597 J	0.04393 J	0.40481 J
Total PeCDD				0.00028 UJ	0.00059 J	0.00044 J	0.0003 UJ	0.00075 J
Total HxCDD				0.00018 UJ	0.00052 J	0.00038 J	0.00021 UJ	0.00031 J
Total HpCDD				0.00072 UJ	0.00039 UJ	0.00048 UJ	0.00074 UJ	0.00036 UJ
Total TCDF				0.00004 UJ	0.00086 J	0.00063 J	0.00016 UJ	0.00066 J
Total PeCDF				0.00016 UJ	0.00072 J	0.00053 J	0.00021 UJ	0.00054 J
Total HxCDF				0.0001 UJ	0.0003 UJ	0.00025 UJ	0.00006 UJ	0.00014 UJ
Total HpCDF				0.00031 UJ	0.00056 UJ	0.00049 UJ	0.00028 UJ	0.00051 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)				0.0147	0.356	0.267	0.0439	0.406
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)				0.00867 UJ	0.03603 UJ	0.03988 UJ	0.00877 UJ	0.03327 UJ
4-Chlorobiphenyl (3)				0.0065 UJ	0.01447 UJ	0.03988 UJ	0.00642 UJ	0.01552 UJ
2,2'-Dichlorobiphenyl (4)				0.02753 UJ	0.26443 J	0.19503 J	0.04399 J	0.2411 J
2,3-Dichlorobiphenyl (5)				0.00993 UJ	0.01121 J	0.00827 J	0.00999 UJ	0.00953 J
2,3'-Dichlorobiphenyl (6)				0.0179 UJ	0.14722 J	0.10858 J	0.0228 UJ	0.13445 J
2,4-Dichlorobiphenyl (7)				0.00993 UJ	0.0289 J	0.02131 J	0.00999 UJ	0.02812 J
2,4'-Dichlorobiphenyl (8)				0.06409 UJ	0.57355 J	0.42301 J	0.10376 J	0.53063 J
2,5-Dichlorobiphenyl (9)				0.00521 UJ	0.05791 J	0.04271 J	0.00895 J	0.04813 J

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2,6-Dichlorobiphenyl (10)				0.00993 UJ	0.01127 J	0.00831 J	0.00999 UJ	0.0147 J
3,4-Dichlorobiphenyl (12)				0.01985 UJ	0.00498 J	0.00367 J	0.01997 UJ	0.00452 J
3,4'-Dichlorobiphenyl (13)						0.01994		
2,2',3'-Trichlorobiphenyl (16)				0.0673 J	1.04524 J	0.78857 J	0.1512 J	1.02041 J
2,2',4-Trichlorobiphenyl (17)				0.08165 J	1.30577 J	0.98449 J	0.18623 J	1.35438 J
2,2',5-Trichlorobiphenyl (18)				0.16514 J	2.70596 J	2.03909 J	0.36564 J	2.6717 J
2,2',6-Trichlorobiphenyl (19)				0.01931 J	0.26415 J	0.19989 J	0.04429 J	0.24061 J
2,3,3'-Trichlorobiphenyl (20)				0.7262 J	14.19176 J	10.65756 J	1.52488 J	14.65468 J
2,3,4-Trichlorobiphenyl (21)						0.09969		
2,3,4'-Trichlorobiphenyl (22)				0.11518 J	2.09214 J	1.57326 J	0.24966 J	2.0339 J
2,3,6-Trichlorobiphenyl (24)				0.01808 J	0.27756 J	0.20946 J	0.03914 J	0.27416 J
2,3',4-Trichlorobiphenyl (25)				0.02211 J	0.54826 J	0.41017 J	0.0506 J	0.51915 J
2,3',5-Trichlorobiphenyl (26)				0.06998 J	1.6092 J	1.20521 J	0.14206 J	1.5923 J
2,3',6-Trichlorobiphenyl (27)						0.03988		
2,4,4'-Trichlorobiphenyl (28)						0.09969		
2,4,5-Trichlorobiphenyl (29)						0.03988		
2,4,6-Trichlorobiphenyl (30)						0.09969		
2,4',5-Trichlorobiphenyl (31)				0.25775 J	5.94703 J	4.45381 J	0.50373 J	5.26873 J
2,4',6-Trichlorobiphenyl (32)				0.05822 J	1.04159 J		0.13547 J	1.08573 J
2,3',4'-Trichlorobiphenyl (33)						0.09969		
2,2',3,3'-Tetrachlorobiphenyl (40)				0.25314 J	4.60617 J	3.46367 J	0.76452 J	5.34375 J
2,2',3,4-Tetrachlorobiphenyl (41)						0.09969		
2,2',3,4'-Tetrachlorobiphenyl (42)				0.17112 J	3.28668 J	2.46896 J	0.54594 J	3.99692 J
2,2',3,5-Tetrachlorobiphenyl (43)				1.37418 J	30.61599 J	22.94113 J	3.93141 J	33.86298 J
2,2',3,5'-Tetrachlorobiphenyl (44)				0.20535 J	5.42214 J	4.05293 J	0.62211 J	6.31398 J
2,2',3,6-Tetrachlorobiphenyl (45)				0.07706 J	1.3532 J	1.01826 J	0.21084 J	1.5303 J
2,2',3,6'-Tetrachlorobiphenyl (46)				0.01836 J	0.27123 J	0.20486 J	0.05412 J	0.3689 J
2,2',4,4'-Tetrachlorobiphenyl (47)						0.09969		
2,2',4,5-Tetrachlorobiphenyl (48)				0.08798 J	1.76019 J	1.3213 J	0.25295 J	2.02286 J
2,2',4,5'-Tetrachlorobiphenyl (49)				0.51722 J	11.95728 J	8.9547 J	1.52704 J	13.9686 J
2,2',4,6-Tetrachlorobiphenyl (50)				0.05826 J	1.24794 J	0.93569 J	0.17812 J	1.40466 J
2,2',4,6'-Tetrachlorobiphenyl (51)						0.03988		
2,2',5,5'-Tetrachlorobiphenyl (52)						0.03988		
2,2',5,6'-Tetrachlorobiphenyl (53)						0.03988		
2,3,3',4'-Tetrachlorobiphenyl (56)				0.19684 J	3.57182 J	2.68602 J	0.54124 J	3.4848 J
2,3,3',6-Tetrachlorobiphenyl (59)				0.48864 J	8.85699 J	6.66062 J	1.4613 J	10.35582 J
2,3,4,4'-Tetrachlorobiphenyl (60)				0.13657 J	2.38359 J	1.79383 J	0.38483 J	2.70199 J
2,3,4,5-Tetrachlorobiphenyl (61)				1.17024 J	26.27512 J	19.68605 J	3.01164 J	26.71432 J

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2,3,4,6-Tetrachlorobiphenyl (62)						0.03988		
2,3,4',5-Tetrachlorobiphenyl (63)				0.03348 J	0.91903 J	0.68661 J	0.08837 J	1.02851 J
2,3,4',6-Tetrachlorobiphenyl (64)				0.30971 J	5.99569 J	4.50334 J	1.00094 J	6.85574 J
2,3,5,6-Tetrachlorobiphenyl (65)						0.09969		
2,3',4,4'-Tetrachlorobiphenyl (66)				1.27832 J	27.19875 J	20.39562 J	3.63803 J	29.57713 J
2,3',4,6-Tetrachlorobiphenyl (69)						0.09969		
2,3',4',5-Tetrachlorobiphenyl (70)						0.09969		
2,3',4',6-Tetrachlorobiphenyl (71)						0.09969		
2,3',5',6-Tetrachlorobiphenyl (73)						0.03988		
2,3',4',5-Tetrachlorobiphenyl (74)						0.09969		
2,4,4',6-Tetrachlorobiphenyl (75)						0.03988		
2,3',4',5-Tetrachlorobiphenyl (76)						0.09969		
3,3',4,4'-Tetrachlorobiphenyl (77)				0.02781 J	0.55853 J	0.41776 J	0.06508 J	0.4693 J
3,4,4',5-Tetrachlorobiphenyl (81)				0.09927 UJ	0.09984 UJ	0.09969 UJ	0.09986 UJ	0.09969 UJ
2,2',3,3',4-Pentachlorobiphenyl (82)				0.23654 J	4.70597 J	3.53291 J	0.91443 J	5.72716 J
2,2',3,3',5-Pentachlorobiphenyl (83)				1.547 J	46.4658 J	34.67633 J	4.95944 J	52.68812 J
2,2',3,3',6-Pentachlorobiphenyl (84)				0.33663 J	5.63044 J	4.24102 J	1.22886 J	7.20688 J
2,2',3,4,4'-Pentachlorobiphenyl (85)				0.62322 J	14.97894 J	11.21111 J	2.32584 J	17.13003 J
2,2',3,4,5-Pentachlorobiphenyl (86)				1.7643 J	40.0368 J	29.99173 J	6.80154 J	46.12596 J
2,2',3,4,5'-Pentachlorobiphenyl (87)						0.09969		
2,2',3,4,6-Pentachlorobiphenyl (88)				0.27014 J	5.45558 J	4.0946 J	1.04566 J	6.66188 J
2,2',3,4,6'-Pentachlorobiphenyl (89)				0.01316 J	0.20203 J	0.15246 J	0.03527 J	0.24908 J
2,2',3,4',5-Pentachlorobiphenyl (90)				2.84262 J	84.28359 J	62.90844 J	9.09231 J	92.94813 J
2,2',3,4',6-Pentachlorobiphenyl (91)						0.09969		
2,2',3,5,5'-Pentachlorobiphenyl (92)				0.47622 J	13.29236 J	9.92861 J	1.51232 J	14.29803 J
2,2',3,5,6-Pentachlorobiphenyl (93)				1.3301 J	26.8565 J	20.15679 J	4.9076 J	31.1542 J
2,2',3,5',6-Pentachlorobiphenyl (95)						0.09969		
2,2',3,4',5'-Pentachlorobiphenyl (97)						0.09969		
2,2',3,4',6'-Pentachlorobiphenyl (98)						0.09969		
2,2',4,4',5-Pentachlorobiphenyl (99)						0.09969		
2,2',4,4',6-Pentachlorobiphenyl (100)						0.09969		
2,2',4,5,5'-Pentachlorobiphenyl (101)						0.19938		
2,2',4,5,6'-Pentachlorobiphenyl (102)						0.09969		
2,3,3',4,4'-Pentachlorobiphenyl (105)				0.63052 J	14.83163 J	11.10438 J	2.23801 J	17.3437 J
2,3,3',4,5-Pentachlorobiphenyl (106)				0.30882 J	7.84341 J	5.86587 J	0.97905 J	9.16308 J
2,3,3',4',5-Pentachlorobiphenyl (107)						0.19938		
2,3,3',4',5'-Pentachlorobiphenyl (108)				0.09444 J	2.4302 J	1.81715 J	0.26856 J	2.54468 J
2,3,3',4,6-Pentachlorobiphenyl (109)						0.09969		

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2,3,3',4',6-Pentachlorobiphenyl (110)				2.86658 J	60.91832 J	45.68195 J	10.77102 J	72.9419 J
2,3,3',5,5'-Pentachlorobiphenyl (111)						0.09969		
2,3,3',5',6-Pentachlorobiphenyl (113)						0.19938		
2,3,4,4',5-Pentachlorobiphenyl (114)				0.06279 J	1.51875 J	1.13662 J	0.18474 J	1.64285 J
2,3,4,4',6-Pentachlorobiphenyl (115)						0.19938		
2,3,4,5,6-Pentachlorobiphenyl (116)						0.03988		
2,3,4',5,6-Pentachlorobiphenyl (117)						0.03988		
2,3',4,4',5-Pentachlorobiphenyl (118)				3.14341 J	73.54217 J	55.06518 J	10.86219 J	82.57286 J
2,3',4,4',6-Pentachlorobiphenyl (119)						0.09969		
2,3',4,5',6-Pentachlorobiphenyl (121)						0.09969		
2,3,3',4',5'-Pentachlorobiphenyl (122)						0.09969		
2,3',4,4',5'-Pentachlorobiphenyl (123)						0.09969		
2,3',4',5,5'-Pentachlorobiphenyl (124)						0.09969		
2,3',4',5',6-Pentachlorobiphenyl (125)						0.09969		
3,3',4,4',5-Pentachlorobiphenyl (126)				0.00362 J	0.35499 J	0.26277 J	0.02132 J	0.14757 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)				0.56504 J	13.02414 J	9.7541 J	2.61646 J	16.27094 J
2,2',3,3',4,5-Hexachlorobiphenyl (129)				3.1094 J	45.07082 J	34.05755 J	13.16756 J	55.24292 J
2,2',3,3',4,5'-Hexachlorobiphenyl (130)				0.16903 J	4.85267 J	3.62339 J	0.7264 J	5.68844 J
2,2',3,3',4,6-Hexachlorobiphenyl (131)				0.03177 J	0.54935 J	0.4135 J	0.11595 J	0.09969 UJ
2,2',3,3',4,6'-Hexachlorobiphenyl (132)				0.46514 J	10.25928 J	7.68869 J	2.1014 J	12.61257 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)				0.08194 J	1.85546 J	1.38998 J	0.31924 J	1.82694 J
2,2',3,3',5,6'-Hexachlorobiphenyl (135)				0.28473 J	7.88058 J	5.88696 J	1.12278 J	9.52059 J
2,2',3,3',6,6'-Hexachlorobiphenyl (136)				0.07239 J	1.65192 J	1.23735 J	0.35345 J	2.22422 J
2,2',3,4,4',5-Hexachlorobiphenyl (137)				0.28882 J	7.7766 J	5.81134 J	1.21288 J	9.55296 J
2,2',3,4,4',5'-Hexachlorobiphenyl (138)						0.09969		
2,2',3,4,5,5'-Hexachlorobiphenyl (141)				0.30339 J	8.63893 J	6.45117 J	1.16032 J	10.30442 J
2,2',3,4,5,6'-Hexachlorobiphenyl (143)						0.09969		
2,2',3,4,5',6-Hexachlorobiphenyl (144)				0.05809 J	1.59364 J	1.19062 J	0.19274 J	1.84826 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)				0.2377 J	9.16314 J	6.82055 J	0.79612 J	11.03536 J
2,2',3,4',5,6-Hexachlorobiphenyl (147)				1.37774 J	31.99204 J	23.95695 J	5.49064 J	39.29194 J
2,2',3,4',5',6-Hexachlorobiphenyl (149)						0.09969		
2,2',3,5,5',6-Hexachlorobiphenyl (151)						0.09969		
2,2',4,4',5,5'-Hexachlorobiphenyl (153)				1.5479 J	63.4693 J	47.21729 J	5.1484 J	78.31572 J
2,2',4,4',5,6'-Hexachlorobiphenyl (154)						0.09969		
2,3,3',4,4',5-Hexachlorobiphenyl (156)				0.2544 J	8.31834 J	6.20186 J	1.01074 J	9.89622 J
2,3,3',4,4',5'-Hexachlorobiphenyl (157)						0.09969		
2,3,3',4,4',6-Hexachlorobiphenyl (158)				0.24309 J	7.62171 J	5.6851 J	1.1097 J	9.23977 J
2,3,3',4,5,6-Hexachlorobiphenyl (160)						0.09969		

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2,3,3',4,5',6-Hexachlorobiphenyl (161)						0.19938		
2,3,3',4',5,6-Hexachlorobiphenyl (163)						0.09969		
2,3,3',4',5',6-Hexachlorobiphenyl (164)						0.19938		
2,3,4,4',5,6-Hexachlorobiphenyl (166)						0.09969		
2,3',4,4',5,5'-Hexachlorobiphenyl (167)				0.10444 J	3.40709 J	2.54027 J	0.44797 J	4.25315 J
2,3',4,4',5',6-Hexachlorobiphenyl (168)						0.09969		
3,3',4,4',5,5'-Hexachlorobiphenyl (169)				0.09927 UJ	0.09984 UJ	0.09969 UJ	0.09986 UJ	0.09969 UJ
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)				0.39815 J	7.91964 J	5.94554 J	2.35977 J	10.34189 J
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)				0.11464 J	2.2001 J	1.65275 J	0.69304 J	2.9897 J
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)				0.05527 J	1.49578 J	1.1177 J	0.29917 J	1.96033 J
2,2',3,3',4,5,6-Heptachlorobiphenyl (173)						0.19938		
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)				0.15819 J	2.49774 J	1.8837 J	0.90803 J	3.44004 J
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)				0.00687 J	0.2091 J	0.15602 J	0.03317 J	0.29035 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)				0.01468 J	0.25088 J	0.18889 J	0.08379 J	0.35338 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)				0.15236 J	2.66787 J	2.00764 J	0.83546 J	3.4922 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)				0.04312 J	1.0287 J	0.77002 J	0.19393 J	1.35883 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)				0.49014 J	14.52634 J	10.84237 J	2.43824 J	19.56424 J
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)				0.19855 UJ	0.04526 J	0.03338 J	0.19972 UJ	0.06198 J
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)				0.10253 J	2.94512 J	2.19905 J	0.50076 J	4.11565 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)				0.19855 UJ	0.01495 J	0.01103 J	0.19972 UJ	0.01911 J
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)				0.01576 J	0.38152 J	0.28552 J	0.08156 J	0.51327 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)				0.29659 J	6.84018 J	5.12274 J	1.28154 J	9.54086 J
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)				0.00665 J	0.2422 J	0.18038 J	0.03441 J	0.3221 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)				0.07348 J	1.78422 J	1.33522 J	0.3595 J	2.35327 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)				0.00907 J	0.26235 J	0.19587 J	0.05436 J	0.37017 J
2,3,3',4',5,5',6-Heptachlorobiphenyl (193)						0.09969		
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)				0.06321 J	2.36741 J	1.76265 J	0.31816 J	3.19405 J
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)				0.03073 J	0.69848 J	0.52322 J	0.17707 J	0.91123 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)				0.04194 J	1.34202 J	1.0008 J	0.20726 J	1.93445 J
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)				0.0024 J	0.0811 J	0.06044 J	0.19972 UJ	0.11753 J
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)				0.25816 J	7.23644 J	5.40491 J	1.25986 J	10.00778 J
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)						0.03988		
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)				0.0059 J	0.08919 J	0.06733 J	0.03056 J	0.12846 J
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)				0.01549 J	0.42624 J	0.31843 J	0.06397 J	0.64432 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)				0.10307 J	4.07909 J	3.03554 J	0.40125 J	6.04013 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)				0.0034 J	0.12056 J	0.08981 J	0.02664 J	0.16939 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl				0.24728 J	7.61204 J	5.67907 J	1.32025 J	11.95946 J
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl				0.19855 UJ	0.76397 J	0.56346 J	0.10535 J	1.13169 J
Decachlorobiphenyl (209)				0.14678 J	3.66669 J	2.74285 J	0.5704 J	5.61068 J

Table A-18
Summary Statistics and Analytical Results for Largemouth Bass - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-DU-062101-0000-D-F 6/21/2001 REPLICATE	LPX-DU-062101-0000-D-O 6/21/2001 REPLICATE	LPX-DU-062101-0000-D-W 6/21/2001 REPLICATE	LPX-LB-4001-0000-01-F 6/21/2001	LPX-LB-4001-0000-01-O 6/21/2001	LPX-LB-4001-0000-01-W 6/21/2001	LPX-LB-4002-0000-01-F 6/21/2001	LPX-LB-4002-0000-01-O 6/21/2001
PCB Congeners, Total				36.60618 J	872.67414 J	653.23815 J	131.70649 J	1022.33456 J
Toxicity Equivalency (PCB)				0.000902	0.0494	0.0367	0.00405	0.0306
Other (%)								
Lipid_percent				1.14	4.62		0.99	4.5

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

Table A-18
Summary Statistics and Analytical Results for Largemouth Bass - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-LB-4002-0000-01-W 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001 REEXTRACTED	LPX-LB-4003-0000-01-O 6/21/2001	LPX-LB-4003-0000-01-W 6/21/2001	LPX-LB-4004-0000-01-F 6/21/2001 DUPLICATE	LPX-LB-4004-0000-01-F 6/21/2001	LPX-LB-4004-0000-01-O 6/21/2001 DUPLICATE
Semivolatile Organics (ug/Kg)								
1,1'-Biphenyl	0.4 J	0.08 J	0.94 U	0.5 J	0.33 J		0.07 J	
2-Methylnaphthalene	2.72	0.46 J	2.98	3.55	3.36		0.17 J	
Acenaphthene	1.23	0.81 UJ	1.44	1.65	1.58		1.12 UJ	
Acenaphthylene	0.58	0.81 UJ	0.62 J	0.99	0.86		1.12 UJ	
Anthracene	0.95	0.06 J	0.99	1.25	1.16		0.06 J	
Benzo(a)anthracene	0.2 J	0.81 UJ	2.9	3.77	3.48		1.12 UJ	
Benzo(a)pyrene	0.27 J	0.81 UJ	3.73	5.85	5.13		1.12 UJ	
Benzo(b)fluoranthene	0.31 J	0.81 UJ	5.09	7.52	6.7		1.12 UJ	
Benzo(g,h,i)perylene	0.35 J	0.81 UJ	3.72	6.03	5.24		1.12 UJ	
Benzo(k)fluoranthene	0.24 J	0.81 UJ	4.62	6.78	6.05		1.12 UJ	
Chrysene	0.6	0.81 UJ	5.62	7.25	6.7		1.12 UJ	
Dibenzo(a,h)anthracene	0.08 J	0.81 UJ	0.8 J	1.7	1.39		1.12 UJ	
Dibenzofuran	1.12	0.07 J	0.96	1.17	1.1		1.12 UJ	
Fluoranthene	2.42	0.81 U	10.84	9.74	10.11		1.12 U	
Fluorene	2.24	0.08 J	1.54	1.94	1.8		1.12 UJ	
Indeno(1,2,3-cd)pyrene	0.36 J	0.81 UJ	3.87	7.04	5.96		1.12 UJ	
Naphthalene	1.87	0.81 U	3.05 U	3.16	2.09		1.12 U	
Phenanthrene	5.28	0.3 J	7.12 J	7.64	7.46		1.12 U	
Pyrene	0.95	0.81 U	7.59	7.41	7.47		1.12 U	
Total PAH	22.16 J	1.05 J	64.43 J	84.94 J	77.99 J		0.29 J	
Pesticides/PCBs (ug/Kg)								
4,4'-DDD	3.84	0.15 J	39.1	5.71 J	6.28 J		0.79	
4,4'-DDE	59.95 D	0.95 J	3.37	51.03 J	46.99 J		3.09	
4,4'-DDT	2.74	0.06 J	7.4	3.34 J	3.35 J		0.72 U	
Aldrin	0.47 U	R	0.75 U	R	R		R	
alpha-BHC	0.47 U	R	0.75 U	R	R		R	
alpha-Chlordane	8.22	0.72 J	9.9	8.38 J	8.9 J		0.25 J	
Aroclor, Total	1326.1	26.63 J	649.1 J	1243.63 J	1042.08 J		17.37 J	
Aroclor-1016	5.81 U	R	9.35 U	R	R		R	
Aroclor-1221	5.81 U	R	9.35 U	R	R		R	
Aroclor-1232	5.81 U	R	9.35 U	R	R		R	
Aroclor-1242	5.81 U	R	9.35 U	R	R		R	
Aroclor-1248	5.81 U	R	9.35 U	R	R		R	
Aroclor-1254	1316.65 D	25.9 J	594.34 J	1225.33 J	1011.42 J		16.71 J	
Aroclor-1260	5.81 U	R	9.35 U	R	R		R	
Aroclor-1268	9.45	0.72 J	54.76 J	18.3 J	30.66 J		0.67 J	
beta-BHC	0.47 U	R	0.75 U	R	R		R	

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North Providence, RI

PARAMETER	LPX-LB-4002-0000-01-W 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001 REEXTRACTED	LPX-LB-4003-0000-01-O 6/21/2001	LPX-LB-4003-0000-01-W 6/21/2001	LPX-LB-4004-0000-01-F 6/21/2001 DUPLICATE	LPX-LB-4004-0000-01-F 6/21/2001	LPX-LB-4004-0000-01-O 6/21/2001 DUPLICATE
delta-BHC	0.47 U	R	0.75 UJ	R	R		R	
Dieldrin	2.24	0.19 J	2.55	1.89 J	2.12 J		R	
Endosulfan I	0.47 U	R	0.75 U	R	R		R	
Endosulfan II	0.47 U	R	0.75 U	R	R		R	
Endosulfan Sulfate	0.47 U	R	0.75 U	R	R		R	
Endrin	0.47 U	R	0.75 U	R	R		R	
Endrin Aldehyde	0.47 U	R	0.75 UJ	R	R		R	
Endrin Ketone	0.47 U	R	0.75 U	R	R		R	
gamma-BHC	0.47 U	R	0.75 UJ	R	R		R	
gamma-Chlordane	3.3	0.14 J	3.8	3.92 J	3.88 J		0.03 J	
Heptachlor	0.47 U	R	0.75 U	R	R		R	
Heptachlor Epoxide	0.47 U	R	0.75 U	R	R		R	
Methoxychlor	0.47 U	R	0.75 U	R	R		R	
Technical Chlordane	106.25	5.19 J	136.5 J	112.9 J	120.9 J		3.19 J	
Toxaphene	11.63 U	R	9.35 U	R	R		R	
Inorganics (mg/Kg)								
Aluminum	2.52	0.561 J		101	67		0.685 J	
Antimony	0.034 U	0.034 U		0.034 U	0.034 U		0.034 U	
Arsenic	0.0399 U	0.034 U		0.0533 U	0.0468 U		0.034 U	
Barium	0.537	0.0215 J		2.45 J	1.63 J		0.0195 J	
Beryllium	0.00603 U	0.004 U		0.0164	0.0108		0.004 U	
Cadmium	0.00847 J	0.2 U		0.0197 J	0.013 J		0.2 U	
Chromium	0.269 U	0.269 U		0.436	0.288		0.269 U	
Cobalt	0.0787 J	0.0123 J		0.145 J	0.1 J		0.0138 J	
Copper	0.4 J	0.225 J		1.69	1.19		0.136 J	
Iron	15.2 J	3.4 J		140	93.7		2.62 J	
Lead	0.048 J	0.0017 J		0.557 J	0.369 J		0.00347 J	
Manganese	2.49	0.281		22.1	14.7		0.164	
Mercury	0.112 U	0.149 U		0.0791 U	0.103 U		0.33 U	
Mercury (methyl)	0.107	0.137		0.0812	0.1		0.33	
Molybdenum	0.0235 J	0.32 U		0.0673 J	0.0445 J		0.32 U	
Nickel	0.139 J	0.0352 J		0.249 J	0.177 J		0.0222 J	
Selenium	0.223 J	0.153 J		0.249 J	0.216 J		0.102 J	
Silver	0.06 U	0.06 U		0.06 U	0.06 U		0.06 U	
Thallium	0.00509 J	0.00308 J		0.00643 J	0.00529 J		0.00163 J	
Vanadium	0.179 U	0.179 U		0.167 J	0.11 J		0.179 U	
Zinc	19.9 J	12.9 J		25.2 J	21 J		4.07 J	

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PARAMETER	LPX-LB-4002-0000-01-W 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001 REEXTRACTED	LPX-LB-4003-0000-01-O 6/21/2001	LPX-LB-4003-0000-01-W 6/21/2001	LPX-LB-4004-0000-01-F 6/21/2001 DUPLICATE	LPX-LB-4004-0000-01-F 6/21/2001	LPX-LB-4004-0000-01-O 6/21/2001 DUPLICATE
Dioxins/Furans (ug/Kg)								
HCX	0.0205 J	0.03995 UJ		0.03992 UJ	0.03993 UJ		0.03993 UJ	
TCX	R	R		R	R		R	
2,3,7,8-TCDD	0.27205 J	0.00972 J		0.18103 J	0.12295 J		0.01049 J	
1,2,3,7,8-PeCDD	0.00047 J	0.00014 UJ		0.00025 J	0.00017 J		0.00025 UJ	
1,2,3,4,7,8-HxCDD	0.0003 UJ	0.00018 UJ		0.00038 UJ	0.00031 UJ		0.00013 UJ	
1,2,3,6,7,8-HxCDD	0.0002 J	0.00019 UJ		0.00038 UJ	0.00032 UJ		0.00014 UJ	
1,2,3,7,8,9-HxCDD	0.00028 UJ	0.00018 UJ		0.00036 UJ	0.0003 UJ		0.00013 UJ	
1,2,3,4,6,7,8-HpCDD	0.0005 UJ	0.00026 UJ		0.00057 J	0.00038 J		0.00023 UJ	
OCDD	0.00058 UJ	0.00052 UJ		0.00371 UJ	0.00263 UJ		0.00042 UJ	
2,3,7,8-TCDF	0.00029 J	0.00013 UJ		0.0003 J	0.0002 J		0.00016 UJ	
1,2,3,7,8-PeCDF	0.00025 UJ	0.00018 UJ		0.00032 UJ	0.00027 UJ		0.00023 UJ	
2,3,4,7,8-PeCDF	0.00018 J	0.00018 UJ		0.00031 UJ	0.00027 UJ		0.00023 UJ	
1,2,3,4,7,8-HxCDF	0.00011 UJ	0.00014 UJ		0.00036 UJ	0.00029 UJ		0.00009 UJ	
1,2,3,6,7,8-HxCDF	0.00033 UJ	0.00009 UJ		0.00035 UJ	0.00026 UJ		0.00001 UJ	
2,3,4,6,7,8-HxCDF	0.00035 UJ	0.0001 UJ		0.00036 UJ	0.00027 UJ		0.00013 UJ	
1,2,3,7,8,9-HxCDF	0.00038 UJ	0.0001 UJ		0.0004 UJ	0.0003 UJ		0.00014 UJ	
1,2,3,4,6,7,8-HpCDF	0.00039 UJ	0.00015 UJ		0.00022 UJ	0.0002 UJ		0.00014 UJ	
1,2,3,4,7,8,9-HpCDF	0.00047 UJ	0.00016 UJ		0.00084 UJ	0.00061 UJ		0.00013 UJ	
OCDF	0.00042 UJ	0.00011 UJ		0.00026 UJ	0.00021 UJ		0.00022 UJ	
Total TCDD	0.27205 J	0.00972 J		0.18103 J	0.12295 J		0.01049 J	
Total PeCDD	0.00047 J	0.00014 UJ		0.00025 J	0.00017 J		0.00025 UJ	
Total HxCDD	0.0002 J	0.00018 UJ		0.00037 UJ	0.00031 UJ		0.00002 UJ	
Total HpCDD	0.0005 UJ	0.00026 UJ		0.00057 UJ	0.00046 UJ		0.00023 UJ	
Total TCDF	0.00042 J	0.00013 UJ		0.0003 J	0.0002 J		0.00003 UJ	
Total PeCDF	0.00034 J	0.00018 UJ		0.00084 J	0.00056 J		0.00023 UJ	
Total HxCDF	0.00011 UJ	0.00014 UJ		0.00037 UJ	0.00029 UJ		0.0001 UJ	
Total HpCDF	0.00043 UJ	0.00015 UJ		0.00022 UJ	0.0002 UJ		0.00013 UJ	
Toxicity Equivalency (Dioxins, Furans, HCX)	0.273	0.00972		0.181	0.123		0.0105	
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)	0.0399 UJ	0.00606 UJ		0.02317 UJ	0.03993 UJ		0.00448 UJ	
4-Chlorobiphenyl (3)	0.0399 UJ	0.00527 UJ		0.01396 UJ	0.03993 UJ		0.00399 UJ	
2,2'-Dichlorobiphenyl (4)	0.16859 J	0.02351 UJ		0.17279 J	0.11421 J		0.09982 J	
2,3-Dichlorobiphenyl (5)	0.00602 J	0.00999 UJ		0.00513 J	0.00339 J		0.00998 UJ	
2,3'-Dichlorobiphenyl (6)	0.08499 J	0.011 UJ		0.0635 J	0.04197 J		0.01038 UJ	
2,4-Dichlorobiphenyl (7)	0.01778 J	0.00999 UJ		0.01371 J	0.00906 J		0.00998 UJ	
2,4'-Dichlorobiphenyl (8)	0.37359 J	0.03988 UJ		0.27865 J	0.18418 J		0.03556 UJ	
2,5-Dichlorobiphenyl (9)	0.03372 J	0.00999 UJ		0.02141 J	0.01415 J		0.00998 UJ	

US EPA ARCHIVE DOCUMENT

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PARAMETER	LPX-LB-4002-0000-01-W 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001	LPX-LB-4003-0000-01-F 6/21/2001 REEXTRACTED	LPX-LB-4003-0000-01-O 6/21/2001	LPX-LB-4003-0000-01-W 6/21/2001	LPX-LB-4004-0000-01-F 6/21/2001 DUPLICATE	LPX-LB-4004-0000-01-F 6/21/2001	LPX-LB-4004-0000-01-O 6/21/2001 DUPLICATE
2,6-Dichlorobiphenyl (10)	0.00929 J	0.00999 UJ		0.00778 J	0.00514 J		0.00998 UJ	
3,4-Dichlorobiphenyl (12)	0.00286 J	0.01997 UJ		0.01996 UJ	0.01996 UJ		0.01996 UJ	
3,4'-Dichlorobiphenyl (13)	0.01995				0.01996			
2,2',3'-Trichlorobiphenyl (16)	0.70065 J	0.03153 UJ		0.38065 J	0.25161 J		0.02936 UJ	
2,2',4-Trichlorobiphenyl (17)	0.92464 J	0.03686 J		0.47235 J	0.32471 J		0.03838 J	
2,2',5-Trichlorobiphenyl (18)	1.82335 J	0.07894 J		0.98828 J	0.68 J		0.07692 J	
2,2',6-Trichlorobiphenyl (19)	0.16839 J	0.01169 J		0.09243 J	0.06506 J		0.00827 J	
2,3,3'-Trichlorobiphenyl (20)	9.82449 J	0.30752 J		4.62388 J	3.16059 J		0.367 J	
2,3,4-Trichlorobiphenyl (21)	0.09975				0.09982			
2,3,4'-Trichlorobiphenyl (22)	1.37751 J	0.05464 UJ		0.55072 J	0.36402 J		0.06111 UJ	
2,3,6-Trichlorobiphenyl (24)	0.1877 J	0.0079 J		0.10126 J	0.06961 J		0.00866 J	
2,3',4-Trichlorobiphenyl (25)	0.34678 J	0.00775 UJ		0.11933 J	0.07888 J		0.01275 J	
2,3',5-Trichlorobiphenyl (26)	1.05879 J	0.0277 UJ		0.40078 J	0.26491 J		0.03612 J	
2,3',6-Trichlorobiphenyl (27)	0.0399				0.03993			
2,4,4'-Trichlorobiphenyl (28)	0.09975				0.09982			
2,4,5-Trichlorobiphenyl (29)	0.0399				0.03993			
2,4,6-Trichlorobiphenyl (30)	0.09975				0.09982			
2,4',5-Trichlorobiphenyl (31)	3.51578 J	0.0871 UJ		1.3338 J	0.88163 J		0.13369 UJ	
2,4',6-Trichlorobiphenyl (32)		0.03007 J		0.36783 J			0.0288 J	
2,3',4'-Trichlorobiphenyl (33)	0.09975				0.09982			
2,2',3,3'-Tetrachlorobiphenyl (40)	3.65914 J	0.13041 J		1.65051 J	1.13518 J		0.14403 J	
2,2',3,4-Tetrachlorobiphenyl (41)	0.09975				0.09982			
2,2',3,4'-Tetrachlorobiphenyl (42)	2.72737 J	0.08868 J		1.21468 J	0.83295 J		0.10614 J	
2,2',3,5-Tetrachlorobiphenyl (43)	22.85177 J	0.65073 J		11.46306 J	7.79757 J		0.98526 J	
2,2',3,5'-Tetrachlorobiphenyl (44)	4.22006 J	0.1152 J		2.36679 J	1.60348 J		0.14457 J	
2,2',3,6-Tetrachlorobiphenyl (45)	1.0449 J	0.03862 J		0.4705 J	0.32409 J		0.03986 J	
2,2',3,6'-Tetrachlorobiphenyl (46)	0.2531 J	0.00673 UJ		0.10696 J	0.0707 J		0.00858 J	
2,2',4,4'-Tetrachlorobiphenyl (47)	0.09975				0.09982			
2,2',4,5-Tetrachlorobiphenyl (48)	1.37175 J	0.0416 J		0.65574 J	0.44754 J		0.05003 J	
2,2',4,5'-Tetrachlorobiphenyl (49)	9.3916 J	0.2523 J		4.69032 J	3.18579 J		0.3546 J	
2,2',4,6-Tetrachlorobiphenyl (50)	0.95344 J	0.03446 J		0.39956 J	0.27579 J		0.03066 J	
2,2',4,6'-Tetrachlorobiphenyl (51)	0.0399				0.03993			
2,2',5,5'-Tetrachlorobiphenyl (52)	0.0399				0.03993			
2,2',5,6'-Tetrachlorobiphenyl (53)	0.0399				0.03993			
2,3,3',4'-Tetrachlorobiphenyl (56)	2.40192 J	0.08267 J		1.27057 J	0.86786 J		0.11579 J	
2,3,3',6-Tetrachlorobiphenyl (59)	7.08371 J	0.27312 J		3.51516 J	2.41608 J		0.2835 J	
2,3,4,4'-Tetrachlorobiphenyl (60)	1.84955 J	0.07785 J		1.35549 J	0.92236 J		0.07476 J	
2,3,4,5-Tetrachlorobiphenyl (61)	17.99459 J	0.4634 J		10.31212 J	6.97331 J		0.70216 J	

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2,3,4,6-Tetrachlorobiphenyl (62)	0.0399				0.03993			
2,3,4',5-Tetrachlorobiphenyl (63)	0.68265 J	0.01698 J		0.47242 J	0.31802 J		0.02419 J	
2,3,4',6-Tetrachlorobiphenyl (64)	4.70188 J	0.17283 J		2.61886 J	1.78963 J		0.20382 J	
2,3,5,6-Tetrachlorobiphenyl (65)	0.09975				0.09982			
2,3',4,4'-Tetrachlorobiphenyl (66)	20.03466 J	0.62186 J		13.1121 J	8.87779 J		0.83035 J	
2,3',4,6-Tetrachlorobiphenyl (69)	0.09975				0.09982			
2,3',4',5-Tetrachlorobiphenyl (70)	0.09975				0.09982			
2,3',4',6-Tetrachlorobiphenyl (71)	0.09975				0.09982			
2,3',5',6-Tetrachlorobiphenyl (73)	0.0399				0.03993			
2,3',4',5-Tetrachlorobiphenyl (74)	0.09975				0.09982			
2,4,4',6-Tetrachlorobiphenyl (75)	0.0399				0.03993			
2,3',4',5-Tetrachlorobiphenyl (76)	0.09975				0.09982			
3,3',4,4'-Tetrachlorobiphenyl (77)	0.3206 J	0.01053 J		0.24071 J	0.16268 J		0.01687 J	
3,4,4',5-Tetrachlorobiphenyl (81)	0.09975 UJ	0.09987 UJ		0.09979 UJ	0.09982 UJ		0.09982 UJ	
2,2',3,3',4-Pentachlorobiphenyl (82)	3.95665 J	0.15031 J		2.57974 J	1.75614 J		0.14714 J	
2,2',3,3',5-Pentachlorobiphenyl (83)	35.12971 J	0.81944 J		26.79034 J	17.98595 J		1.0974 J	
2,2',3,3',6-Pentachlorobiphenyl (84)	5.00769 J	0.22808 J		3.5003 J	2.39099 J		0.18605 J	
2,2',3,4,4'-Pentachlorobiphenyl (85)	11.68387 J	0.35442 J		7.89963 J	5.34173 J		0.37518 J	
2,2',3,4,5-Pentachlorobiphenyl (86)	31.65931 J	1.0593 J		22.84758 J	15.46114 J		1.15542 J	
2,2',3,4,5'-Pentachlorobiphenyl (87)	0.09975				0.09982			
2,2',3,4,6-Pentachlorobiphenyl (88)	4.59579 J	0.16506 J		3.18438 J	2.1608 J		0.18034 J	
2,2',3,4,6'-Pentachlorobiphenyl (89)	0.17042 J	0.00771 J		0.09751 J	0.06707 J		0.09982 UJ	
2,2',3,4',5-Pentachlorobiphenyl (90)	62.09928 J	1.48497 J		47.08815 J	31.62823 J		2.0679 J	
2,2',3,4',6-Pentachlorobiphenyl (91)	0.09975				0.09982			
2,2',3,5,5'-Pentachlorobiphenyl (92)	9.59443 J	0.24063 J		7.07416 J	4.75753 J		0.34709 J	
2,2',3,5,6-Pentachlorobiphenyl (93)	21.49861 J	0.8072 J		15.3053 J	10.3903 J		0.8653 J	
2,2',3,5',6-Pentachlorobiphenyl (95)	0.09975				0.09982			
2,2',3,4',5'-Pentachlorobiphenyl (97)	0.09975				0.09982			
2,2',3,4',6'-Pentachlorobiphenyl (98)	0.09975				0.09982			
2,2',4,4',5-Pentachlorobiphenyl (99)	0.09975				0.09982			
2,2',4,4',6-Pentachlorobiphenyl (100)	0.09975				0.09982			
2,2',4,5,5'-Pentachlorobiphenyl (101)	0.1995				0.19963			
2,2',4,5,6'-Pentachlorobiphenyl (102)	0.09975				0.09982			
2,3,3',4,4'-Pentachlorobiphenyl (105)	11.78662 J	0.37511 J		8.46636 J	5.72335 J		0.38753 J	
2,3,3',4,5-Pentachlorobiphenyl (106)	6.15234 J	0.15095 J		4.80171 J	3.22506 J		0.19944 J	
2,3,3',4',5-Pentachlorobiphenyl (107)	0.1995				0.19963			
2,3,3',4',5'-Pentachlorobiphenyl (108)	1.70734 J	0.04094 J		1.0292 J	0.69417 J		0.06042 J	
2,3,3',4,6-Pentachlorobiphenyl (109)	0.09975				0.09982			

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2,3,3',4',6-Pentachlorobiphenyl (110)	50.0705 J	1.65808 J		31.51618 J	21.39399 J		1.83218 J	
2,3,3',5,5'-Pentachlorobiphenyl (111)	0.09975				0.09982			
2,3,3',5',6-Pentachlorobiphenyl (113)	0.1995				0.19963			
2,3,4,4',5-Pentachlorobiphenyl (114)	1.10644 J	0.03286 J		0.78684 J	0.53123 J		0.04538 J	
2,3,4,4',6-Pentachlorobiphenyl (115)	0.1995				0.19963			
2,3,4,5,6-Pentachlorobiphenyl (116)	0.0399				0.03993			
2,3,4',5,6-Pentachlorobiphenyl (117)	0.0399				0.03993			
2,3',4,4',5-Pentachlorobiphenyl (118)	56.19197 J	1.74523 J		45.84738 J	30.89632 J		2.12305 J	
2,3',4,4',6-Pentachlorobiphenyl (119)	0.09975				0.09982			
2,3',4,5',6-Pentachlorobiphenyl (121)	0.09975				0.09982			
2,3,3',4',5'-Pentachlorobiphenyl (122)	0.09975				0.09982			
2,3',4,4',5'-Pentachlorobiphenyl (123)	0.09975				0.09982			
2,3',4',5,5'-Pentachlorobiphenyl (124)	0.09975				0.09982			
2,3',4',5',6-Pentachlorobiphenyl (125)	0.09975				0.09982			
3,3',4,4',5-Pentachlorobiphenyl (126)	0.10113 J	0.00573 J		0.08934 J	0.061 J		0.19964 UJ	
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	11.24774 J	0.3762 J		7.71084 J	5.22433 J		0.37562 J	
2,2',3,3',4,5-Hexachlorobiphenyl (129)	39.76425 J	1.87356 J		50.75012 J	34.18049 J		2.4702 J	
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	3.86301 J	0.11639 J		2.94067 J	1.98321 J		0.13147 J	
2,2',3,3',4,6-Hexachlorobiphenyl (131)	0.04266 UJ	0.01509 J		0.37861 J	0.25537 J		0.01551 J	
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	8.74573 J	0.34184 J		6.32992 J	4.2999 J		0.32242 J	
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1.27229 J	0.05594 J		1.0481 J	0.71175 J		0.06274 J	
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	6.43121 J	0.16938 J		4.45815 J	3.00422 J		0.25761 J	
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1.536 J	0.04977 J		0.90939 J	0.61797 J		0.05522 J	
2,2',3,4,4',5-Hexachlorobiphenyl (137)	6.48481 J	0.1762 J		4.81336 J	3.24132 J		0.23686 J	
2,2',3,4,4',5'-Hexachlorobiphenyl (138)	0.09975				0.09982			
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	6.94049 J	0.18533 J		5.5503 J	3.73152 J		0.24465 J	
2,2',3,4,5,6'-Hexachlorobiphenyl (143)	0.09975				0.09982			
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1.23923 J	0.0296 J		0.95998 J	0.64457 J		0.03913 J	
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	7.26855 J	0.13578 J		5.07338 J	4.06048 J		0.20504 J	
2,2',3,4',5,6-Hexachlorobiphenyl (147)	26.85713 J	0.8181 J		20.69508 J	13.95659 J		1.13154 J	
2,2',3,4',5',6-Hexachlorobiphenyl (149)	0.09975				0.09982			
2,2',3,5,5',6-Hexachlorobiphenyl (151)	0.09975				0.09982			
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	51.39896 J	0.82082 J		41.55354 J	27.74475 J		1.29566 J	
2,2',4,4',5,6'-Hexachlorobiphenyl (154)	0.09975				0.09982			
2,3,3',4,4',5-Hexachlorobiphenyl (156)	6.62743 J	0.1434 J		5.0229 J	3.3687 J		0.19808 J	
2,3,3',4,4',5'-Hexachlorobiphenyl (157)	0.09975				0.09982			
2,3,3',4,4',6-Hexachlorobiphenyl (158)	6.24888 J	0.16325 J		4.51279 J	3.03825 J		0.18745 J	
2,3,3',4,5,6-Hexachlorobiphenyl (160)	0.09975				0.09982			

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2,3,3',4,5',6-Hexachlorobiphenyl (161)	0.1995				0.19963			
2,3,3',4',5,6-Hexachlorobiphenyl (163)	0.09975				0.09982			
2,3,3',4',5',6-Hexachlorobiphenyl (164)	0.1995				0.19963			
2,3,4,4',5,6-Hexachlorobiphenyl (166)	0.09975				0.09982			
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	2.8533 J	0.06761 J		2.18274 J	1.46569 J		0.08302 J	
2,3',4,4',5',6-Hexachlorobiphenyl (168)	0.09975				0.09982			
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.09975 UJ	0.09987 UJ		0.09979 UJ	0.09982 UJ		0.09982 UJ	
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	7.40543 J	0.29459 J		5.52007 J	3.74858 J		0.30991 J	
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	2.14481 J	0.0812 J		1.66126 J	1.1256 J		0.08386 J	
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1.34922 J	0.03606 J		1.15203 J	0.77371 J		0.0565 J	
2,2',3,3',4,5,6-Heptachlorobiphenyl (173)	0.1995				0.19963			
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	2.50857 J	0.11745 J		1.68872 J	1.15604 J		0.11442 J	
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	0.19574 J	0.00392 J		0.1388 J	0.09307 J		0.00698 J	
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	0.2542 J	0.00978 J		0.16914 J	0.11512 J		0.01127 J	
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	2.51484 J	0.09318 J		2.04145 J	1.38097 J		0.12915 J	
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	0.93029 J	0.01959 J		0.59937 J	0.40282 J		0.03724 J	
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	13.26393 J	0.30822 J		11.47672 J	7.69049 J		0.48026 J	
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	0.03918 J	0.19973 UJ		0.02164 J	0.0143 J		0.19964 UJ	
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	2.78581 J	0.05975 J		2.15401 J	1.44404 J		0.09732 J	
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	0.01208 J	0.19973 UJ		0.01064 J	0.00703 J		0.19964 UJ	
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	0.35445 J	0.0101 J		0.2232 J	0.15096 J		0.01129 J	
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	6.50242 J	0.17996 J		4.41509 J	2.97934 J		0.3927 J	
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.21626 J	0.09987 UJ		0.19024 J	0.12575 J		0.00853 J	
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1.6198 J	0.04054 J		1.21824 J	0.81899 J		0.06253 J	
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	0.25399 J	0.19973 UJ		0.23272 J	0.15383 J		0.01043 J	
2,3,3',4',5,5',6-Heptachlorobiphenyl (193)	0.09975				0.09982			
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	2.13607 J	0.04635 J		1.43147 J	0.9619 J		0.08225 J	
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	0.64115 J	0.02106 J		0.44717 J	0.30271 J		0.03118 J	
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1.29905 J	0.03108 J		0.95015 J	0.63858 J		0.05292 J	
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	0.07429 J	0.19973 UJ		0.07558 J	0.04996 J		0.19964 UJ	
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	6.7896 J	0.20958 J		5.01466 J	3.38569 J		0.34236 J	
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)	0.0399				0.03993			
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	0.09244 J	0.19973 UJ		0.06264 J	0.0414 J		0.19964 UJ	
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	0.43082 J	0.01653 J		0.35805 J	0.24227 J		0.01804 J	
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	3.9657 J	0.08362 J		2.95816 J	1.98366 J		0.11237 J	
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	0.11688 J	0.19973 UJ		0.09681 J	0.06399 J		0.19964 UJ	
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	8.04551 J	0.22862 J		5.96897 J	4.02294 J		0.48055 J	
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	0.75412 J	0.19973 UJ		0.65359 J	0.43202 J		0.03831 J	
Decachlorobiphenyl (209)	3.75646 J	0.14665 J		2.91433 J	1.97606 J		0.202 J	

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PCB Congeners, Total	694.69067 J	20.44633 J		514.54872 J	347.04318 J		26.34632 J	
Toxicity Equivalency (PCB)	0.0209	0.000875		0.0173	0.0118	-	0.000376	
Other (%)								
Lipid_percent		0.593		3.14		0.598	0.447	1.84

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Semivolatile Organics (ug/Kg)								
1,1'-Biphenyl	0.57 J	0.19 J	0.32 J	0.28 J	0.51 J	0.22 J	0.75	0.59
2-Methylnaphthalene	3.38	0.57 J	2.03	1.61	1.46	0.39 J	2.96	2.16
Acenaphthene	0.96 J	0.58 U	0.57 U	0.57 U	1.13	0.82 U	2.15	1.48
Acenaphthylene	0.38 J	0.05 J	0.21 J	0.16 J	0.39 J	0.82 U	0.98	0.68
Anthracene	0.75 J	0.08 J	0.42 J	0.32 J	0.66	0.11 J	1.73	1.22
Benzo(a)anthracene	0.73 J	0.07 J	0.16 J	0.14 J	0.13 J	0.07 J	0.43 J	0.32 J
Benzo(a)pyrene	0.84 J	0.58 U	0.35 J	0.25 J	0.58 U	0.82 U	0.58	0.4
Benzo(b)fluoranthene	1.65	0.2 J	0.36 J	0.31 J	0.17 J	0.2 J	0.67	0.52
Benzo(g,h,i)perylene	2.08	0.58 U	0.64	0.45	0.59	0.82 U	0.85	0.59
Benzo(k)fluoranthene	1.41	0.16 J	0.32 J	0.28 J	0.58 U	0.18 J	0.57 J	0.44 J
Chrysene	1.45	0.14 J	0.58	0.45	0.32 J	0.17 J	1.09	0.81
Dibenzo(a,h)anthracene	0.55 J	0.58 U	0.57 U	0.57 U	0.58 U	0.12 J	0.21 J	0.18 J
Dibenzofuran	*0.91 J*	*0.14 J*	*0.54 J*	*0.42 J*	*0.84*	*0.22 J*	*1.97*	*1.43*
Fluoranthene	2.77	0.39 J	1.92	1.49	1.68	0.44 J	4.47	3.22
Fluorene	1.72	0.17 J	0.82	0.64	1.49	0.27 J	6.71	4.71
Indeno(1,2,3-cd)pyrene	1.67	0.26 J	0.53 J	0.45 J	0.35 J	0.35 J	0.8	0.66
Naphthalene	2.99	0.76	1.75	1.47	1.63	0.82 U	2.59	1.79
Phenanthrene	5.24	0.46 J	2.52	1.93	2.97	0.62 J	7.4	5.3
Pyrene	1.59	0.58 U	0.77	0.55	0.76	0.82 U	1.97	1.36
Total PAH	31.65 J	3.66 J	14.23 J	11.22 J	15.06 J	3.36 J	38.87 J	27.85 J
Pesticides/PCBs (ug/Kg)								
4,4'-DDD	11.22 J	1.15 J	7.83 J	5.92	11.84 J	1.72 J	5.93 J	4.63
4,4'-DDE	77.14 J	6.18 J	84.14 J	61.95 D	117.26 J	7.99 J	177.73 J	125.07 D
4,4'-DDT	4.32 J	0.34 J	2.58 J	1.94	4.49 J	0.75 J	3.8 J	2.86
Aldrin	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
alpha-BHC	1.1 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
alpha-Chlordane	8.19 J	0.8 J	4.2 J	3.23	8.22 J	1.43 J	8.39 J	6.23
Aroclor, Total	1946.1 J	174.88 J	1923.72 J	1425.85	2918.28 J	175.66 J	3349.86 J	2365.14
Aroclor-1016	13.65 UJ	5.77 UJ	5.71 UJ	5.73 U	R	8.18 UJ	R	6.44 U
Aroclor-1221	13.65 UJ	5.77 UJ	5.71 UJ	5.73 U	R	8.18 UJ	R	6.44 U
Aroclor-1232	13.65 UJ	5.77 UJ	5.71 UJ	5.73 U	R	8.18 UJ	R	6.44 U
Aroclor-1242	13.65 UJ	5.77 UJ	5.71 UJ	5.73 U	R	8.18 UJ	R	6.44 U
Aroclor-1248	13.65 UJ	5.77 UJ	5.71 UJ	5.73 U	R	8.18 UJ	R	6.44 U
Aroclor-1254	1864.92 J	165.39 J	1870.59 J	1385.14 D	2850.58 J	167.98 J	3332.9 J	2351.05 D
Aroclor-1260	13.65 UJ	5.77 UJ	5.71 UJ	5.73 U	R	8.18 UJ	R	6.44 U
Aroclor-1268	81.18 J	9.49 J	53.14 J	40.71	67.71 J	7.68 J	16.97 J	14.09
beta-BHC	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U

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delta-BHC	1.1 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Dieldrin	2.51 J	0.18 J	0.82 J	0.64	1.14 J	0.37 J	2.09 J	1.56
Endosulfan I	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Endosulfan II	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Endosulfan Sulfate	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Endrin	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Endrin Aldehyde	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Endrin Ketone	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
gamma-BHC	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
gamma-Chlordane	3.01 J	0.24 J	1.66 J	1.26	2.76 J	0.41 J	3.43 J	2.49
Heptachlor	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Heptachlor Epoxide	1.09 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Methoxychlor	1.1 UJ	0.46 UJ	0.46 UJ	0.46 U	R	0.66 UJ	R	0.52 U
Technical Chlordane	180.2 J	18.92 J	140.98 J	106.23	215.57 J	26.74 J	176.96 J	130.36
Toxaphene	27.31 UJ	11.54 UJ	11.41 UJ	11.45 U	R	16.36 UJ	R	12.88 U
Inorganics (mg/Kg)								
Aluminum	3.81	0.557 J	7.28	5.37	1.21	1.02 J	8.65	6.28
Antimony	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U
Arsenic	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.0481 U	0.0437 U
Barium	1.91	0.0784 J	1.62 J	1.18 J	0.573 J	0.021 J	0.612 J	0.429 J
Beryllium	0.00618 U	0.004 U	0.00509 U	0.00478 U	0.00634 U	0.004 U	0.004 U	0.004 U
Cadmium	0.0276 J	0.2 U	0.0235 J	0.0168 J	0.0297 J	0.2 U	0.0128 J	0.00883 J
Chromium	0.269 U	0.269 U	0.269 U	0.269 U	0.269 U	0.269 U	0.269 U	0.269 U
Cobalt	0.117 J	0.0105 J	0.119 J	0.0881 J	0.0844 J	0.00761 J	0.0546 J	0.04 J
Copper	1.51 J	0.277 J	1.19 J	0.93 J	0.913 J	0.277 J	1.7 J	1.26 J
Iron	32 J	3.28 J	40.6 J	30 J	33.7 J	3.93 J	32.4 J	23.6 J
Lead	0.139 J	0.00583 J	0.1 J	0.0732 J	0.0818 J	0.022 U	0.0911 J	0.0628 J
Manganese	9.49	0.649	8.29	6.11	3.42	0.103	2.45	1.72
Mercury	0.192 U	0.3 U	0.224 U	0.246 U	0.239 U	0.189 U	0.141 U	0.156 U
Mercury (methyl)	0.214	0.312	0.216	0.243	0.25	0.187	0.148	0.16
Molybdenum	0.0613 J	0.32 U	0.0479 J	0.0343 J	0.046 J	0.0308 J	0.32 U	0.00956 U
Nickel	0.214 J	0.0251 J	0.189 J	0.142 J	0.118 J	0.0202 J	0.0989 J	0.0745 J
Selenium	0.234 J	0.129 J	0.206 J	0.184 J	0.281 J	0.139 J	0.217 U	0.0431 U
Silver	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Thallium	0.00422 J	0.00245 J	0.00496 J	0.00425 J	0.0045 J	0.00297 J	0.00582 J	0.00494 J
Vanadium	0.0673 J	0.179 U	0.0562 J	0.0402 J	0.179 U	0.179 U	0.0372 J	0.0257 J
Zinc	20.2 J	7.06 J	16.4 J	13.7 J	24.4 J	5.7 J	15.7 J	12.6 J

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Dioxins/Furans (ug/Kg)								
HCX	0.04 UJ	0.03978 UJ	0.02353 J	0.01683 J	0.04848 J	0.01986 UJ	0.0223 J	0.01538 J
TCX	R	R	R	R	R	R	R	R
2,3,7,8-TCDD	0.12234 J	0.01578 J	0.15793 J	0.11746 J	0.44062 J	0.02222 J	0.33174 J	0.23572 J
1,2,3,7,8-PeCDD	0.00019 J	0.00018 UJ	0.00047 J	0.00034 J	0.0004	0.0002 UJ	0.00068 J	0.00047 J
1,2,3,4,7,8-HxCDD	0.00045 UJ	0.00004 UJ	0.00012 J	0.00009 J	0.00013 UJ	0.00015 UJ	0.00007 J	0.00005 J
1,2,3,6,7,8-HxCDD	0.00046 UJ	0.00004 UJ	0.00025 J	0.00018 J	0.0002 J	0.00016 UJ	0.00028 J	0.00019 J
1,2,3,7,8,9-HxCDD	0.00043 UJ	0.00004 UJ	0.00032 UJ	0.00024 UJ	0.00004 J	0.00014 UJ	0.00006 J	0.00004 J
1,2,3,4,6,7,8-HpCDD	0.00141 UJ	0.00028 UJ	0.00024 UJ	0.00025 UJ	0.00023 UJ	0.00015 UJ	0.00037 J	0.00026 J
OCDD	0.00038 UJ	0.00038 UJ	0.00098 UJ	0.00081 UJ	0.00047 UJ	0.00019 UJ	0.00091 UJ	0.00069 UJ
2,3,7,8-TCDF	0.00016 J	0.00018 UJ	0.00024 J	0.00017 J	0.00016 J	0.00013 UJ	0.00026 J	0.00018 J
1,2,3,7,8-PeCDF	0.00035 UJ	0.00026 UJ	0.00056 J	0.0004 J	0.00019 UJ	0.00017 UJ	0.00015 UJ	0.00016 UJ
2,3,4,7,8-PeCDF	0.00035 UJ	0.00025 UJ	0.00049 J	0.00035 J	0.00032	0.00015 UJ	0.00014 UJ	0.00014 UJ
1,2,3,4,7,8-HxCDF	0.0001 UJ	0.00009 UJ	0.0004 UJ	0.00031 UJ	0.00008 UJ	0.00006 UJ	0.0001 UJ	0.00009 UJ
1,2,3,6,7,8-HxCDF	0.00034 UJ	0.00003 UJ	0.00034 J	0.00024 J	0.00016 J	0.00008 UJ	0.00013 UJ	0.00011 UJ
2,3,4,6,7,8-HxCDF	0.00036 UJ	0.00003 UJ	0.00017 J	0.00012 J	0.00011 UJ	0.00008 UJ	0.00019 UJ	0.00016 UJ
1,2,3,7,8,9-HxCDF	0.00039 UJ	0.00004 UJ	0.00017 J	0.00012 J	0.00012 UJ	0.0001 UJ	0.0002 UJ	0.00017 UJ
1,2,3,4,6,7,8-HpCDF	0.00052 UJ	0.00014 UJ	0.00019 UJ	0.00018 UJ	0.00005 UJ	0.00008 UJ	0.00035 UJ	0.00027 UJ
1,2,3,4,7,8,9-HpCDF	0.00061 UJ	0.00013 UJ	0.00008 J	0.00006 J	0.00013 UJ	0.00012 UJ	0.00039 UJ	0.00031 UJ
OCDF	0.00064 UJ	0.00022 UJ	0.00014 UJ	0.00016 UJ	0.00008 UJ	0.00017 UJ	0.00011 UJ	0.00013 UJ
Total TCDD	0.12234 J	0.01578 J	0.15793 J	0.11746 J	0.44062 J	0.02222 J	0.33174 J	0.23572 J
Total PeCDD	0.00019 J	0.00018 UJ	0.00047 J	0.00034 J	0.00197 J	0.00043 UJ	0.00068 J	0.00047 J
Total HxCDD	0.00045 UJ	0.00002 UJ	0.00043 J	0.00031 J	0.00024 J	0.00015 UJ	0.00041 J	0.00028 J
Total HpCDD	0.00141 UJ	0.00006 UJ	0.00024 UJ	0.00019 UJ	0.00023 UJ	0.00015 UJ	0.00037 UJ	0.0003 UJ
Total TCDF	0.00016 J	0.00018 UJ	0.00024 J	0.00017 J	0.00042 J	0.00013 UJ	0.00032 J	0.00022 J
Total PeCDF	0.00034 J	0.00025 UJ	0.00105 J	0.00075 J	0.00032	0.00016 UJ	0.00093 J	0.00064 J
Total HxCDF	0.0001 UJ	0.00009 UJ	0.00108 UJ	0.0008 UJ	0.00024 UJ	0.00006 UJ	0.0005 UJ	0.00036 UJ
Total HpCDF	0.00056 UJ	0.00013 UJ	0.00036 UJ	0.00029 UJ	0.00023 UJ	0.00002 UJ	0.00014 UJ	0.0001 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.123	0.0158	0.159	0.118	0.441	0.0222	0.332	0.236
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)	0.01251 UJ	0.00657 UJ	0.01497 UJ	0.03979 UJ				
4-Chlorobiphenyl (3)	0.00814 UJ	0.00499 UJ	0.01024 UJ	0.03979 UJ				
2,2'-Dichlorobiphenyl (4)	0.0607 J	0.01585 UJ	0.05698 J	0.04076 J				
2,3-Dichlorobiphenyl (5)	0.00514 J	0.00995 UJ	0.00995 UJ	0.00995 UJ				
2,3'-Dichlorobiphenyl (6)	0.04114 J	0.00913 UJ	0.03726 J	0.02665 J				
2,4-Dichlorobiphenyl (7)	0.01053 J	0.00995 UJ	0.00855 J	0.00612 J				
2,4'-Dichlorobiphenyl (8)	0.16421 J	0.03896 UJ	0.15395 J	0.11012 J				
2,5-Dichlorobiphenyl (9)	0.0151 J	0.00369 UJ	0.01455 J	0.01041 J				

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2,6-Dichlorobiphenyl (10)	0.00472 J	0.00995 UJ	0.00297 J	0.00212 J				
3,4-Dichlorobiphenyl (12)	0.00514 J	0.01989 UJ	0.01989 UJ	0.01989 UJ				
3,4'-Dichlorobiphenyl (13)				0.01989				
2,2',3'-Trichlorobiphenyl (16)	0.19007 J	0.03503 UJ	0.19421 J	0.13892 J				
2,2',4-Trichlorobiphenyl (17)	0.26469 J	0.04045 J	0.24961 J	0.19006 J				
2,2',5-Trichlorobiphenyl (18)	0.52632 J	0.0871 J	0.52098 J	0.39746 J				
2,2',6-Trichlorobiphenyl (19)	0.05737 J	0.00957 J	0.05416 J	0.04147 J				
2,3,3'-Trichlorobiphenyl (20)	3.54388 J	0.39684 J	3.5502 J	2.65248 J				
2,3,4-Trichlorobiphenyl (21)				0.09947				
2,3,4'-Trichlorobiphenyl (22)	0.48959 J	0.06216 UJ	0.39915 J	0.28552 J				
2,3,6-Trichlorobiphenyl (24)	0.05118 J	0.0092 J	0.05344 J	0.04085 J				
2,3',4-Trichlorobiphenyl (25)	0.10838 J	0.01075 UJ	0.08945 J	0.06398 J				
2,3',5-Trichlorobiphenyl (26)	0.33568 J	0.03802 J	0.31738 J	0.23785 J				
2,3',6-Trichlorobiphenyl (27)				0.03979				
2,4,4'-Trichlorobiphenyl (28)				0.09947				
2,4,5-Trichlorobiphenyl (29)				0.03979				
2,4,6-Trichlorobiphenyl (30)				0.09947				
2,4',5-Trichlorobiphenyl (31)	1.35144 J	0.10871 UJ	0.92949 J	0.66488 J				
2,4',6-Trichlorobiphenyl (32)	0.20633 J	0.03197 J	0.19108 J					
2,3',4'-Trichlorobiphenyl (33)				0.09947				
2,2',3,3'-Tetrachlorobiphenyl (40)	1.42548 J	0.18468 J	1.48128 J	1.11215 J				
2,2',3,4-Tetrachlorobiphenyl (41)				0.09947				
2,2',3,4'-Tetrachlorobiphenyl (42)	1.07313 J	0.11729 J	1.0456 J	0.78132 J				
2,2',3,5-Tetrachlorobiphenyl (43)	10.39524 J	1.09653 J	11.08539 J	8.24168 J				
2,2',3,5'-Tetrachlorobiphenyl (44)	1.87059 J	0.19164 J	2.43876 J	1.79903 J				
2,2',3,6-Tetrachlorobiphenyl (45)	0.33574 J	0.0412 J	0.3189 J	0.23984 J				
2,2',3,6'-Tetrachlorobiphenyl (46)	0.07434 J	0.01119 J	0.07871 J	0.05949 J				
2,2',4,4'-Tetrachlorobiphenyl (47)				0.09947				
2,2',4,5-Tetrachlorobiphenyl (48)	0.47945 J	0.0625 J	0.56611 J	0.42274 J				
2,2',4,5'-Tetrachlorobiphenyl (49)	4.1503 J	0.37706 J	4.34502 J	3.21539 J				
2,2',4,6-Tetrachlorobiphenyl (50)	0.275 J	0.03594 J	0.2854 J	0.21438 J				
2,2',4,6'-Tetrachlorobiphenyl (51)				0.03979				
2,2',5,5'-Tetrachlorobiphenyl (52)				0.03979				
2,2',5,6'-Tetrachlorobiphenyl (53)				0.03979				
2,3,3',4'-Tetrachlorobiphenyl (56)	1.08791 J	0.0824 J	0.64555 J	0.48523 J				
2,3,3',6-Tetrachlorobiphenyl (59)	2.60649 J	0.3363 J	2.77029 J	2.07736 J				
2,3,4,4'-Tetrachlorobiphenyl (60)	0.78604 J	0.15056 J	1.18734 J	0.89218 J				
2,3,4,5-Tetrachlorobiphenyl (61)	8.6638 J	0.63812 J	7.93664 J	5.85884 J				

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2,3,4,6-Tetrachlorobiphenyl (62)				0.03979				
2,3,4',5-Tetrachlorobiphenyl (63)	0.33326 J	0.02985 J	0.45107 J	0.33115 J				
2,3,4',6-Tetrachlorobiphenyl (64)	2.01694 J	0.21874 J	1.87472 J	1.40328 J				
2,3,5,6-Tetrachlorobiphenyl (65)				0.09947				
2,3',4,4'-Tetrachlorobiphenyl (66)	9.54959 J	1.38958 J	15.50604 J	11.48725 J				
2,3',4,6-Tetrachlorobiphenyl (69)				0.09947				
2,3',4',5-Tetrachlorobiphenyl (70)				0.09947				
2,3',4',6-Tetrachlorobiphenyl (71)				0.09947				
2,3',5',6-Tetrachlorobiphenyl (73)				0.03979				
2,3',4',5-Tetrachlorobiphenyl (74)				0.09947				
2,4,4',6-Tetrachlorobiphenyl (75)				0.03979				
2,3',4',5-Tetrachlorobiphenyl (76)				0.09947				
3,3',4,4'-Tetrachlorobiphenyl (77)	0.15437 J	0.00977 UJ	0.10608 J	0.07588 J				
3,4,4',5-Tetrachlorobiphenyl (81)	0.09999 UJ	0.09946 UJ	0.09948 UJ	0.09947 UJ				
2,2',3,3',4-Pentachlorobiphenyl (82)	1.378 J	0.09946 UJ	1.57039 J	1.12332 J				
2,2',3,3',5-Pentachlorobiphenyl (83)	15.0191 J	2.0933 J	34.70178 J	25.41853 J				
2,2',3,3',6-Pentachlorobiphenyl (84)	1.62474 J	0.20126 J	1.55077 J	1.16658 J				
2,2',3,4,4'-Pentachlorobiphenyl (85)	4.60179 J	0.91668 J	10.42815 J	7.72035 J				
2,2',3,4,5-Pentachlorobiphenyl (86)	12.75162 J	2.05578 J	21.93828 J	16.27797 J				
2,2',3,4,5'-Pentachlorobiphenyl (87)				0.09947				
2,2',3,4,6-Pentachlorobiphenyl (88)	1.77894 J	0.25862 J	2.52624 J	1.88068 J				
2,2',3,4,6'-Pentachlorobiphenyl (89)	0.04546 J	0.0065 J	0.04469 J	0.03382 J				
2,2',3,4',5-Pentachlorobiphenyl (90)	27.36144 J	3.82107 J	59.17419 J	43.41581 J				
2,2',3,4',6-Pentachlorobiphenyl (91)				0.09947				
2,2',3,5,5'-Pentachlorobiphenyl (92)	4.50816 J	0.54132 J	7.09391 J	5.22847 J				
2,2',3,5,6-Pentachlorobiphenyl (93)	8.2688 J	1.024 J	9.4536 J	7.05379 J				
2,2',3,5',6-Pentachlorobiphenyl (95)				0.09947				
2,2',3,4',5'-Pentachlorobiphenyl (97)				0.09947				
2,2',3,4',6'-Pentachlorobiphenyl (98)				0.09947				
2,2',4,4',5-Pentachlorobiphenyl (99)				0.09947				
2,2',4,4',6-Pentachlorobiphenyl (100)				0.09947				
2,2',4,5,5'-Pentachlorobiphenyl (101)				0.19894				
2,2',4,5,6'-Pentachlorobiphenyl (102)				0.09947				
2,3,3',4,4'-Pentachlorobiphenyl (105)	4.68364 J	1.06187 J	12.33706 J	9.12715 J				
2,3,3',4,5-Pentachlorobiphenyl (106)	2.74944 J	0.41901 J	6.12945 J	4.50376 J				
2,3,3',4',5-Pentachlorobiphenyl (107)				0.19894				
2,3,3',4',5'-Pentachlorobiphenyl (108)	0.7825 J	0.07738 J	0.99382 J	0.73292 J				
2,3,3',4,6-Pentachlorobiphenyl (109)				0.09947				

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2,3,3',4',6-Pentachlorobiphenyl (110)	19.53554 J	3.11354 J	29.84594 J	22.23554 J				
2,3,3',5,5'-Pentachlorobiphenyl (111)				0.09947				
2,3,3',5',6-Pentachlorobiphenyl (113)				0.19894				
2,3,4,4',5-Pentachlorobiphenyl (114)	0.48744 J	0.08289 J	0.86495 J	0.64231 J				
2,3,4,4',6-Pentachlorobiphenyl (115)				0.19894				
2,3,4,5,6-Pentachlorobiphenyl (116)				0.03979				
2,3,4',5,6-Pentachlorobiphenyl (117)				0.03979				
2,3',4,4',5-Pentachlorobiphenyl (118)	25.36384 J	5.31553 J	67.53156 J	49.81939 J				
2,3',4,4',6-Pentachlorobiphenyl (119)				0.09947				
2,3',4,5',6-Pentachlorobiphenyl (121)				0.09947				
2,3,3',4',5'-Pentachlorobiphenyl (122)				0.09947				
2,3',4,4',5'-Pentachlorobiphenyl (123)				0.09947				
2,3',4',5,5'-Pentachlorobiphenyl (124)				0.09947				
2,3',4',5',6-Pentachlorobiphenyl (125)				0.09947				
3,3',4,4',5-Pentachlorobiphenyl (126)	0.0521 J	0.02972 J	0.10156 J	0.08111 J				
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	4.0268 J	1.03944 J	12.41582 J	9.1771 J				
2,2',3,3',4,5-Hexachlorobiphenyl (129)	15.0602 J	6.182 J	90.605 J	66.57077 J				
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1.43987 J	0.23416 J	3.40887 J	2.50507 J				
2,2',3,3',4,6-Hexachlorobiphenyl (131)	0.14479 J	0.03318 J	0.39971 J	0.29536 J				
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	3.04346 J	0.36311 J	4.4472 J	3.28451 J				
2,2',3,3',5,6-Hexachlorobiphenyl (134)	0.46862 J	0.04514 J	0.81736 J	0.59752 J				
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	2.92101 J	0.26445 J	3.98247 J	2.92399 J				
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	0.5062 J	0.03653 J	0.40167 J	0.29772 J				
2,2',3,4,4',5-Hexachlorobiphenyl (137)	2.53128 J	0.52942 J	8.07114 J	5.9241 J				
2,2',3,4,4',5'-Hexachlorobiphenyl (138)				0.09947				
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	2.82469 J	0.51583 J	8.19671 J	6.01005 J				
2,2',3,4,5,6'-Hexachlorobiphenyl (143)				0.09947 J				
2,2',3,4,5',6-Hexachlorobiphenyl (144)	0.49731 J	0.07074 J	1.1665 J	0.85455 J				
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	3.46714 J	0.34328 J	9.13818 J	6.63438 J				
2,2',3,4',5,6-Hexachlorobiphenyl (147)	11.44766 J	1.8202 J	23.89194 J	17.60838 J				
2,2',3,4',5',6-Hexachlorobiphenyl (149)				0.09947				
2,2',3,5,5',6-Hexachlorobiphenyl (151)				0.09947				
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	22.0771 J	2.19994 J	68.02408 J	49.28473 J				
2,2',4,4',5,6'-Hexachlorobiphenyl (154)				0.09947				
2,3,3',4,4',5-Hexachlorobiphenyl (156)	2.76894 J	0.493 J	8.85588 J	6.47507 J				
2,3,3',4,4',5'-Hexachlorobiphenyl (157)				0.09947				
2,3,3',4,4',6-Hexachlorobiphenyl (158)	2.30572 J	0.47276 J	7.37145 J	5.40747 J				
2,3,3',4,5,6-Hexachlorobiphenyl (160)				0.09947				

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2,3,3',4,5',6-Hexachlorobiphenyl (161)				0.19894				
2,3,3',4',5,6-Hexachlorobiphenyl (163)				0.09947				
2,3,3',4',5',6-Hexachlorobiphenyl (164)				0.19894				
2,3,4,4',5,6-Hexachlorobiphenyl (166)				0.09947				
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1.13314 J	0.20295 J	3.81238 J	2.78482 J				
2,3',4,4',5',6-Hexachlorobiphenyl (168)				0.09947				
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.09999 UJ	0.09946 UJ	0.09948 UJ	0.09947 UJ				
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	2.83494 J	1.04975 J	9.44379 J	7.05411 J				
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	0.75274 J	0.25842 J	2.44026 J	1.81912 J				
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	0.56234 J	0.0933 J	1.58046 J	1.15708 J				
2,2',3,3',4,5,6-Heptachlorobiphenyl (173)				0.19894				
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	0.84541 J	0.21654 J	1.64646 J	1.23938 J				
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	0.06437 J	0.01208 J	0.20479 J	0.14993 J				
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	0.06962 J	0.01186 J	0.10557 J	0.07964 J				
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	0.91799 J	0.15944 J	1.4707 J	1.0974 J				
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	0.36288 J	0.04288 J	0.59221 J	0.43582 J				
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	5.7829 J	0.95802 J	17.1538 J	12.54305 J				
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	0.01807 J	0.19892 UJ	0.04461 J	0.03191 J				
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	1.1073 J	0.17878 J	3.1332 J	2.29211 J				
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	0.00601 J	0.19892 UJ	0.01253 J	0.00896 J				
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	0.13975 J	0.0187 J	0.26174 J	0.19255 J				
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	4.17982 J	0.47644 J	7.07063 J	5.19334 J				
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.11144 J	0.01405 J	0.29884 J	0.21776 J				
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	0.70041 J	0.13483 J	1.84146 J	1.3556 J				
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	0.10099 J	0.02259 J	0.31616 J	0.23258 J				
2,3,3',4',5,5',6-Heptachlorobiphenyl (193)				0.09947				
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	0.93001 J	0.15402 J	2.49748 J	1.83032 J				
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	0.27113 J	0.07631 J	0.73453 J	0.54714 J				
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	0.45669 J	0.0782 J	1.28067 J	0.93834 J				
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	0.03396 J	0.00429 J	0.08511 J	0.0621 J				
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	3.09062 J	0.40264 J	6.09324 J	4.47319 J				
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)				0.03979				
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	0.0242 J	0.19892 UJ	0.02742 J	0.01961 J				
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	0.14383 J	0.01801 J	0.33882 J	0.24749 J				
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1.5013 J	0.12817 J	3.32645 J	2.41594 J				
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	0.04892 J	0.00605 J	0.12496 J	0.09111 J				
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	3.17727 J	0.36212 J	6.83806 J	4.99444 J				
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	0.24768 J	0.03885 J	0.6395 J	0.4685 J				
Decachlorobiphenyl (209)	1.3345 J	0.12586 J	3.15144 J	2.29009 J				

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PCB Congeners, Total	290.18285 J	46.48363 J	652.9949 J	480.32834 J				
Toxicity Equivalency (PCB)	0.00988	0.0039	0.0231	0.0177				
Other (%)								
Lipid_percent	3.09	0.181	1.05		2.48	1.01	4.15	

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Semivolatile Organics (ug/Kg)								
1,1'-Biphenyl	0.34 J	0.27 J	0.29 J	0.22 J	0.53 J	0.16 J	0.41 J	0.32 J
2-Methylnaphthalene	0.73	2.46	1.84	1.67	4.99	0.94	2.85	2.21
Acenaphthene	0.63 U	0.63 J	0.4 J	0.36 J	1.46	0.22 J	1.29	0.93
Acenaphthylene	0.63 U	0.28 J	0.18 J	0.15 J	0.73	0.11 J	0.42 J	0.31 J
Anthracene	0.12 J	0.52 J	0.38 J	0.19 J	1.25	0.11 J	0.57 J	0.41 J
Benzo(a)anthracene	0.63 U	0.11 J	0.07 J	0.84 U	0.34 J	0.59 U	0.22 J	0.14 J
Benzo(a)pyrene	0.63 U	0.68 U	0.66 U	0.84 U	0.26 J	0.59 U	0.21 J	0.14 J
Benzo(b)fluoranthene	0.63 U	0.68 U	0.66 U	0.84 U	0.47 J	0.59 U	0.27 J	0.18 J
Benzo(g,h,i)perylene	0.63 U	0.68 U	0.66 U	0.84 U	0.54	0.59 U	0.79 U	0.72 U
Benzo(k)fluoranthene	0.63 U	0.68 U	0.66 U	0.84 U	0.4 J	0.59 U	0.27 J	0.18 J
Chrysene	0.11 J	0.34 J	0.26 J	0.18 J	1.26	0.09 J	0.65 J	0.46 J
Dibenzo(a,h)anthracene	0.63 U	0.68 U	0.66 U	0.84 U	0.83 U	0.59 U	0.79 U	0.72 U
Dibenzofuran	0.23 J	0.63 J	0.49 J	0.36 J	1.18	0.34 J	0.93	0.73
Fluoranthene	0.47 J	1.92	1.4	0.58 J	2.76	0.36 J	1.99	1.44
Fluorene	0.22 J	1.13	0.8	0.53 J	3.82	0.37 J	1.6	1.18
Indeno(1,2,3-cd)pyrene	0.1 J	0.14 J	0.13 J	0.18 J	0.49 J	0.12 J	0.29 J	0.24 J
Naphthalene	1.07	1.88	1.59	1.94	4.66	1.36	2.6	2.18
Phenanthrene	0.79	3.21	2.34	1.33	5.65	0.81	3.11	2.33
Pyrene	0.63 U	0.88	0.56	0.84 U	1.19	0.59 U	3.95	2.61
Total PAH	4.17 J	14.41 J	10.74 J	7.7 J	31.98 J	4.99 J	21.64 J	16 J
Pesticides/PCBs (ug/Kg)								
4,4'-DDD	0.78 J	6.49 J	4.44	2.5 J	4.94	1.06 J	6.48 J	4.65
4,4'-DDE	5.51 J	48.96 J	33.39 D	8.65 J	20.45	7.43 J	62.29 J	43.73 D
4,4'-DDT	0.24 J	2.47 J	1.67	0.68 J	3.34	0.17 J	4.01 J	2.71
Aldrin	0.5 UJ	R	0.53 U	0.67 UJ	0.66 U	R	R	0.58 U
alpha-BHC	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U
alpha-Chlordane	1.07 J	5.46 J	3.89	3.63 J	10.1	1.45 J	6.86 J	5.03
Aroclor, Total	140.3 J	1687.09 J	1132.69	180.78 J	442.37	138.87 J	1894.78 J	1300.63
Aroclor-1016	6.27 UJ	R	6.59 U	8.39 UJ	8.3 U	R	R	7.24 U
Aroclor-1221	6.27 UJ	R	6.59 U	8.39 UJ	8.3 U	R	R	7.24 U
Aroclor-1232	6.27 UJ	R	6.59 U	8.39 UJ	8.3 U	R	R	7.24 U
Aroclor-1242	6.27 UJ	R	6.59 U	8.39 UJ	8.3 U	R	R	7.24 U
Aroclor-1248	6.27 UJ	R	6.59 U	8.39 UJ	8.3 U	R	R	7.24 U
Aroclor-1254	133.76 J	1651.06 J	1107.23 D	173.55 J	430.63	135.86 J	1878.52 J	1288.86 D
Aroclor-1260	6.27 UJ	R	6.59 U	8.39 UJ	8.3 U	R	R	7.24 U
Aroclor-1268	6.54 J	36.03 J	25.46	7.23 J	11.73	3 J	16.26 J	11.77
beta-BHC	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U

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delta-BHC	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U
Dieldrin	0.2 J	1.63 J	1.12	0.62 J	2.61	0.26 J	1.55 J	1.11
Endosulfan I	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U
Endosulfan II	0.5 UJ	R	0.53 U	0.67 UJ	0.66 U	R	R	0.58 U
Endosulfan Sulfate	0.5 UJ	R	0.53 U	0.67 UJ	0.66 U	R	R	0.58 U
Endrin	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U
Endrin Aldehyde	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U
Endrin Ketone	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U
gamma-BHC	0.5 UJ	R	0.53 U	0.67 UJ	0.66 U	R	R	0.58 U
gamma-Chlordane	0.31 J	2.01 J	1.4	1.21 J	4.15	0.45 J	2.8 J	2
Heptachlor	0.5 UJ	R	0.53 U	0.67 UJ	0.66 U	R	R	0.58 U
Heptachlor Epoxide	0.5 UJ	R	0.53 U	0.67 UJ	0.66 U	R	R	0.58 U
Methoxychlor	0.5 UJ	R	0.53 U	0.67 UJ	0.67 U	R	R	0.58 U
Technical Chlordane	16.95 J	104 J	72.8	41.82 J	136.01	23.87 J	150.62 J	107.73
Toxaphene	12.54 UJ	R	13.19 U	16.78 UJ	16.59 U	R	R	14.48 U
Inorganics (mg/Kg)								
Aluminum	5.34	8.23	7.19	1.12 U	2.98	1.12 U	2.54	1.68
Antimony	0.00194 J	0.034 U	0.000695 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U
Arsenic	0.066 U	0.0929 U	0.0833 U	0.0392 U	0.0628 U	0.034 U	0.0383 U	0.0368 U
Barium	0.0564	1.05	0.694	0.018 U	0.555 J	0.212 J	2.17	1.51
Beryllium	0.004 U	0.0072	0.00462	0.004 U	0.00125 J	0.004 U	0.00443	0.00293
Cadmium	0.2 U	0.00823 J	0.00528 J	0.2 U	0.004 J	0.00304 J	0.0177 J	0.0127 J
Chromium	0.269 U	0.193 J	0.124 J	0.035 J	0.123 J	0.0659 J	0.198 J	0.153 J
Cobalt	0.014 J	0.0511 J	0.0378 J	0.0045 J	0.00163 U	0.0134 J	0.0392 J	0.0305 J
Copper	1.71 J	0.653 J	1.03 J	0.265	0.741	0.306	1.42	1.04
Iron	3.05	31.5	21.3	2.99 J	14.7 J	3.22 J	25.5 J	18 J
Lead	0.00611 J	0.195 J	0.127 J	0.022 U	0.0356 J	0.0144 J	0.0795 J	0.0575 J
Manganese	0.195 J	2.24	1.51	0.165 J	4.14 J	0.471 J	5.63	3.88
Mercury	0.398	0.304	0.338	0.111 J	0.0916 J	0.235 J	0.158 J	0.184 J
Mercury (methyl)	0.41	0.222 J	0.289 J	0.116	0.0917	0.235	0.186	0.203
Molybdenum	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Nickel	0.0408 J	0.0778 J	0.0645 J	0.32 U	0.0386 J	0.0265 J	0.0841 J	0.0646 J
Selenium	0.448 U	0.448 U	0.448 U	0.131 J	0.201 J	0.13 J	0.171 J	0.157 J
Silver	0.06 U	0.06 U	0.06 U	0.00768 J	0.0214 J	0.0184 J	0.0219 J	0.0207 J
Thallium	0.00294 J	0.00435 J	0.00384 J	0.0032 J	0.00508 J	0.00218 J	0.00466 J	0.00382 J
Vanadium	0.179 U	0.0692 J	0.0444 J	0.179 UJ	0.0207 J	0.179 UJ	0.0346 J	0.0229 J
Zinc	6.68 J	18.4	14.2	6.29	15.3	7.87	15	12.6

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Dioxins/Furans (ug/Kg)								
HCX	0.00649 J	0.01964 J	0.01493 J	0.01994 UJ	0.01341 J	0.01997 UJ	0.02404 J	0.01591 J
TCX	R	R	R	R	R	R	R	R
2,3,7,8-TCDD	0.02982 J	0.12646 J	0.09182 J	0.03111 J	0.2888 J	0.01414 J	0.20569 J	0.14088 J
1,2,3,7,8-PeCDD	0.00018 UJ	0.00032 J	0.00021 J	0.00015 UJ	0.00044 J	0.00022 UJ	0.00037 J	0.00024 J
1,2,3,4,7,8-HxCDD	0.00016 UJ	0.00029 UJ	0.00024 UJ	0.00017 UJ	0.00006 J	0.00022 UJ	0.00024 UJ	0.00023 UJ
1,2,3,6,7,8-HxCDD	0.00017 UJ	0.00021 J	0.00013 J	0.00017 UJ	0.00028 J	0.00024 UJ	0.00022 J	0.00015 J
1,2,3,7,8,9-HxCDD	0.00016 UJ	0.00027 UJ	0.00023 UJ	0.00016 UJ	0.00007 J	0.00022 UJ	0.00024 UJ	0.00023 UJ
1,2,3,4,6,7,8-HpCDD	0.00022 UJ	0.00031 J	0.0002 J	0.00027 UJ	0.00033 J	0.0002 UJ	0.00028 UJ	0.00025 UJ
OCDD	0.0003 UJ	0.00059 UJ	0.00049 UJ	0.00026 UJ	0.00068 UJ	0.00023 UJ	0.00094 UJ	0.0007 UJ
2,3,7,8-TCDF	0.00004 UJ	0.0003 J	0.00019 J	0.00004 UJ	0.0003 J	0.00012 UJ	0.00014 J	0.00009 J
1,2,3,7,8-PeCDF	0.00016 UJ	0.00018 UJ	0.00017 UJ	0.00018 UJ	0.00015 UJ	0.00018 UJ	0.00021 UJ	0.0002 UJ
2,3,4,7,8-PeCDF	0.00016 UJ	0.00018 UJ	0.00017 UJ	0.00017 UJ	0.00016 UJ	0.00018 UJ	0.00021 UJ	0.0002 UJ
1,2,3,4,7,8-HxCDF	0.00006 UJ	0.00006 UJ	0.00007 UJ	0.0001 UJ	0.00013 UJ	0.00007 UJ	0.00009 UJ	0.00008 UJ
1,2,3,6,7,8-HxCDF	0.00006 UJ	0.00008 UJ	0.00007 UJ	0.0001 UJ	0.00011 UJ	0.00012 UJ	0.00004 UJ	0.00007 UJ
2,3,4,6,7,8-HxCDF	0.00007 UJ	0.0002 UJ	0.00015 UJ	0.0001 UJ	0.00016 UJ	0.00012 UJ	0.00023 UJ	0.00019 UJ
1,2,3,7,8,9-HxCDF	0.00008 UJ	0.00022 UJ	0.00017 UJ	0.00011 UJ	0.00018 UJ	0.00014 UJ	0.00026 UJ	0.00022 UJ
1,2,3,4,6,7,8-HpCDF	0.00011 UJ	0.00045 UJ	0.00033 UJ	0.00016 UJ	0.00012 UJ	0.00011 UJ	0.00009 UJ	0.0001 UJ
1,2,3,4,7,8,9-HpCDF	0.00013 UJ	0.0005 UJ	0.00037 UJ	0.00019 UJ	0.00036 UJ	0.00014 UJ	0.00046 UJ	0.00035 UJ
OCDF	0.0002 UJ	0.00022 UJ	0.00021 UJ	0.00023 UJ	0.00014 UJ	0.00024 UJ	0.00009 UJ	0.00014 UJ
Total TCDD	0.02982 J	0.12646 J	0.09182 J	0.03111 J	0.2888 J	0.01414 J	0.20569 J	0.14088 J
Total PeCDD	0.00036 UJ	0.00279 J	0.00179 J	0.00046 UJ	0.0016 J	0.00004 UJ	0.00223 J	0.00148 J
Total HxCDD	0.00016 UJ	0.00021 J	0.00013 J	0.00016 UJ	0.00041 J	0.00023 UJ	0.00027 J	0.00018 J
Total HpCDD	0.00022 UJ	0.00031 UJ	0.00028 UJ	0.00027 UJ	0.00043 UJ	0.0002 UJ	0.00028 UJ	0.00025 UJ
Total TCDF	0.00004 UJ	0.00037 J	0.00024 J	0.00004 UJ	0.00053 J	0.00012 UJ	0.00026 J	0.00017 J
Total PeCDF	0.00016 UJ	0.00014 J	0.00009 J	0.00017 UJ	0.00015 J	0.00018 UJ	0.00021 UJ	0.0002 UJ
Total HxCDF	0.00006 UJ	0.0003 UJ	0.00021 UJ	0.0001 UJ	0.0002 UJ	0.00007 UJ	0.00027 UJ	0.0002 UJ
Total HpCDF	0.00012 UJ	0.00048 UJ	0.00035 UJ	0.00018 UJ	0.00013 UJ	0.00012 UJ	0.00026 UJ	0.00021 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.0298	0.127	0.0921	0.0311	0.289	0.0141	0.206	0.141
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)								
4-Chlorobiphenyl (3)								
2,2'-Dichlorobiphenyl (4)								
2,3-Dichlorobiphenyl (5)								
2,3'-Dichlorobiphenyl (6)								
2,4-Dichlorobiphenyl (7)								
2,4'-Dichlorobiphenyl (8)								
2,5-Dichlorobiphenyl (9)								

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2,6-Dichlorobiphenyl (10)								
3,4-Dichlorobiphenyl (12)								
3,4'-Dichlorobiphenyl (13)								
2,2',3'-Trichlorobiphenyl (16)								
2,2',4-Trichlorobiphenyl (17)								
2,2',5-Trichlorobiphenyl (18)								
2,2',6-Trichlorobiphenyl (19)								
2,3,3'-Trichlorobiphenyl (20)								
2,3,4-Trichlorobiphenyl (21)								
2,3,4'-Trichlorobiphenyl (22)								
2,3,6-Trichlorobiphenyl (24)								
2,3',4-Trichlorobiphenyl (25)								
2,3',5-Trichlorobiphenyl (26)								
2,3',6-Trichlorobiphenyl (27)								
2,4,4'-Trichlorobiphenyl (28)								
2,4,5-Trichlorobiphenyl (29)								
2,4,6-Trichlorobiphenyl (30)								
2,4',5-Trichlorobiphenyl (31)								
2,4',6-Trichlorobiphenyl (32)								
2,3',4'-Trichlorobiphenyl (33)								
2,2',3,3'-Tetrachlorobiphenyl (40)								
2,2',3,4-Tetrachlorobiphenyl (41)								
2,2',3,4'-Tetrachlorobiphenyl (42)								
2,2',3,5-Tetrachlorobiphenyl (43)								
2,2',3,5'-Tetrachlorobiphenyl (44)								
2,2',3,6-Tetrachlorobiphenyl (45)								
2,2',3,6'-Tetrachlorobiphenyl (46)								
2,2',4,4'-Tetrachlorobiphenyl (47)								
2,2',4,5-Tetrachlorobiphenyl (48)								
2,2',4,5'-Tetrachlorobiphenyl (49)								
2,2',4,6-Tetrachlorobiphenyl (50)								
2,2',4,6'-Tetrachlorobiphenyl (51)								
2,2',5,5'-Tetrachlorobiphenyl (52)								
2,2',5,6'-Tetrachlorobiphenyl (53)								
2,3,3',4'-Tetrachlorobiphenyl (56)								
2,3,3',6-Tetrachlorobiphenyl (59)								
2,3,4,4'-Tetrachlorobiphenyl (60)								
2,3,4,5-Tetrachlorobiphenyl (61)								

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2,3,4,6-Tetrachlorobiphenyl (62)								
2,3,4',5-Tetrachlorobiphenyl (63)								
2,3,4',6-Tetrachlorobiphenyl (64)								
2,3,5,6-Tetrachlorobiphenyl (65)								
2,3',4,4'-Tetrachlorobiphenyl (66)								
2,3',4,6-Tetrachlorobiphenyl (69)								
2,3',4',5-Tetrachlorobiphenyl (70)								
2,3',4',6-Tetrachlorobiphenyl (71)								
2,3',5',6-Tetrachlorobiphenyl (73)								
2,3',4',5-Tetrachlorobiphenyl (74)								
2,4,4',6-Tetrachlorobiphenyl (75)								
2,3',4',5-Tetrachlorobiphenyl (76)								
3,3',4,4'-Tetrachlorobiphenyl (77)								
3,4,4',5-Tetrachlorobiphenyl (81)								
2,2',3,3',4-Pentachlorobiphenyl (82)								
2,2',3,3',5-Pentachlorobiphenyl (83)								
2,2',3,3',6-Pentachlorobiphenyl (84)								
2,2',3,4,4'-Pentachlorobiphenyl (85)								
2,2',3,4,5-Pentachlorobiphenyl (86)								
2,2',3,4,5'-Pentachlorobiphenyl (87)								
2,2',3,4,6-Pentachlorobiphenyl (88)								
2,2',3,4,6'-Pentachlorobiphenyl (89)								
2,2',3,4',5-Pentachlorobiphenyl (90)								
2,2',3,4',6-Pentachlorobiphenyl (91)								
2,2',3,5,5'-Pentachlorobiphenyl (92)								
2,2',3,5,6-Pentachlorobiphenyl (93)								
2,2',3,5',6-Pentachlorobiphenyl (95)								
2,2',3,4',5'-Pentachlorobiphenyl (97)								
2,2',3,4',6'-Pentachlorobiphenyl (98)								
2,2',4,4',5-Pentachlorobiphenyl (99)								
2,2',4,4',6-Pentachlorobiphenyl (100)								
2,2',4,5,5'-Pentachlorobiphenyl (101)								
2,2',4,5,6'-Pentachlorobiphenyl (102)								
2,3,3',4,4'-Pentachlorobiphenyl (105)								
2,3,3',4,5-Pentachlorobiphenyl (106)								
2,3,3',4',5-Pentachlorobiphenyl (107)								
2,3,3',4',5'-Pentachlorobiphenyl (108)								
2,3,3',4,6-Pentachlorobiphenyl (109)								

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2,3,3',4',6-Pentachlorobiphenyl (110)								
2,3,3',5,5'-Pentachlorobiphenyl (111)								
2,3,3',5',6-Pentachlorobiphenyl (113)								
2,3,4,4',5-Pentachlorobiphenyl (114)								
2,3,4,4',6-Pentachlorobiphenyl (115)								
2,3,4,5,6-Pentachlorobiphenyl (116)								
2,3,4',5,6-Pentachlorobiphenyl (117)								
2,3',4,4',5-Pentachlorobiphenyl (118)								
2,3',4,4',6-Pentachlorobiphenyl (119)								
2,3',4,5',6-Pentachlorobiphenyl (121)								
2,3,3',4',5'-Pentachlorobiphenyl (122)								
2,3',4,4',5'-Pentachlorobiphenyl (123)								
2,3',4',5,5'-Pentachlorobiphenyl (124)								
2,3',4',5',6-Pentachlorobiphenyl (125)								
3,3',4,4',5-Pentachlorobiphenyl (126)								
2,2',3,3',4,4'-Hexachlorobiphenyl (128)								
2,2',3,3',4,5-Hexachlorobiphenyl (129)								
2,2',3,3',4,5'-Hexachlorobiphenyl (130)								
2,2',3,3',4,6-Hexachlorobiphenyl (131)								
2,2',3,3',4,6'-Hexachlorobiphenyl (132)								
2,2',3,3',5,6-Hexachlorobiphenyl (134)								
2,2',3,3',5,6'-Hexachlorobiphenyl (135)								
2,2',3,3',6,6'-Hexachlorobiphenyl (136)								
2,2',3,4,4',5-Hexachlorobiphenyl (137)								
2,2',3,4,4',5'-Hexachlorobiphenyl (138)								
2,2',3,4,5,5'-Hexachlorobiphenyl (141)								
2,2',3,4,5,6'-Hexachlorobiphenyl (143)								
2,2',3,4,5',6-Hexachlorobiphenyl (144)								
2,2',3,4',5,5'-Hexachlorobiphenyl (146)								
2,2',3,4',5,6-Hexachlorobiphenyl (147)								
2,2',3,4',5',6-Hexachlorobiphenyl (149)								
2,2',3,5,5',6-Hexachlorobiphenyl (151)								
2,2',4,4',5,5'-Hexachlorobiphenyl (153)								
2,2',4,4',5,6'-Hexachlorobiphenyl (154)								
2,3,3',4,4',5-Hexachlorobiphenyl (156)								
2,3,3',4,4',5'-Hexachlorobiphenyl (157)								
2,3,3',4,4',6-Hexachlorobiphenyl (158)								
2,3,3',4,5,6-Hexachlorobiphenyl (160)								

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Summary Statistics and Analytical Results for Largemouth Bass - Lyman Mill

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PARAMETER	LPX-LB-4008-0000-01-F 6/21/2001	LPX-LB-4008-0000-01-O 6/21/2001	LPX-LB-4008-0000-01-W 6/21/2001	LPX-LB-4009-0000-01-F 6/26/2001	LPX-LB-4009-0000-01-W 6/26/2001	LPX-LB-4010-0000-01-F 6/26/2001	LPX-LB-4010-0000-01-O 6/26/2001	LPX-LB-4010-0000-01-W 6/26/2001
2,3,3',4,5',6-Hexachlorobiphenyl (161)								
2,3,3',4',5,6-Hexachlorobiphenyl (163)								
2,3,3',4',5',6-Hexachlorobiphenyl (164)								
2,3,4,4',5,6-Hexachlorobiphenyl (166)								
2,3',4,4',5,5'-Hexachlorobiphenyl (167)								
2,3',4,4',5',6-Hexachlorobiphenyl (168)								
3,3',4,4',5,5'-Hexachlorobiphenyl (169)								
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)								
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)								
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)								
2,2',3,3',4,5,6-Heptachlorobiphenyl (173)								
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)								
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)								
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)								
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)								
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)								
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)								
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)								
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)								
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)								
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)								
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)								
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)								
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)								
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)								
2,3,3',4',5,5',6-Heptachlorobiphenyl (193)								
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)								
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)								
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)								
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)								
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)								
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)								
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)								
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)								
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)								
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)								
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl								
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl								
Decachlorobiphenyl (209)								

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PARAMETER	LPX-LB-4008-0000-01-F 6/21/2001	LPX-LB-4008-0000-01-O 6/21/2001	LPX-LB-4008-0000-01-W 6/21/2001	LPX-LB-4009-0000-01-F 6/26/2001	LPX-LB-4009-0000-01-W 6/26/2001	LPX-LB-4010-0000-01-F 6/26/2001	LPX-LB-4010-0000-01-O 6/26/2001	LPX-LB-4010-0000-01-W 6/26/2001
PCB Congeners, Total								
Toxicity Equivalency (PCB)								
Other (%)								
Lipid_percent	0.349	1.63		0.73		0.529	2.52	

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

Table A-19
Summary Statistics and Analytical Results for White Sucker - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LP-CC-07 4/10/2001	LP-CC-07EGG 4/10/2001	LP-CC-08 4/10/2001	LPX-DU-062101-A-W 6/21/2001 REPLICATE
Semivolatile Organics (ug/Kg)											
1,1'-Biphenyl	10	10			0.75	1.62	1.16				
2-Methylnaphthalene	10	10			2.88	5.53	4.22				
Acenaphthene	10	10			2.58	5.61	4.06				
Acenaphthylene	10	10			2.14	4.58	2.97				
Anthracene	10	10			2.11	5.41	3.53				
Benzo(a)anthracene	10	10			1.11	11.73	4.47				
Benzo(a)pyrene	9	10	0.68	0.68	0.78	14.69	4.88				
Benzo(b)fluoranthene	10	10			0.27	20.77	6.66				
Benzo(g,h,i)perylene	8	10	0.68	0.72	1.55	11.43	3.76				
Benzo(k)fluoranthene	10	10			0.28	17.39	5.89				
Chrysene	10	10			1.17	23.04	8.15				
Dibenzo(a,h)anthracene	10	10			0.12	2.73	0.96				
Dibenzofuran	10	10			1.86	4.61	3.29				
Fluoranthene	10	10			7.16	49.06	22.02				
Fluorene	10	10			2.74	8.14	5.15				
Indeno(1,2,3-cd)pyrene	10	10			0.18	13.47	4.34				
Naphthalene	10	10			2.15	4.92	3.51				
Phenanthrene	10	10			6.87	29.54	15.37				
Pyrene	10	10			1.62	22.35	10.57				
Total PAH	10	10			38.97	251	114.85				
Pesticides/PCBs (ug/Kg)											
4,4'-DDD	10	10			13.53	66.8	38.66				
4,4'-DDE	10	10			37.11	286.51	130.87				
4,4'-DDT	10	10			0.31	8.47	3.74				
Aldrin	0	10	0.6	0.62			0.31				
alpha-BHC	0	10	0.6	0.62			0.31				
alpha-Chlordane	10	10			14.14	59.56	39.63				
Aroclor, Total	10	10			2803.09	7144.43	4229.49				
Aroclor-1016	0	10	7.54	7.71			3.82				
Aroclor-1221	0	10	7.54	7.71			3.82				
Aroclor-1232	0	10	7.54	7.71			3.82				
Aroclor-1242	0	10	7.54	7.71			3.82				
Aroclor-1248	0	10	7.54	7.71			3.82				
Aroclor-1254	10	10			2771.55	7099.77	4193.59				
Aroclor-1260	0	10	7.54	7.71			3.82				
Aroclor-1268	10	10			21.71	45.66	35.90				
beta-BHC	0	10	0.6	0.62			0.31				
delta-BHC	0	10	0.61	0.62			0.31				

Table A-19
Summary Statistics and Analytical Results for White Sucker - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LP-CC-07 4/10/2001	LP-CC-07EGG 4/10/2001	LP-CC-08 4/10/2001	LPX-DU-062101-A-W 6/21/2001 REPLICATE
Dieldrin	10	10			1.91	9.71	5.56				
Endosulfan I	0	10	0.6	0.62			0.31				
Endosulfan II	0	10	0.6	0.62			0.31				
Endosulfan Sulfate	0	10	0.6	0.62			0.31				
Endrin	0	10	0.6	0.62			0.31				
Endrin Aldehyde	0	10	0.6	0.62			0.31				
Endrin Ketone	0	10	0.6	0.62			0.31				
gamma-BHC	10	10			0.12	0.47	0.21				
gamma-Chlordane	10	10			22.98	40.8	29.21				
Heptachlor	0	10	0.6	0.62			0.31				
Heptachlor Epoxide	10	10			0.81	2	1.36				
Methoxychlor	0	10	0.6	0.62			0.31				
Technical Chlordane	10	10			335.33	2611.85	1365.71				
Toxaphene	0	10	15.08	15.41			7.64				
Inorganics (mg/Kg)											
Aluminum	10	10			1.74	117	48.6				1.42
Antimony	6	10	0.034	0.034	0.00481	0.01	0.0111				0.034 U
Arsenic	1	10	0.0295	0.0605	0.0715	0.0715	0.0276				0.0448 U
Barium	10	10			0.458	2.06	1.10				0.585
Beryllium	5	10	0.004	0.00532	0.00642	0.0137	0.00579				0.004 U
Cadmium	10	10			0.0113	0.0322	0.0184				0.0158 J
Chromium	8	10	0.269	0.269	0.187	0.513	0.270				0.269 U
Cobalt	9	10	0.0745	0.0745	0.051	0.115	0.0775				0.0968 J
Copper	10	10			0.551	1.17	0.840				0.523
Iron	10	10			28	174	75.4				23.4
Lead	10	10			0.0976	1.01	0.428				0.149 J
Manganese	10	10			3.96	10.7	7.49				7.25
Mercury	10	10			0.0648	0.157	0.0984				0.111
Mercury (methyl)	10	10			0.0642	0.139	0.0927				0.0975
Molybdenum	9	10	0.0394	0.0394	0.0252	0.0642	0.0363				0.0319 J
Nickel	10	10			0.0963	0.252	0.154				0.157 J
Selenium	9	10	0.306	0.306	0.199	0.245	0.214				0.205 J
Silver	4	10	0.06	0.06	0.00283	0.0167	0.0222				0.06 U
Thallium	0	10	0.022	0.022			0.0110				0.022 U
Vanadium	8	10	0.179	0.179	0.0726	0.254	0.127				0.0978 J
Zinc	10	10			17.6	24.9	20.6				18.8
Dioxins/Furans (ug/Kg)											
HCX	9	13	0.00042	0.01994	0.02494	0.0814	0.04221	0.0008 U	0.00095 U	0.00042 U	
TCX	0	12	0.00044	0.1			0.02509	0.0008 U	0.00098 U	0.00044 U	

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2,3,7,8-TCDD	13	13			0.21676	1.36549	0.53838	0.42244	0.33975	0.45687	
1,2,3,7,8-PeCDD	5	13	0.0005	0.002	0.00077	0.00169	0.00075	0.00082 UJ	0.002 UJ	0.00082 UJ	
1,2,3,4,7,8-HxCDD	6	13	0.00027	0.00086	0.00023	0.00044	0.00028	0.00071 UJ	0.00086 UJ	0.00037 UJ	
1,2,3,6,7,8-HxCDD	7	13	0.00029	0.00085	0.00037	0.00099	0.00046	0.00077 UJ	0.00085 UJ	0.00038 UJ	
1,2,3,7,8,9-HxCDD	4	13	0.00027	0.00082	0.00021	0.00041	0.00024	0.00053 UJ	0.00082 UJ	0.00036 UJ	
1,2,3,4,6,7,8-HpCDD	11	13	0.0012	0.00136	0.00053	0.00347	0.00158	0.00092 J	0.0012 UJ	0.00053 J	
OCDD	3	13	0.00087	0.00856	0.01184	0.0243	0.00576	0.00144 UJ	0.00126 UJ	0.00087 UJ	
2,3,7,8-TCDF	13	13			0.00168	0.00809	0.00334	0.0026 J	0.00205 J	0.00168 J	
1,2,3,7,8-PeCDF	6	13	0.00034	0.00101	0.00016	0.00038	0.00026	0.00063 UJ	0.00101 UJ	0.00043 UJ	
2,3,4,7,8-PeCDF	7	13	0.00031	0.00146	0.0003	0.00128	0.00050	0.0007 UJ	0.00146 UJ	0.00063 UJ	
1,2,3,4,7,8-HxCDF	1	13	0.0001	0.00158	0.00017	0.00017	0.00023	0.00158 UJ	0.00114 UJ	0.0005 UJ	
1,2,3,6,7,8-HxCDF	1	13	0.00015	0.00159	0.0001	0.0001	0.00023	0.00159 UJ	0.00113 UJ	0.0005 UJ	
2,3,4,6,7,8-HxCDF	5	13	0.00014	0.001	0.00009	0.00021	0.00019	0.00043 UJ	0.001 UJ	0.00044 UJ	
1,2,3,7,8,9-HxCDF	1	13	0.00012	0.00095	0.00012	0.00012	0.00020	0.0008 UJ	0.00095 UJ	0.00042 UJ	
1,2,3,4,6,7,8-HpCDF	3	13	0.00028	0.00104	0.00099	0.00114	0.00044	0.00085 UJ	0.00104 UJ	0.00045 UJ	
1,2,3,4,7,8,9-HpCDF	0	13	0.00017	0.00099			0.00023	0.00089 UJ	0.00099 UJ	0.0005 UJ	
OCDF	0	13	0.0002	0.0022			0.00051	0.00073 UJ	0.00212 UJ	0.00097 UJ	
Total TCDD	13	13			0.21676	1.36549	0.53838	0.42244 J	0.33975 J	0.45687 J	
Total PeCDD	6	13	0.0005	0.00459	0.00077	0.00428	0.00124	0.00166 UJ	0.00459 UJ	0.00189 UJ	
Total HxCDD	3	13	0.0001	0.002	0.00048	0.00166	0.00063	0.001 UJ	0.002 UJ	0.00088 UJ	
Total HpCDD	9	13	0.00079	0.00319	0.00053	0.00636	0.00236	0.00092 J	0.00319 UJ	0.00053 J	
Total TCDF	13	13			0.00086	0.00876	0.00252	0.0026 J	0.00205 J	0.00182 J	
Total PeCDF	10	13	0.00111	0.0026	0.0003	0.00303	0.00125	0.00128 UJ	0.0026 UJ	0.00111 UJ	
Total HxCDF	4	13	0.00028	0.00672	0.00033	0.00183	0.00088	0.00111 J	0.00672 UJ	0.00033 J	
Total HpCDF	2	13	0.00044	0.01523	0.00012	0.00199	0.00146	0.00012 J	0.01523 UJ	0.00703 UJ	
Toxicity Equivalency (Dioxins, Furans, HCX)	13	13			0.219	1.37	0.540	0.423	0.34	0.457	
PCB Congeners (ug/Kg)											
2-Monochlorobiphenyl (1)	3	3			0.07312	0.10098	0.08971				
4-Chlorobiphenyl (3)	1	3	0.01517	0.01588	0.06119	0.06119	0.02557				
2,2'-Dichlorobiphenyl (4)	3	3			0.52967	0.65812	0.58357				
2,3-Dichlorobiphenyl (5)	3	3			0.02128	0.02453	0.02262				
2,3'-Dichlorobiphenyl (6)	3	3			0.28407	0.32179	0.30745				
2,4-Dichlorobiphenyl (7)	3	3			0.04439	0.04623	0.04501				
2,4'-Dichlorobiphenyl (8)	3	3			0.95942	1.16279	1.06372				
2,5-Dichlorobiphenyl (9)	3	3			0.10089	0.11506	0.10660				
2,6-Dichlorobiphenyl (10)	2	3	0.00995	0.00995	0.04809	0.05547	0.03618				
3,4-Dichlorobiphenyl (12)	1	3	0.01991	0.01996	0.0136	0.0136	0.01118				
2,2',3'-Trichlorobiphenyl (16)	3	3			1.18371	1.77308	1.53893				
2,2',4-Trichlorobiphenyl (17)	3	3			1.76036	2.3594	2.09753				

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2,2',5-Trichlorobiphenyl (18)	3	3			2.37212	3.31766	2.97069				
2,2',6-Trichlorobiphenyl (19)	3	3			0.43454	0.50026	0.46599				
2,3,3'-Trichlorobiphenyl (20)	3	3			12.1426	20.93972	16.56460				
2,3,4'-Trichlorobiphenyl (22)	3	3			2.0035	2.64631	2.32705				
2,3,6-Trichlorobiphenyl (24)	3	3			0.36704	0.53652	0.46106				
2,3',4-Trichlorobiphenyl (25)	3	3			0.13643	0.21729	0.17648				
2,3',5-Trichlorobiphenyl (26)	3	3			0.69486	1.08452	0.93708				
2,4',5-Trichlorobiphenyl (31)	3	3			3.99927	4.50948	4.33348				
2,4',6-Trichlorobiphenyl (32)	3	3			1.08301	1.93656	1.56414				
2,2',3,3'-Tetrachlorobiphenyl (40)	3	3			6.34008	12.36714	9.35291				
2,2',3,4'-Tetrachlorobiphenyl (42)	3	3			5.70407	8.18426	6.64659				
2,2',3,5-Tetrachlorobiphenyl (43)	3	3			12.96165	18.68031	16.66496				
2,2',3,5'-Tetrachlorobiphenyl (44)	3	3			7.06521	31.08492	21.47833				
2,2',3,6-Tetrachlorobiphenyl (45)	3	3			1.94852	2.70416	2.31636				
2,2',3,6'-Tetrachlorobiphenyl (46)	3	3			0.65629	0.86487	0.74436				
2,2',4,5-Tetrachlorobiphenyl (48)	3	3			2.11028	3.04497	2.56907				
2,2',4,5'-Tetrachlorobiphenyl (49)	3	3			14.81116	23.84478	20.11997				
2,2',4,6-Tetrachlorobiphenyl (50)	3	3			1.58856	2.86022	2.25846				
2,3,3',4'-Tetrachlorobiphenyl (56)	3	3			4.9995	6.97816	5.79207				
2,3,3',6-Tetrachlorobiphenyl (59)	3	3			2.14002	15.04476	6.52630				
2,3,4,4'-Tetrachlorobiphenyl (60)	3	3			3.1876	4.23045	3.53604				
2,3,4,5-Tetrachlorobiphenyl (61)	3	3			32.14628	44.10044	38.03096				
2,3,4',5-Tetrachlorobiphenyl (63)	3	3			0.8928	1.22387	1.09310				
2,3,4',6-Tetrachlorobiphenyl (64)	3	3			10.04053	13.13471	11.22687				
2,3',4,4'-Tetrachlorobiphenyl (66)	3	3			27.56763	52.90614	41.11566				
3,3',4,4'-Tetrachlorobiphenyl (77)	6	6			0.59637	8.31321	2.03941	1.03578	0.82331	8.31321	
3,4,4',5-Tetrachlorobiphenyl (81)	4	6	0.09953	0.09978	0.04281	1.80606	0.59973	0.07999 J	0.04281 J	1.56989	
2,2',3,3',4-Pentachlorobiphenyl (82)	3	3			6.7802	12.03038	9.07881				
2,2',3,3',5-Pentachlorobiphenyl (83)	3	3			51.07994	62.33564	58.39309				
2,2',3,3',6-Pentachlorobiphenyl (84)	3	3			12.07974	18.11699	14.14409				
2,2',3,4,4'-Pentachlorobiphenyl (85)	3	3			6.87232	25.92432	17.56256				
2,2',3,4,5-Pentachlorobiphenyl (86)	3	3			55.97736	86.31006	68.86990				
2,2',3,4,6-Pentachlorobiphenyl (88)	3	3			9.1997	14.95588	11.72281				
2,2',3,4,6'-Pentachlorobiphenyl (89)	3	3			0.45716	0.71252	0.54969				
2,2',3,4',5-Pentachlorobiphenyl (90)	3	3			70.20954	100.02849	85.77761				
2,2',3,5,5'-Pentachlorobiphenyl (92)	3	3			10.01659	13.12733	11.68759				
2,2',3,5,6-Pentachlorobiphenyl (93)	3	3			36.3734	58.54335	45.95168				
2,3,3',4,4'-Pentachlorobiphenyl (105)	6	6			15.78211	121.5207	40.75912	32.09775	24.46545	121.5207 J	
2,3,3',4,5-Pentachlorobiphenyl (106)	3	3			10.98138	37.12125	20.28156				

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2,3,3',4',5'-Pentachlorobiphenyl (108)	3	3			2.21902	3.53374	2.71537				
2,3,3',4',6-Pentachlorobiphenyl (110)	3	3			54.42027	144.53526	99.01306				
2,3,4,4',5-Pentachlorobiphenyl (114)	6	6			1.32961	6.22118	2.55317	2.23524	1.76418	6.22118	
2,3',4,4',5-Pentachlorobiphenyl (118)	6	6			74.09379	513.1004	183.05870	158.7888 J	104.9772 J	513.1004 J	
2,3',4,4',5'-Pentachlorobiphenyl (123)	3	3			1.27023	9.78857	4.37862	2.07705	1.27023	9.78857	
3,3',4,4',5-Pentachlorobiphenyl (126)	6	6			0.09952	8.65899	1.88191	1.07147	0.97163	8.65899	
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	3	3			16.11036	38.1667	27.27977				
2,2',3,3',4,5-Hexachlorobiphenyl (129)	3	3			96.47376	212.03484	164.18364				
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	3	3			5.57121	13.02348	9.41010				
2,2',3,3',4,6-Hexachlorobiphenyl (131)	3	3			1.05748	2.09394	1.72134				
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	3	3			23.07429	54.41169	37.76032				
2,2',3,3',5,6-Hexachlorobiphenyl (134)	3	3			2.37958	7.10846	4.45218				
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	3	3			10.05705	19.09956	14.07747				
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	3	3			3.45942	8.70498	6.10931				
2,2',3,4,4',5-Hexachlorobiphenyl (137)	3	3			9.77952	20.44934	15.99045				
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	3	3			7.91512	16.47617	12.75060				
2,2',3,4,5',6-Hexachlorobiphenyl (144)	3	3			1.52675	3.31056	2.64590				
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	3	3			9.57914	15.95748	12.90767				
2,2',3,4',5,6-Hexachlorobiphenyl (147)	3	3			44.3865	101.43014	75.91913				
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	3	3			62.651	100.6528	82.55883				
2,3,3',4,4',5-Hexachlorobiphenyl (156)	6	6			5.81263	40.52463	14.97255	9.45425 J	5.81263 J	40.52463 J	
2,3,3',4,4',5'-Hexachlorobiphenyl (157)	3	3			5.81263	40.52463	18.59717	9.45425 J	5.81263 J	40.52463 J	
2,3,3',4,4',6-Hexachlorobiphenyl (158)	3	3			8.73738	16.37627	13.66986				
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	6	6			3.25965	32.88351	9.97243	7.83341	4.33286	32.88351 J	
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	2	6	0.09953	0.29983	0.13813	0.16857	0.11267	0.23953 U	0.16857 J	0.29983 U	
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	3	3			9.53936	27.40167	18.67875				
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	3	3			2.74958	7.76388	5.48201				
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	3	3			1.49735	3.00058	2.40357				
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	3	3			3.85943	12.58246	7.99166				
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	3	3			0.21956	0.4928	0.39184				
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	3	3			0.48481	1.78914	1.22949				
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	3	3			3.78289	11.79837	7.68811				
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	3	3			1.14405	2.88723	2.23997				
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	3	3			14.87992	27.74674	22.73489				
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	1	3	0.19906	0.19956	0.09877	0.09877	0.09936				
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	3	3			3.4802	6.56204	5.48787				
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	3	3			0.01309	0.03495	0.02625				
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	3	3			0.46831	1.11325	0.86141				
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	3	3			9.5184	17.83585	14.62392				

US EPA ARCHIVE DOCUMENT

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2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	6	6			0.25369	6.69962	1.47916	0.61317	0.34819 J	6.69962	
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	3	3			1.92367	3.91034	3.05658				
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	3	3			0.30994	0.61708	0.50451				
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	3	3			2.23061	4.48987	3.47600				
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	3	3			0.66437	1.93784	1.35520				
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	3	3			1.38958	2.71753	2.09199				
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	3	3			0.09168	0.147	0.12654				
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	3	3			8.31008	16.57656	13.18785				
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	3	3			0.18685	0.67054	0.42720				
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	3	3			0.4897	1.01681	0.82911				
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	3	3			4.16882	5.90437	5.22599				
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	3	3			0.10931	0.22639	0.17657				
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	3	3			9.05943	15.84419	13.52015				
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	3	3			0.82561	1.32167	1.14143				
Decachlorobiphenyl (209)	3	3			4.77757	9.67813	7.90898				
PCB Congeners, Total	3	3			1023.47631	1791.22665	1444.49744				
Toxicity Equivalency (PCB)	6	6			0.0237	0.976	0.2252	0.137	0.119	0.976	
Other (%)											
Lipid_percent	13	13			3.5	12.1	7.15	4.75	10.9	3.5	

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Samples ending with:
W = whole body

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Semivolatile Organics (ug/Kg)								
1,1'-Biphenyl	0.92	1.12	0.75	1.05	1.62	1.3	1.49	1.27
2-Methylnaphthalene	2.98	3.44	2.88	3.6	5.41	5.14	5.53	5.49
Acenaphthene	3.11	5.34	2.58	3.25	5.61	4.3	4.56	4.01
Acenaphthylene	2.14	2.68	2.32	2.34	4.58	3.02	4.31	2.7
Anthracene	2.13	3.21	2.11	2.43	5.34	3.69	5.41	3.65
Benzo(a)anthracene	5.32	4.58	1.11	1.97	1.11	4.56	4.62	6.89
Benzo(a)pyrene	6.65	5.05	0.78	1.77	0.68 U	4.33	4.57	8.03
Benzo(b)fluoranthene	9.35	6.79	0.84	2.17	0.27 J	5.97	6.15	11.2
Benzo(g,h,i)perylene	6.43	4.35	0.72 U	1.55	0.68 U	3.05	2.79	5.66
Benzo(k)fluoranthene	8.39	6.05	0.81	1.92	0.28 J	5.44	5.59	10.23
Chrysene	9.97	8.44	1.41	3.06	1.17	7.8	8.4	13.37
Dibenzo(a,h)anthracene	1.51	1.06	0.3 J	0.46 J	0.12 J	0.83	0.73	1.41
Dibenzofuran	2.4	4.61	1.86	2.43	4.57	3.52	3.84	3.33
Fluoranthene	22.24	24.06	7.16	13.06	10.21	23.19	25.19	31.7
Fluorene	4.39	8.14	2.74	3.26	5.66	5.21	6.03	5.5
Indeno(1,2,3-cd)pyrene	7.27	4.81	0.68	1.52	0.18 J	3.57	3.27	6.74
Naphthalene	2.73	2.84	2.15	3.48	4.92	4.41	4.44	3.85
Phenanthrene	14.74	20.26	6.87	10.64	11.94	16.26	15.58	18.8
Pyrene	12.22	12.3	1.62	6.06	3.57	10.1	11.49	18.45
Total PAH	124.9	129.15	38.97	66.02	66.55	115.69	123.99	162.26
Pesticides/PCBs (ug/Kg)								
4,4'-DDD	51.23 J	43.98 J	36.78 J	48.68 J	66.8 J	19.84 J	54.29 J	37.86 J
4,4'-DDE	121.97 J	139.22 J	100.94 J	174.73 J	286.51 J	96.65 J	158.1 J	137.5 J
4,4'-DDT	2.48 J	5.73 J	6.69 J	4.88 J	8.47 J	2.4 J	3.57 J	1.39 J
Aldrin	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.61 UJ	0.62 UJ
alpha-BHC	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.62 UJ
alpha-Chlordane	40.02 J	48.9 J	51.58 J	40.29 J	59.56 J	37.86 J	42.67 J	30.54 J
Arocior, Total	2803.09 J	3650.37 J	3703.16 J	4730.56 J	7144.43 J	3692.28 J	6070.25 J	4461.91 J
Arocior-1016	7.6 UJ	7.57 UJ	7.68 UJ	7.61 UJ	7.69 UJ	7.61 UJ	7.67 UJ	7.68 UJ
Arocior-1221	7.6 UJ	7.57 UJ	7.68 UJ	7.61 UJ	7.69 UJ	7.61 UJ	7.67 UJ	7.68 UJ
Arocior-1232	7.6 UJ	7.57 UJ	7.68 UJ	7.61 UJ	7.69 UJ	7.61 UJ	7.67 UJ	7.68 UJ
Arocior-1242	7.6 UJ	7.57 UJ	7.68 UJ	7.61 UJ	7.69 UJ	7.61 UJ	7.67 UJ	7.68 UJ
Arocior-1248	7.6 UJ	7.57 UJ	7.68 UJ	7.61 UJ	7.69 UJ	7.61 UJ	7.67 UJ	7.68 UJ
Arocior-1254	2771.55 J	3604.71 J	3661.64 J	4688.09 J	7099.77 J	3663.02 J	6024.9 J	4427.1 J
Arocior-1260	7.6 UJ	7.57 UJ	7.68 UJ	7.61 UJ	7.69 UJ	7.61 UJ	7.67 UJ	7.68 UJ
Arocior-1268	31.54 J	45.66 J	41.52 J	42.48 J	44.66 J	29.26 J	45.35 J	34.8 J
beta-BHC	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.62 UJ
delta-BHC	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.62 UJ

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Dieldrin	1.91 J	3.67 J	2.96 J	3.9 J	8.21 J	9.71 J	7.06 J	3.91 J
Endosulfan I	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.62 UJ
Endosulfan II	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.61 UJ	0.62 UJ
Endosulfan Sulfate	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.61 UJ	0.62 UJ
Endrin	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.61 UJ	0.62 UJ
Endrin Aldehyde	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.62 UJ
Endrin Ketone	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.61 UJ	0.62 UJ
gamma-BHC	0.14 J	0.15 J	0.14 J	0.19 J	0.47 J	0.23 J	0.27 J	0.21 J
gamma-Chlordane	32.05 J	33 J	24.16 J	35.54 J	40.8 J	22.98 J	33.95 J	23.38 J
Heptachlor	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.61 UJ	0.62 UJ
Heptachlor Epoxide	0.87 J	2 J	1.16 J	1.83 J	1.45 J	1.39 J	1.16 J	1.21 J
Methoxychlor	0.61 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.61 UJ	0.62 UJ	0.62 UJ
Technical Chlordane	870.47 J	1040.7 J	1115.97 J	1347.91 J	2611.85 J	1897.63 J	2409.58 J	1611.63 J
Toxaphene	15.19 UJ	15.15 UJ	15.36 UJ	15.21 UJ	15.39 UJ	15.22 UJ	15.34 UJ	15.36 UJ
Inorganics (mg/Kg)								
Aluminum	76.5	39.9	8	15.7	1.74	52.3	71.8	77.6
Antimony	0.00481 J	0.00743 J	0.034 U	0.034 U	0.00905 J	0.034 U	0.00562 J	0.00582 J
Arsenic	0.0373 U	0.0598 U	0.0295 U	0.034 U	0.0605 U	0.0544 U	0.0516 U	0.0486 U
Barium	1.38	1.13	0.593	0.783	0.458	1.07	1.47	1.38
Beryllium	0.008	0.00642	0.004 U	0.004 U	0.004 U	0.004 U	0.0104	0.00873
Cadmium	0.018 J	0.0237 J	0.0192 J	0.015 J	0.0138 J	0.0178 J	0.0194 J	0.0131 J
Chromium	0.3	0.189 J	0.269 U	0.269 U	0.344	0.187 J	0.3	0.353
Cobalt	0.0828 J	0.0863 J	0.051 J	0.0745 U	0.0888 J	0.0742 J	0.0964 J	0.0806 J
Copper	1.02	0.786	0.728	0.783	0.551	0.894	0.872	0.961
Iron	120	61.2	29	44.8	28	72	100	80.9
Lead	0.61 J	0.434 J	0.0976 J	0.17 J	0.123 J	0.407 J	0.589 J	0.632 J
Manganese	6.55	9.72	3.96	5.82	6.11	5.68	10.2	10.6
Mercury	0.108	0.157	0.0958	0.121	0.109	0.0842	0.0648	0.077
Mercury (methyl)	0.111	0.139	0.0956	0.107	0.101	0.079	0.0642	0.0691
Molybdenum	0.0358 J	0.0459 J	0.0394 U	0.0349 J	0.0316 J	0.0365 J	0.0396 J	0.0292 J
Nickel	0.179 J	0.138 J	0.0963 J	0.115 J	0.147 J	0.131 J	0.187 J	0.177 J
Selenium	0.22 J	0.225 J	0.306 U	0.219 J	0.199 J	0.234 J	0.223 J	0.216 J
Silver	0.00931 J	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.00283 J	0.0167 J
Thallium	0.022 U	0.022 U	0.022 U	0.022 U	0.022 U	0.022 U	0.022 U	0.022 U
Vanadium	0.167 J	0.13 J	0.0756 J	0.179 U	0.179 U	0.124 J	0.125 J	0.138 J
Zinc	20.9	24.9	17.6	19.7	19.4	18.5	20.4	22.7
Dioxins/Furans (ug/Kg)								
HCX	0.02494 J	0.0263 J	0.03864 J	0.07769 J	0.05434 J	0.07681 J	0.07688 J	0.08061 J
TCX	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.1 UJ	0.1 UJ

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2,3,7,8-TCDD	0.21676 J	0.25338 J	0.41592 J	0.667 J	1.36549 J	0.72286 J	0.73092 J	0.50732 J
1,2,3,7,8-PeCDD	0.00165 J	0.00132 J	0.0005 UJ	0.00077 J	0.00169 J	0.00093 J	0.00066 UJ	0.00064 UJ
1,2,3,4,7,8-HxCDD	0.00028 UJ	0.00023 J	0.00044 UJ	0.00028 J	0.00038 J	0.00044 J	0.00029 J	0.00025 J
1,2,3,6,7,8-HxCDD	0.00029 UJ	0.00036 UJ	0.00037 J	0.00069 J	0.00099 J	0.00075 J	0.00068 J	0.00048 UJ
1,2,3,7,8,9-HxCDD	0.00027 UJ	0.00033 UJ	0.00042 UJ	0.00021 J	0.00028 J	0.00041 J	0.00023 J	0.00043 UJ
1,2,3,4,6,7,8-HpCDD	0.00138 J	0.00143 J	0.00079 J	0.00124 J	0.00141 J	0.00281 J	0.00205 J	0.00322 J
OCDD	0.00758 UJ	0.00658 UJ	0.00238 UJ	0.0025 UJ	0.00181 UJ	0.01184 J	0.00856 UJ	0.02043 J
2,3,7,8-TCDF	0.00239 J#	0.00223 J#	0.0055 J#	0.00232 J#	0.00809 J#	0.00343 J#	0.00366 J#	0.00369 J#
1,2,3,7,8-PeCDF	0.00034 UJ	0.00016 J	0.00037 UJ	0.0002 J	0.00038 J	0.00026 J	0.00062 UJ	0.00023 J
2,3,4,7,8-PeCDF	0.00031 UJ	0.0003 J	0.00041 J	0.00065 J	0.00128 J	0.00068 J	0.0006 J	0.00042 UJ
1,2,3,4,7,8-HxCDF	0.00015 UJ	0.0001 UJ	0.00017 UJ	0.00024 UJ	0.00018 UJ	0.00032 UJ	0.00035 UJ	0.00021 UJ
1,2,3,6,7,8-HxCDF	0.00015 UJ	0.00026 UJ	0.00041 UJ	0.00015 UJ	0.00019 UJ	0.00026 UJ	0.00031 UJ	0.00019 UJ
2,3,4,6,7,8-HxCDF	0.00016 UJ	0.00026 UJ	0.00012 J	0.00009 J	0.00017 J	0.00021 J	0.00032 UJ	0.00014 J
1,2,3,7,8,9-HxCDF	0.00017 UJ	0.0003 UJ	0.00012 J	0.00036 UJ	0.00022 UJ	0.00012 UJ	0.00036 UJ	0.00042 UJ
1,2,3,4,6,7,8-HpCDF	0.00033 UJ	0.00036 UJ	0.00028 UJ	0.00029 UJ	0.00032 UJ	0.00099 J	0.00064 UJ	0.00108 J
1,2,3,4,7,8,9-HpCDF	0.00027 UJ	0.00025 UJ	0.0002 UJ	0.00044 UJ	0.0003 UJ	0.00023 UJ	0.00031 UJ	0.00049 UJ
OCDF	0.0007 UJ	0.0006 UJ	0.00043 UJ	0.0002 UJ	0.00033 UJ	0.00162 UJ	0.00081 UJ	0.00215 UJ
Total TCDD	0.21676 J	0.25338 J	0.41592 J	0.667 J	1.36549 J	0.72286 J	0.73092 J	0.50732 J
Total PeCDD	0.00165 J	0.00144 J	0.0005 UJ	0.00077 J	0.00177 J	0.00093 J	0.00066 UJ	0.00064 UJ
Total HxCDD	0.0001 UJ	0.00049 UJ	0.00071 UJ	0.00118 UJ	0.00166 J	0.0016 J	0.00178 UJ	0.00025 UJ
Total HpCDD	0.00237 J	0.00223 J	0.00079 UJ	0.00124 UJ	0.00141 J	0.00424 J	0.00326 J	0.00582 J
Total TCDF	0.00086 J	0.00167 J	0.00119 J	0.0024 J	0.00876 J	0.00341 J	0.00288 J	0.00207 J
Total PeCDF	0.0003 J	0.00132 J	0.00041 J	0.0019 J	0.00303 J	0.00201 J	0.00163 J	0.00149 J
Total HxCDF	0.00028 UJ	0.00032 UJ	0.00082 UJ	0.00102 UJ	0.00128 UJ	0.00183 J	0.0014 UJ	0.00145 UJ
Total HpCDF	0.00104 UJ	0.00077 UJ	0.00138 UJ	0.00044 UJ	0.0005 UJ	0.00199 J	0.00146 UJ	0.00267 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.219	0.255	0.417	0.668	1.37	0.725	0.732	0.508
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)							0.10098 J	0.07312 J
4-Chlorobiphenyl (3)							0.01517 UJ	0.01588 UJ
2,2'-Dichlorobiphenyl (4)							0.65812 J	0.56291 J
2,3-Dichlorobiphenyl (5)							0.02128 J	0.02453 J
2,3'-Dichlorobiphenyl (6)							0.3165 J	0.28407 J
2,4-Dichlorobiphenyl (7)							0.0444 J	0.04623 J
2,4'-Dichlorobiphenyl (8)							1.06894 J	0.95942 J
2,5-Dichlorobiphenyl (9)							0.10089 J	0.11506 J
2,6-Dichlorobiphenyl (10)							0.04809 J	0.00995 UJ
3,4-Dichlorobiphenyl (12)							0.0136 J	0.01991 UJ
2,2',3'-Trichlorobiphenyl (16)							1.77308 J	1.66 J
2,2',4-Trichlorobiphenyl (17)							2.3594 J	2.17283 J

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2,2',5-Trichlorobiphenyl (18)							3.31766 J	3.2223 J
2,2',6-Trichlorobiphenyl (19)							0.50026 J	0.46317 J
2,3,3'-Trichlorobiphenyl (20)							20.93972 J	16.61148 J
2,3,4'-Trichlorobiphenyl (22)							2.64631 J	2.0035 J
2,3,6-Trichlorobiphenyl (24)							0.53652 J	0.47962 J
2,3',4-Trichlorobiphenyl (25)							0.21729 J	0.17573 J
2,3',5-Trichlorobiphenyl (26)							1.08452 J	1.03186 J
2,4',5-Trichlorobiphenyl (31)							4.49168 J	4.50948 J
2,4',6-Trichlorobiphenyl (32)							1.93656 J	1.67284 J
2,2',3,3'-Tetrachlorobiphenyl (40)							12.36714 J	9.35151 J
2,2',3,4'-Tetrachlorobiphenyl (42)							8.18426 J	6.05143 J
2,2',3,5-Tetrachlorobiphenyl (43)							18.35292 J	18.68031 J
2,2',3,5'-Tetrachlorobiphenyl (44)							31.08492 J	26.28486 J
2,2',3,6-Tetrachlorobiphenyl (45)							2.70416 J	2.2984 J
2,2',3,6'-Tetrachlorobiphenyl (46)							0.86487 J	0.71192 J
2,2',4,5-Tetrachlorobiphenyl (48)							3.04497 J	2.55197 J
2,2',4,5'-Tetrachlorobiphenyl (49)							23.84478 J	21.70398 J
2,2',4,6-Tetrachlorobiphenyl (50)							2.86022 J	2.3266 J
2,3,3',4'-Tetrachlorobiphenyl (56)							6.97816 J	4.9995 J
2,3,3',6-Tetrachlorobiphenyl (59)							2.39412 J	2.14002 J
2,3,4,4'-Tetrachlorobiphenyl (60)							4.23045 J	3.1876 J
2,3,4,5-Tetrachlorobiphenyl (61)							44.10044 J	37.84616 J
2,3,4',5-Tetrachlorobiphenyl (63)							1.22387 J	1.16262 J
2,3,4',6-Tetrachlorobiphenyl (64)							13.13471 J	10.50538 J
2,3',4,4'-Tetrachlorobiphenyl (66)							52.90614 J	42.8732 J
3,3',4,4'-Tetrachlorobiphenyl (77)							0.81957 J	0.59637 J
3,4,4',5-Tetrachlorobiphenyl (81)							1.80606 J	0.09953 UJ
2,2',3,3',4-Pentachlorobiphenyl (82)							12.03038 J	6.7802 J
2,2',3,3',5-Pentachlorobiphenyl (83)							62.33564 J	61.76368 J
2,2',3,3',6-Pentachlorobiphenyl (84)							18.11699 J	12.07974 J
2,2',3,4,4'-Pentachlorobiphenyl (85)							25.92432 J	19.89105 J
2,2',3,4,5-Pentachlorobiphenyl (86)							86.31006 J	64.32228 J
2,2',3,4,6-Pentachlorobiphenyl (88)							14.95588 J	11.01286 J
2,2',3,4,6'-Pentachlorobiphenyl (89)							0.71252 J	0.47939 J
2,2',3,4',5-Pentachlorobiphenyl (90)							100.02849 J	87.0948 J
2,2',3,5,5'-Pentachlorobiphenyl (92)							13.12733 J	11.91885 J
2,2',3,5,6-Pentachlorobiphenyl (93)							58.54335 J	42.9383 J
2,3,3',4,4'-Pentachlorobiphenyl (105)							27.14543 J	23.5233 J
2,3,3',4,5-Pentachlorobiphenyl (106)							12.74205 J	10.98138 J

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2,3,3',4',5'-Pentachlorobiphenyl (108)							3.53374 J	2.21902 J
2,3,3',4',6-Pentachlorobiphenyl (110)							144.53526 J	98.08364 J
2,3,4,4',5-Pentachlorobiphenyl (114)							2.27399 J	1.32961 J
2,3',4,4',5-Pentachlorobiphenyl (118)							126.82654 J	120.56547 J
2,3',4,4',5'-Pentachlorobiphenyl (123)								
3,3',4,4',5-Pentachlorobiphenyl (126)							0.25238 J	0.23747 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)							38.1667	27.56226 J
2,2',3,3',4,5-Hexachlorobiphenyl (129)							212.03484	184.04232 J
2,2',3,3',4,5'-Hexachlorobiphenyl (130)							13.02348 J	9.63561 J
2,2',3,3',4,6-Hexachlorobiphenyl (131)							2.0126 J	2.09394 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)							54.41169 J	35.79497 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)							7.10846	3.8685 J
2,2',3,3',5,6'-Hexachlorobiphenyl (135)							13.0758	19.09956 J
2,2',3,3',6,6'-Hexachlorobiphenyl (136)							8.70498 J	6.16353 J
2,2',3,4,4',5-Hexachlorobiphenyl (137)							20.44934	17.7425 J
2,2',3,4,5,5'-Hexachlorobiphenyl (141)							16.47617 J	13.86051 J
2,2',3,4,5',6-Hexachlorobiphenyl (144)							3.10038 J	3.31056 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)							13.1864	15.95748 J
2,2',3,4',5,6-Hexachlorobiphenyl (147)							101.43014	81.94076 J
2,2',4,4',5,5'-Hexachlorobiphenyl (153)							84.3727	100.6528 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)							13.48578	12.79442 J
2,3,3',4,4',5'-Hexachlorobiphenyl (157)								
2,3,3',4,4',6-Hexachlorobiphenyl (158)							16.37627 J	15.89593 J
2,3',4,4',5,5'-Hexachlorobiphenyl (167)							6.10057 J	5.42459 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)							0.13813 J	0.09953 UJ
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)							27.40167 J	19.09521 J
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)							7.76388	5.93256 J
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)							3.00058 J	2.71278 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)							12.58246 J	7.5331 J
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)							0.4928 J	0.46315 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)							1.78914 J	1.41451 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)							11.79837 J	7.48308 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)							2.88723 J	2.68864 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)							27.74674	25.57802 J
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)							0.09877 J	0.19906 UJ
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)							6.42137 J	6.56204 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)							0.03072 J	0.03495 J
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)							1.11325 J	1.00268 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)							16.51752 J	17.83585 J

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PARAMETER	LPX-WS-4001-0000-01-W 6/21/2001	LPX-WS-4002-0000-01-W 6/21/2001	LPX-WS-4003-0000-01-W 6/21/2001	LPX-WS-4004-0000-01-W 6/21/2001	LPX-WS-4005-0000-01-W 6/21/2001	LPX-WS-4006-0000-01-W 6/21/2001	LPX-WS-4007-0000-01-W 6/21/2001	LPX-WS-4008-0000-01-W 6/21/2001
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)							0.48418 J	0.47608 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)							3.91034 J	3.33572 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)							0.61708 J	0.58652 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)							4.48987 J	3.70752 J
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)							1.93784 J	1.46338 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)							2.71753 J	2.16887 J
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)							0.14095 J	0.147 J
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)							16.57656	14.67692 J
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)							0.67054 J	0.4242 J
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)							0.98082 J	1.01681 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)							5.90437 J	5.60478 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)							0.22639 J	0.194 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl							15.84419 J	15.65883 J
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl							1.27702 J	1.32167 J
Decachlorobiphenyl (209)							9.67813 J	9.27123 J
PCB Congeners, Total							1791.22665	1518.78936 J
Toxicity Equivalency (PCB)							0.0503	0.0454
Other (%)								
Lipid_percent	5.71	5.57	5.36	7.09	12.1	7.63	10	7.79

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Samples ending with:
W - whole body

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Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-WS-4009-0000-01-W 6/21/2001	LPX-WS-4010-0000-01-W 6/21/2001
Semivolatile Organics (ug/Kg)		
1,1'-Biphenyl	1.31	0.81
2-Methylnaphthalene	4.68	3
Acenaphthene	5.23	2.62
Acenaphthylene	3.37	2.21
Anthracene	4.69	2.65
Benzo(a)anthracene	11.73	2.85
Benzo(a)pyrene	14.69	2.55
Benzo(b)fluoranthene	20.77	3.12
Benzo(g,h,i)perylene	11.43	1.67
Benzo(k)fluoranthene	17.39	2.81
Chrysene	23.04	4.83
Dibenzo(a,h)anthracene	2.73	0.46 J
Dibenzofuran	4.38	1.98
Fluoranthene	49.06	14.29
Fluorene	7.27	3.31
Indeno(1,2,3-cd)pyrene	13.47	1.68
Naphthalene	3.66	2.38
Phenanthrene	29.54	9.04
Pyrene	22.35	7.54
Total PAH	251	70
Pesticides/PCBs (ug/Kg)		
4,4'-DDD	13.6 J	13.53 J
4,4'-DDE	37.11 J	55.96 J
4,4'-DDT	0.31 J	1.51 J
Aldrin	0.62 UJ	0.6 UJ
alpha-BHC	0.62 UJ	0.6 UJ
alpha-Chlordane	30.74 J	14.14 J
Aroclor, Total	3055.9 J	2982.92 J
Aroclor-1016	7.71 UJ	7.54 UJ
Aroclor-1221	7.71 UJ	7.54 UJ
Aroclor-1232	7.71 UJ	7.54 UJ
Aroclor-1242	7.71 UJ	7.54 UJ
Aroclor-1248	7.71 UJ	7.54 UJ
Aroclor-1254	3033.88 J	2961.22 J
Aroclor-1260	7.71 UJ	7.54 UJ
Aroclor-1268	22.02 J	21.71 J
beta-BHC	0.62 UJ	0.6 UJ
delta-BHC	0.62 UJ	0.61 UJ

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PARAMETER	LPX-WS-4009-0000-01-W 6/21/2001	LPX-WS-4010-0000-01-W 6/21/2001
Dieldrin	7.99 J	6.27 J
Endosulfan I	0.62 UJ	0.6 UJ
Endosulfan II	0.62 UJ	0.6 UJ
Endosulfan Sulfate	0.62 UJ	0.6 UJ
Endrin	0.62 UJ	0.6 UJ
Endrin Aldehyde	0.62 UJ	0.6 UJ
Endrin Ketone	0.62 UJ	0.6 UJ
gamma-BHC	0.12 J	0.14 J
gamma-Chlordane	23.27 J	23.01 J
Heptachlor	0.62 UJ	0.6 UJ
Heptachlor Epoxide	1.71 J	0.81 J
Methoxychlor	0.62 UJ	0.6 UJ
Technical Chlordane	415.87 J	335.33 J
Toxaphene	15.41 UJ	15.08 UJ
Inorganics (mg/Kg)		
Aluminum	117	25.4
Antimony	0.01 J	0.034 U
Arsenic	0.0715	0.0326 U
Barium	2.06	0.704
Beryllium	0.0137	0.00532 U
Cadmium	0.0322 J	0.0113 J
Chromium	0.513	0.249 J
Cobalt	0.115 J	0.0625 J
Copper	1.17	0.63
Iron	174	43.8
Lead	1.01 J	0.21 J
Manganese	10.7	5.51
Mercury	0.0958	0.071
Mercury (methyl)	0.0826	0.0786
Molybdenum	0.0642 J	0.0252 J
Nickel	0.252 J	0.118 J
Selenium	0.245 J	0.206 J
Silver	0.0131 J	0.06 U
Thallium	0.022 U	0.022 U
Vanadium	0.254	0.0726 J
Zinc	23.8	18.2
Dioxins/Furans (ug/Kg)		
HCX	0.0814 J	0.01994 UJ
TCX	0.1 UJ	R

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PARAMETER	LPX-WS-4009-0000-01-W 6/21/2001	LPX-WS-4010-0000-01-W 6/21/2001
2,3,7,8-TCDD	0.39695 J	0.50332 J
1,2,3,7,8-PeCDD	0.00062 UJ	0.00063 UJ
1,2,3,4,7,8-HxCDD	0.00064 UJ	0.00027 UJ
1,2,3,6,7,8-HxCDD	0.00045 J	0.00048 J
1,2,3,7,8,9-HxCDD	0.0006 UJ	0.00027 UJ
1,2,3,4,6,7,8-HpCDD	0.00347 J	0.00136 UJ
OCDD	0.0243 J	0.00368 UJ
2,3,7,8-TCDF	0.00361 J#	0.00211 J#
1,2,3,7,8-PeCDF	0.00019 J	0.00039 UJ
2,3,4,7,8-PeCDF	0.00067 UJ	0.00045 J
1,2,3,4,7,8-HxCDF	0.00058 UJ	0.00017 J
1,2,3,6,7,8-HxCDF	0.0006 UJ	0.0001 J
2,3,4,6,7,8-HxCDF	0.00065 UJ	0.00014 UJ
1,2,3,7,8,9-HxCDF	0.00071 UJ	0.00016 UJ
1,2,3,4,6,7,8-HpCDF	0.00114 J	0.00036 UJ
1,2,3,4,7,8,9-HpCDF	0.0009 UJ	0.00017 UJ
OCDF	0.0022 UJ	0.00039 UJ
Total TCDD	0.39695 J	0.50332 J
Total PeCDD	0.00428 J	0.0007 UJ
Total HxCDD	0.00045 UJ	0.00048 J
Total HpCDD	0.00636 J	0.0019 UJ
Total TCDF	0.00154 J	0.00152 J
Total PeCDF	0.00121 J	0.00045 J
Total HxCDF	0.0018 UJ	0.00065 J
Total HpCDF	0.00247 UJ	0.00067 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.397	0.504
PCB Congeners (ug/Kg)		
2-Monochlorobiphenyl (1)	0.09504 J	
4-Chlorobiphenyl (3)	0.06119 J	
2,2'-Dichlorobiphenyl (4)	0.52967 J	
2,3-Dichlorobiphenyl (5)	0.02206 J	
2,3'-Dichlorobiphenyl (6)	0.32179 J	
2,4-Dichlorobiphenyl (7)	0.04439 J	
2,4'-Dichlorobiphenyl (8)	1.16279 J	
2,5-Dichlorobiphenyl (9)	0.10386 J	
2,6-Dichlorobiphenyl (10)	0.05547 J	
3,4-Dichlorobiphenyl (12)	0.01996 UJ	
2,2',3'-Trichlorobiphenyl (16)	1.1837 J	
2,2',4-Trichlorobiphenyl (17)	1.76036 J	

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PARAMETER	LPX-WS-4009-0000-01-W 6/21/2001	LPX-WS-4010-0000-01-W 6/21/2001
2,2',5-Trichlorobiphenyl (18)	2.37212 J	
2,2',6-Trichlorobiphenyl (19)	0.43454 J	
2,3,3'-Trichlorobiphenyl (20)	12.1426 J	
2,3,4'-Trichlorobiphenyl (22)	2.33134 J	
2,3,6-Trichlorobiphenyl (24)	0.36704 J	
2,3',4-Trichlorobiphenyl (25)	0.13643 J	
2,3',5-Trichlorobiphenyl (26)	0.69486 J	
2,4',5-Trichlorobiphenyl (31)	3.99927 J	
2,4',6-Trichlorobiphenyl (32)	1.08301 J	
2,2',3,3'-Tetrachlorobiphenyl (40)	6.34008 J	
2,2',3,4'-Tetrachlorobiphenyl (42)	5.70407 J	
2,2',3,5-Tetrachlorobiphenyl (43)	12.96165 J	
2,2',3,5'-Tetrachlorobiphenyl (44)	7.08521 J	
2,2',3,6-Tetrachlorobiphenyl (45)	1.94652 J	
2,2',3,6'-Tetrachlorobiphenyl (46)	0.65629 J	
2,2',4,5-Tetrachlorobiphenyl (48)	2.11028 J	
2,2',4,5'-Tetrachlorobiphenyl (49)	14.81116 J	
2,2',4,6-Tetrachlorobiphenyl (50)	1.58856 J	
2,3,3',4'-Tetrachlorobiphenyl (56)	5.39854 J	
2,3,3',6-Tetrachlorobiphenyl (59)	15.04476 J	
2,3,4,4'-Tetrachlorobiphenyl (60)	3.19007 J	
2,3,4,5-Tetrachlorobiphenyl (61)	32.14628 J	
2,3,4',5-Tetrachlorobiphenyl (63)	0.8928 J	
2,3,4',6-Tetrachlorobiphenyl (64)	10.04053 J	
2,3',4,4'-Tetrachlorobiphenyl (66)	27.56763 J	
3,3',4,4'-Tetrachlorobiphenyl (77)	0.64822 J	
3,4,4',5-Tetrachlorobiphenyl (81)	0.09978 UJ	
2,2',3,3',4-Pentachlorobiphenyl (82)	8.42585 J	
2,2',3,3',5-Pentachlorobiphenyl (83)	51.07994 J	
2,2',3,3',6-Pentachlorobiphenyl (84)	12.23555 J	
2,2',3,4,4'-Pentachlorobiphenyl (85)	6.87232 J	
2,2',3,4,5-Pentachlorobiphenyl (86)	55.97736 J	
2,2',3,4,6-Pentachlorobiphenyl (88)	9.1997 J	
2,2',3,4,6'-Pentachlorobiphenyl (89)	0.45716 J	
2,2',3,4',5-Pentachlorobiphenyl (90)	70.20954 J	
2,2',3,5,5'-Pentachlorobiphenyl (92)	10.01659 J	
2,2',3,5,6-Pentachlorobiphenyl (93)	36.3734 J	
2,3,3',4,4'-Pentachlorobiphenyl (105)	15.78211 J	
2,3,3',4,5-Pentachlorobiphenyl (106)	37.12125 J	

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PARAMETER	LPX-WS-4009-0000-01-W 6/21/2001	LPX-WS-4010-0000-01-W 6/21/2001
2,3,3',4',5'-Pentachlorobiphenyl (108)	2.39336 J	
2,3,3',4',6-Pentachlorobiphenyl (110)	54.42027 J	
2,3,4,4',5-Pentachlorobiphenyl (114)	1.49479 J	
2,3',4,4',5-Pentachlorobiphenyl (118)	74.09379 J	
2,3',4,4',5'-Pentachlorobiphenyl (123)		
3,3',4,4',5-Pentachlorobiphenyl (126)	0.09952 J	
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	16.11036 J	
2,2',3,3',4,5-Hexachlorobiphenyl (129)	96.47376 J	
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	5.57121 J	
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1.05748 J	
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	23.07429 J	
2,2',3,3',5,6-Hexachlorobiphenyl (134)	2.37958 J	
2,2',3,3',5,5'-Hexachlorobiphenyl (135)	10.05705 J	
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	3.45842 J	
2,2',3,4,4',5-Hexachlorobiphenyl (137)	9.77952 J	
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	7.91512 J	
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1.52675 J	
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	9.57914 J	
2,2',3,4',5,6-Hexachlorobiphenyl (147)	44.3865 J	
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	62.651 J	
2,3,3',4,4',5-Hexachlorobiphenyl (156)	7.76356 J	
2,3,3',4,4',5'-Hexachlorobiphenyl (157)		
2,3,3',4,4',6-Hexachlorobiphenyl (158)	8.73738 J	
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	3.25965 J	
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.09978 UJ	
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	9.53936 J	
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	2.74958 J	
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1.49735 J	
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	3.85943 J	
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	0.21956 J	
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	0.48481 J	
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	3.78289 J	
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1.14405 J	
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	14.87992 J	
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	0.19956 UJ	
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	3.4802 J	
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	0.01309 J	
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	0.46831 J	
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	9.5184 J	

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Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-WS-4009-0000-01-W 6/21/2001	LPX-WS-4010-0000-01-W 6/21/2001
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.25369 J	
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1.92367 J	
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	0.30994 J	
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	2.23061 J	
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	0.66437 J	
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1.38958 J	
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	0.09168 J	
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	8.31008 J	
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	0.18685 J	
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	0.4897 J	
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	4.16882 J	
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	0.10931 J	
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	0.05843 J	
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	0.82561 J	
Decachlorobiphenyl (209)	4.77757 J	
PCB Congeners, Total	1023.47631 J	
Toxicity Equivalency (PCB)	0.0237	
Other (%)		
Lipid_percent	6.77	5.84

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
W - whole body

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Table A-20
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Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	MAP-LB-4001-0000-01-F 6/27/2001	MAP-LB-4001-0000-01-F 6/27/2001 REEXTRACTED	MAP-LB-4001-0000-01-O 6/27/2001
Semivolatile Organics (ug/Kg)										
1,1'-Biphenyl	6	10	0.64	1.82	0.23	0.56	0.40	0.64 U	0.7 U	0.36 J
2-Methylnaphthalene	10	10			0.96	6.91	3.99	0.96 J	2.71	4.52
Acenaphthene	10	10			0.1	2	0.82	0.1 J	0.26 J	0.73
Acenaphthylene	10	10			0.09	1.27	0.56	0.09 J	0.26 J	0.56 J
Anthracene	9	10	0.7	0.7	0.09	2.32	0.76	0.09 J	0.7 U	0.58 J
Benzo(a)anthracene	4	10	0.62	1.82	0.9	2.68	0.92	0.64 U	0.7 U	0.62 U
Benzo(a)pyrene	4	10	0.62	1.82	0.77	3.41	1.01	0.64 U	0.7 U	0.62 U
Benzo(b)fluoranthene	4	10	0.62	1.82	1.48	4.65	1.39	0.64 U	0.7 U	0.62 U
Benzo(g,h,i)perylene	4	10	0.7	9.1	1.16	2.46	1.77	3.22 U	0.7 U	3.1 U
Benzo(k)fluoranthene	4	10	0.62	1.82	1.33	4.32	1.30	0.64 U	0.7 U	0.62 U
Chrysene	4	10	0.62	2.12	1.88	6.31	1.78	0.64 U	0.7 U	0.62 U
Dibenzo(a,h)anthracene	7	10	0.64	0.7	0.02	0.5	0.25	0.64 UJ	0.7 U	0.04 J
Dibenzofuran	8	10	0.64	1.82	0.26	2.04	0.86	0.64 U	0.26 J	0.82
Fluoranthene	7	10	0.64	1.04	2.16	21.49	6.42	0.64 U	1.04 U	3.46
Fluorene	10	10			0.17	4.39	1.71	0.17 J	0.51 J	1.46
Indeno(1,2,3-cd)pyrene	4	10	0.62	1.82	1.07	2.62	0.95	0.64 U	0.7 U	0.62 U
Naphthalene	7	10	1.35	5.82	2.92	7.43	3.78	1.35 U	2.82 U	4.99
Phenanthrene	9	10	0.8	0.8	1.76	21.77	7.27	0.8 U	1.76	5.58
Pyrene	7	10	0.64	0.7	0.91	10.81	3.43	0.64 U	0.7 U	1.46
Total PAH	10	10			1.42	107.94	35.54	1.42 J	5.77 J	24.56 J
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	10	10			0.25	11.86	5.34	0.25 J	5.23	4.44
4,4'-DDE	10	10			0.14	144.52	41.70	1.77 J	0.14 J	33.6
4,4'-DDT	9	10	0.52	0.52	0.26	4.84	1.88	0.52 UJ	1.19	1.75
Aldrin	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
alpha-BHC	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
alpha-Chlordane	10	10			0.34	12.91	4.30	0.34 J	1.23	6.06
Aroclor, Total	10	10			45.01	1296.55	510.31	45.01 J	137.57	750.31
Aroclor-1016	0	10	6.19	18.2			4.26	6.44 UJ	6.98 U	6.19 U
Aroclor-1221	0	10	6.19	18.2			4.26	6.44 UJ	6.98 U	6.19 U
Aroclor-1232	0	10	6.19	18.2			4.26	6.44 UJ	6.98 U	6.19 U
Aroclor-1242	0	10	6.19	18.2			4.26	6.44 UJ	6.98 U	6.19 U
Aroclor-1248	0	10	6.19	18.2			4.26	6.44 UJ	6.98 U	6.19 U
Aroclor-1254	10	10			27.16	1246.56	410.71	40.28 J	126.49	687.79
Aroclor-1260	0	10	6.19	18.2			4.26	6.44 UJ	6.98 U	6.19 U
Aroclor-1268	10	10			4.73	400.01	99.60	4.73 J	11.09	62.52
beta-BHC	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U

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delta-BHC	0	10	0.5	1.46			0.34	0.52 UJ	0.56 UJ	0.5 U
Dieldrin	7	10	0.52	1.46	0.57	3.35	1.13	0.52 UJ	0.57	1.3
Endosulfan I	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
Endosulfan II	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
Endosulfan Sulfate	1	10	0.5	1.46	1.9	1.9	0.51	0.52 UJ	1.9	0.5 U
Endrin	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
Endrin Aldehyde	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
Endrin Ketone	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
gamma-BHC	0	10	0.5	1.46			0.34	0.52 UJ	0.56 UJ	0.5 U
gamma-Chlordane	10	10			0.11	4.28	1.52	0.11 J	0.5 J	2.34
Heptachlor	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
Heptachlor Epoxide	6	10	0.51	1.46	0.1	0.68	0.35	0.52 UJ	0.56 U	0.17 J
Methoxychlor	0	10	0.5	1.46			0.34	0.52 UJ	0.56 U	0.5 U
Technical Chlordane	8	10	64.26	64.37	24.74	322.64	119.84	64.37 UJ	24.74	190.24
Toxaphene	0	10	6.98	36.4			8.03	12.87 UJ	6.98 U	12.38 U
Inorganics (mg/Kg)										
Aluminum	6	9	1.12	1.12	5.29	58.6	20.0	1.12 U		8.46
Antimony	0	9	0.034	0.034			0.0170	0.034 U		0.034 U
Arsenic	0	9	0.034	0.0762			0.0252	0.0382 U		0.0461 U
Barium	7	9	0.0151	0.039	0.115	8.01	1.89	0.115		0.607
Beryllium	0	9	0.004	0.00616			0.00229	0.004 U		0.004 U
Cadmium	6	9	0.2	0.2	0.00604	0.024	0.0424	0.2 U		0.00966 J
Chromium	8	9	0.269	0.269	0.108	0.403	0.207	0.108 J		0.138 J
Cobalt	9	9			0.00443	0.0588	0.0294	0.00883 J		0.0335 J
Copper	9	9			0.162	0.68	0.417	0.208		0.557
Iron	9	9			2.07	86	39.2	3.01		37.3
Lead	7	9	0.022	0.022	0.0119	0.322	0.128	0.0119 J		0.0758
Manganese	9	9			0.19	11.7	4.09	0.488 J		2.49 J
Mercury	9	9			0.0595	0.259	0.158	0.259		0.206
Mercury (methyl)	9	9			0.0568	0.278	0.125	0.278		0.188
Molybdenum	6	9	0.32	0.32	0.0179	0.0414	0.0728	0.32 U		0.0287 J
Nickel	7	9	0.32	0.32	0.0221	0.0923	0.0800	0.0221 J		0.0416 J
Selenium	2	9	0.448	0.448	0.141	0.226	0.215	0.448 U		0.226 J
Silver	0	9	0.06	0.06			0.0300	0.06 U		0.06 U
Thallium	7	9	0.022	0.022	0.00429	0.00699	0.00678	0.00471 J		0.00641 J
Vanadium	4	9	0.179	0.179	0.0361	0.0815	0.0751	0.179 U		0.179 U
Zinc	0	9	5.5	22.2			6.96	6.12 U		19.6 U

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Dioxins/Furans (ug/Kg)										
HCX	8	9	0.07988	0.07988	0.00345	0.03607	0.02054	0.00345 J		0.02363 J
TCX	0	0						R		R
2,3,7,8-TCDD	9	9			0.00543	0.20729	0.07600	0.03021 J		0.13564 J
1,2,3,7,8-PeCDD	4	9	0.00023	0.00206	0.00015	0.00051	0.00037	0.00041 J		0.0003 UJ
1,2,3,4,7,8-HxCDD	0	9	0.00006	0.00063			0.00013	0.00032 U		0.00016 U
1,2,3,6,7,8-HxCDD	0	9	0.00018	0.00064			0.00017	0.00028 U		0.00028 U
1,2,3,7,8,9-HxCDD	0	9	0.00012	0.0006			0.00014	0.00028 U		0.00023 U
1,2,3,4,6,7,8-HpCDD	0	9	0.00029	0.00112			0.00035	0.0006 U		0.00112 U
OCDD	0	9	0.00179	0.00877			0.00195	0.00429 U		0.00877 U
2,3,7,8-TCDF	2	9	0.00016	0.0011	0.00063	0.00095	0.00033	0.00022 U		0.00016 U
1,2,3,7,8-PeCDF	0	9	0.00016	0.00121			0.00022	0.00039 U		0.00016 U
2,3,4,7,8-PeCDF	7	9	0.00023	0.00104	0.00014	0.00052	0.00031	0.00045 J		0.00023 J
1,2,3,4,7,8-HxCDF	0	9	0.00015	0.00041			0.00013	0.00041 U		0.00016 U
1,2,3,6,7,8-HxCDF	0	9	0.00013	0.00039			0.00012	0.00039 U		0.00013 U
2,3,4,6,7,8-HxCDF	0	9	0.00011	0.00034			0.00011	0.00028 U		0.00021 U
1,2,3,7,8,9-HxCDF	0	9	0.00006	0.00028			0.00010	0.00025 U		0.00017 U
1,2,3,4,6,7,8-HpCDF	0	9	0.00015	0.00059			0.00019	0.0004 U		0.00042 U
1,2,3,4,7,8,9-HpCDF	2	9	0.00006	0.00042	0.00045	0.00072	0.00022	0.00023 U		0.00072 J
OCDF	0	9	0.00024	0.00368			0.00065	0.00083 U		0.00368 U
Total TCDD	9	9			0.00543	0.20729	0.07600	0.03021 J		0.13564 J
Total PeCDD	0	9	0.00023	0.00206			0.00035	0.00076 UJ		0.0003 UJ
Total HxCDD	0	9	0.00022	0.00102			0.00032	0.00088 UJ		0.00067 UJ
Total HpCDD	0	9	0.00029	0.00191			0.00053	0.0006 UJ		0.00191 UJ
Total TCDF	0	9	0.00018	0.00127			0.00032	0.00022 UJ		0.00027 UJ
Total PeCDF	3	9	0.00001	0.001	0.00151	0.00228	0.00087	0.00084 UJ		0.00062 UJ
Total HxCDF	0	9	0.00015	0.00349			0.00065	0.00143 UJ		0.00068 UJ
Total HpCDF	0	9	0.00039	0.00275			0.00070	0.0009 UJ		0.00126 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	9	9			0.00543	0.208	0.0763	0.0308		0.136

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Other (%)										
Lipid_percent	8	8			0.407	3.27	1.59	0.458		1.39

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., *et al.*, 1998. *Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Semivolatile Organics (ug/Kg)								
1,1'-Biphenyl	0.23 J	0.64 U	0.35 J	0.24 J		1.82 U		0.56 J
2-Methylnaphthalene	3.84	2.34	4.98	4.16		3.7		6.91
Acenaphthene	0.55	0.22 J	1.42	1.05		0.43 J		2
Acenaphthylene	0.45 J	0.24 J	0.76	0.59		0.41 J		1.27
Anthracene	0.36 J	0.2 J	0.87	0.66		0.5 J		2.32
Benzo(a)anthracene	0.65 U	0.64 U	1.31	0.9		1.82 U		2.68
Benzo(a)pyrene	0.65 U	0.64 U	1.12	0.77		1.82 U		3.41
Benzo(b)fluoranthene	0.65 U	0.64 U	2.14	1.48		1.82 U		4.65 J
Benzo(g,h,i)perylene	2.2 U	3.21 U	1.68 J	1.16 J		9.1 U		2.46 J
Benzo(k)fluoranthene	0.65 U	0.64 U	1.93	1.33		1.82 U		4.32 J
Chrysene	0.55 U	0.64 U	2.72	1.88		2.12 U		6.31
Dibenzo(a,h)anthracene	0.02 J	0.64 U	0.21 J	0.15 J		0.22 J		0.5 J
Dibenzofuran	0.61	0.27 J	1.17	0.89		1.82 U		2.04
Fluoranthene	2.16	0.98 U	8.12	5.6		5.82		21.49
Fluorene	1.1	0.46 J	2.67	1.99		1.05 J		4.39
Indeno(1,2,3-cd)pyrene	0.65 U	0.64 U	1.55	1.07		1.82 U		2.62
Naphthalene	3.12	2.92	5.04	4.38		5.82 U		7.43
Phenanthrene	4.15	2.04	9.07	6.89		4.98		21.77
Pyrene	0.91	0.64 U	4.88	3.37		3.5		10.81
Total PAH	17.51 J	8.68 J	52 J	38.56 J		20.62 J		107.94 J
Pesticides/PCBs (ug/Kg)								
4,4'-DDD	3.22	1.03	9.31	6.74		2.63		11.86
4,4'-DDE	22.96	12.35	144.52	103.52 D		9.01		51.81
4,4'-DDT	1.14	0.26 J	2.78	1.99		1.01 J		4.84
Aldrin	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
alpha-BHC	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
alpha-Chlordane	4.25	0.38 J	3.36	2.43		2.63		12.91
Aroclor, Total	520.49	94.72	620.94	457.69		240.66		1296.55
Aroclor-1016	6.49 U	6.43 U	6.32 U	6.35 U		18.2 U		9.38 U
Aroclor-1221	6.49 U	6.43 U	6.32 U	6.35 U		18.2 U		9.38 U
Aroclor-1232	6.49 U	6.43 U	6.32 U	6.35 U		18.2 U		9.38 U
Aroclor-1242	6.49 U	6.43 U	6.32 U	6.35 U		18.2 U		9.38 U
Aroclor-1248	6.49 U	6.43 U	6.32 U	6.35 U		18.2 U		9.38 U
Aroclor-1254	477.26	27.16	220.93	160.82		220.52		1246.56
Aroclor-1260	6.49 U	6.43 U	6.32 U	6.35 U		18.2 U		9.38 U
Aroclor-1268	43.23	67.55	400.01	296.87 D		20.13		49.99
beta-BHC	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U

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delta-BHC	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
Dieldrin	1.03	0.52 U	0.93	0.64		1.46 U		3.35
Endosulfan I	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
Endosulfan II	0.52 U	0.51 U	0.51 U	0.51 U		1.46 U		0.75 U
Endosulfan Sulfate	0.71 U	0.51 U	0.51 U	0.51 U		1.46 U		0.75 U
Endrin	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
Endrin Aldehyde	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
Endrin Ketone	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
gamma-BHC	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
gamma-Chlordane	1.65	0.11 J	1.22	0.88		0.96 J		4.28
Heptachlor	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
Heptachlor Epoxide	0.1 J	0.51 U	0.34 J	0.24 J		1.46 U		0.68 J
Methoxychlor	0.52 U	0.52 U	0.51 U	0.51 U		1.46 U		0.75 U
Technical Chlordane	128.16	64.26 U	99.37	88.54		64.98 J		322.64
Toxaphene	10.36 U	12.85 U	12.64 U	12.7 U		36.4 U		18.77 U
Inorganics (mg/Kg)								
Aluminum	5.29	1.12 U	40	27.6		1.12 U		58.6
Antimony	0.034 U	0.034 U	0.034 U	0.034 U		0.034 U		0.034 U
Arsenic	0.0431 U	0.0415 U	0.0762 U	0.0654 U		0.034 U		0.0592 U
Barium	0.422	0.039 U	8.01	5.53		0.0151 U		1.37
Beryllium	0.004 U	0.004 U	0.00616 U	0.00549 U		0.004 U		0.00493 U
Cadmium	0.00604 J	0.2 U	0.024 J	0.0166 J		0.2 U		0.015 J
Chromium	0.127 J	0.269 U	0.403	0.278		0.115 J		0.315
Cobalt	0.0242 J	0.00556 J	0.0588 J	0.0423 J		0.00443 J		0.0515 J
Copper	0.426	0.162	0.68	0.519		0.199		0.562
Iron	24.4	2.07	82.9	57.8		2.07		86
Lead	0.0518	0.022 U	0.322	0.222		0.022 U		0.266
Manganese	1.74 J	0.19 J	11.7 J	8.13 J		0.207 J		7.07 J
Mercury	0.226	0.203	0.142	0.161		0.0924		0.0595
Mercury (methyl)	0.222	0.0919	0.0568	0.0677		0.0758		0.0696
Molybdenum	0.0179 J	0.32 U	0.0414 J	0.0286 J		0.32 U		0.0351 J
Nickel	0.0343 J	0.32 U	0.0879 J	0.0606 J		0.32 U		0.0923 J
Selenium	0.141 J	0.448 U	0.448 U	0.448 U		0.448 U		0.448 U
Silver	0.06 U	0.06 U	0.06 U	0.06 U		0.06 U		0.06 U
Thallium	0.00577 J	0.022 U	0.00622 J	0.00429 J		0.022 U		0.00699 J
Vanadium	0.179 U	0.179 U	0.0815 J	0.0562 J		0.179 U		0.0545 J
Zinc	14.5 U	5.5 U	22.2 U	17 U		6.54 U		19.1 U

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Table A-20

Summary Statistics and Analytical Results for Largemouth Bass - Manton

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	MAP-LB-4001-0000-01-W 6/27/2001	MAP-LB-4002-0000-01-F 6/27/2001	MAP-LB-4002-0000-01-O 6/27/2001	MAP-LB-4002-0000-01-W 6/27/2001	MAP-LB-4003-0000-01-F 6/27/2001 DUPLICATE	MAP-LB-4003-0000-01-F 6/27/2001	MAP-LB-4003-0000-01-O 6/27/2001 DUPLICATE	MAP-LB-4003-0000-01-O 6/27/2001
Dioxins/Furans (ug/Kg)								
HCX	0.01606 J	0.07988 UJ	0.02054 J	0.01417 J		0.00536 J		0.03607 J
TCX	R	R	R	R		R		R
2,3,7,8-TCDD	0.0961 J	0.00543	0.02791	0.02094		0.01747		0.20729
1,2,3,7,8-PeCDD	0.00015 J	0.00206 U	0.00023 U	0.0008 U		0.00038 U		0.00051 J
1,2,3,4,7,8-HxCDD	0.00022 U	0.00063 U	0.00006 U	0.00024 U		0.00022 U		0.00029 U
1,2,3,6,7,8-HxCDD	0.00028 U	0.00064 U	0.00018 U	0.00032 U		0.00023 U		0.00042 U
1,2,3,7,8,9-HxCDD	0.00025 U	0.0006 U	0.00012 U	0.00027 U		0.00021 U		0.00031 U
1,2,3,4,6,7,8-HpCDD	0.00092 U	0.0007 U	0.00042 U	0.00051 U		0.00029 U		0.00097 U
OCDD	0.00709 U	0.00179 U	0.00189 U	0.00186 U		0.00216 U		0.00387 U
2,3,7,8-TCDF	0.00018 U	0.0011 U	0.00032 U	0.00056 U		0.00018 U		0.00095 J
1,2,3,7,8-PeCDF	0.00025 U	0.00121 U	0.00025 U	0.00055 U		0.00023 U		0.00048 U
2,3,4,7,8-PeCDF	0.00031 J	0.00104 U	0.0002 J	0.00014 J		0.00023 U		0.00052 J
1,2,3,4,7,8-HxCDF	0.00025 U	0.00023 U	0.0002 U	0.00021 U		0.00015 U		0.0004 U
1,2,3,6,7,8-HxCDF	0.00023 U	0.00023 U	0.00019 U	0.0002 U		0.00014 U		0.00032 U
2,3,4,6,7,8-HxCDF	0.00024 U	0.00024 U	0.00011 U	0.00015 U		0.00014 U		0.00034 U
1,2,3,7,8,9-HxCDF	0.0002 U	0.00027 U	0.00006 U	0.00013 U		0.00016 U		0.00028 U
1,2,3,4,6,7,8-HpCDF	0.00041 U	0.00059 U	0.00018 U	0.00031 U		0.00015 U		0.00059 U
1,2,3,4,7,8,9-HpCDF	0.00045 J	0.00016 U	0.00006 U	0.00009 U		0.00024 U		0.00042 U
OCDF	0.00261 U	0.0007 U	0.00024 U	0.00038 U		0.00121 U		0.00097 U
Total TCDD	0.0961 J	0.00543 J	0.02791 J	0.02094 J		0.01747 J		0.20729 J
Total PeCDD	0.00047 UJ	0.00206 UJ	0.00023 UJ	0.0008 UJ		0.00058 UJ		0.00051 UJ
Total HxCDD	0.00075 UJ	0.00062 UJ	0.00036 UJ	0.00044 UJ		0.00022 UJ		0.00102 UJ
Total HpCDD	0.00142 UJ	0.00149 UJ	0.00064 UJ	0.0009 UJ		0.00029 UJ		0.00136 UJ
Total TCDF	0.00025 UJ	0.0011 UJ	0.0007 UJ	0.00082 UJ		0.00018 UJ		0.00127 UJ
Total PeCDF	0.0007 UJ	0.00214 J	0.001 UJ	0.00066 UJ		0.00001 UJ		0.00228 J
Total HxCDF	0.00096 UJ	0.00349 UJ	0.0006 UJ	0.0015 UJ		0.00015 UJ		0.00166 UJ
Total HpCDF	0.00112 UJ	0.00235 UJ	0.00072 UJ	0.00123 UJ		0.00039 UJ		0.00275 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.0964	0.00543	0.028	0.021		0.0175		0.208

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Table A-20
Summary Statistics and Analytical Results for Largemouth Bass - Manton

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	MAP-LB-4001-0000-01-W 6/27/2001	MAP-LB-4002-0000-01-F 6/27/2001	MAP-LB-4002-0000-01-O 6/27/2001	MAP-LB-4002-0000-01-W 6/27/2001	MAP-LB-4003-0000-01-F 6/27/2001 DUPLICATE	MAP-LB-4003-0000-01-F 6/27/2001	MAP-LB-4003-0000-01-O 6/27/2001 DUPLICATE	MAP-LB-4003-0000-01-O 6/27/2001
Other (%)								
Lipid_percent		0.407	1.94		1.4	0.777	3.09	3.27

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Table A-20

Summary Statistics and Analytical Results for Largemouth Bass - Manton

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	MAP-LB-4003-0000-01-W 6/27/2001
Semivolatile Organics (ug/Kg)	
1,1'-Biphenyl	0.37 J
2-Methylnaphthalene	5.82
Acenaphthene	1.47
Acenaphthylene	0.98
Anthracene	1.71
Benzo(a)anthracene	1.77
Benzo(a)pyrene	2.26
Benzo(b)fluoranthene	3.07 J
Benzo(g,h,i)perylene	1.63 J
Benzo(k)fluoranthene	2.86 J
Chrysene	4.18
Dibenzo(a,h)anthracene	0.4 J
Dibenzofuran	1.35
Fluoranthene	16.18
Fluorene	3.26
Indeno(1,2,3-cd)pyrene	1.74
Naphthalene	4.92
Phenanthrene	16.09
Pyrene	8.34
Total PAH	78.38 J
Pesticides/PCBs (ug/Kg)	
4,4'-DDD	8.73
4,4'-DDE	37.32 D
4,4'-DDT	3.54
Aldrin	0.99 U
alpha-BHC	0.99 U
alpha-Chlordane	9.43
Aroclor, Total	939.12
Aroclor-1016	12.37 U
Aroclor-1221	12.37 U
Aroclor-1232	12.37 U
Aroclor-1242	12.37 U
Aroclor-1248	12.37 U
Aroclor-1254	899.24 D
Aroclor-1260	12.37 U
Aroclor-1268	39.88
beta-BHC	0.99 U

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Table A-20
Summary Statistics and Analytical Results for Largemouth Bass - Manton

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	MAP-LB-4003-0000-01-W 6/27/2001
delta-BHC	0.99 U
Dieldrin	2.22
Endosulfan I	0.99 U
Endosulfan II	0.99 U
Endosulfan Sulfate	0.99 U
Endrin	0.99 U
Endrin Aldehyde	0.99 U
Endrin Ketone	0.99 U
gamma-BHC	0.99 U
gamma-Chlordane	3.16
Heptachlor	0.99 U
Heptachlor Epoxide	0.45 J
Methoxychlor	0.99 U
Technical Chlordane	235.42
Toxaphene	24.74 U
Inorganics (mg/Kg)	
Aluminum	38.8
Antimony	0.034 U
Arsenic	0.0507 U
Barium	0.906
Beryllium	0.00462 U
Cadmium	0.00992 J
Chromium	0.247
Cobalt	0.0356 J
Copper	0.439
Iron	57.6
Lead	0.176
Manganese	4.75 J
Mercury	0.0706
Mercury (methyl)	0.0717
Molybdenum	0.0232 J
Nickel	0.0611 J
Selenium	0.448 U
Silver	0.06 U
Thallium	0.00462 J
Vanadium	0.0361 J
Zinc	14.8 U

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Table A-20
Summary Statistics and Analytical Results for Largemouth Bass - Manton

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	MAP-LB-4003-0000-01-W 6/27/2001
Dioxins/Furans (ug/Kg)	
HCX	0.02567 J
TCX	R
2,3,7,8-TCDD	0.14303
1,2,3,7,8-PeCDD	0.00034 J
1,2,3,4,7,8-HxCDD	0.00027 UJ
1,2,3,6,7,8-HxCDD	0.00036 UJ
1,2,3,7,8,9-HxCDD	0.00028 UJ
1,2,3,4,6,7,8-HpCDD	0.00074 UJ
OCDD	0.00329 UJ
2,3,7,8-TCDF	0.00063 J
1,2,3,7,8-PeCDF	0.0004 UJ
2,3,4,7,8-PeCDF	0.00034 J
1,2,3,4,7,8-HxCDF	0.00032 UJ
1,2,3,6,7,8-HxCDF	0.00026 UJ
2,3,4,6,7,8-HxCDF	0.00027 UJ
1,2,3,7,8,9-HxCDF	0.00024 UJ
1,2,3,4,6,7,8-HpCDF	0.00044 UJ
1,2,3,4,7,8,9-HpCDF	0.00036 UJ
OCDF	0.00105 UJ
Total TCDD	0.14303 J
Total PeCDD	0.00053 UJ
Total HxCDD	0.00075 UJ
Total HpCDD	0.001 UJ
Total TCDF	0.0009 UJ
Total PeCDF	0.00151 J
Total HxCDF	0.00115 UJ
Total HpCDF	0.00195 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.144

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Table A-20
Summary Statistics and Analytical Results for Largemouth Bass - Manton

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	MAP-LB-4003-0000-01-W 6/27/2001
Other (%)	
Lipid_percent	

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Table A-21
Summary Statistics and Analytical Results for American Eel - Dyerville

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	DYP-AE-5001-0000-01-W 7/2/2001	DYP-AE-5002-0000-01-W 7/2/2001	DYP-AE-5003-0000-01-W 7/2/2001
Semivolatile Organics (ug/Kg)										
1,1'-Biphenyl	3	3			0.39	0.42	0.40	0.42 J	0.39 J	0.39 J
2-Methylnaphthalene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Acenaphthene	3	3			1.79	2.28	1.98	2.28	1.79 J	1.88 J
Acenaphthylene	3	3			0.54	0.94	0.76	0.94 J	0.79 J	0.54 J
Anthracene	3	3			0.63	1.32	1.02	1.32 J	1.11 J	0.63 J
Benzo(a)anthracene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Benzo(a)pyrene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Benzo(b)fluoranthene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Benzo(g,h,i)perylene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Benzo(k)fluoranthene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Chrysene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Dibenzo(a,h)anthracene	1	3	1.87	1.89	0.17	0.17	0.68	1.87 U	0.17 J	1.89 U
Dibenzofuran	3	3			0.6	0.84	0.70	0.84 J	0.65 J	0.6 J
Fluoranthene	3	3			5.15	5.62	5.39	5.62	5.41	5.15
Fluorene	3	3			1.06	1.4	1.23	1.4 J	1.24 J	1.06 J
Indeno(1,2,3-cd)pyrene	0	3	1.87	1.89			0.94	1.87 U	1.88 U	1.89 U
Naphthalene	0	3	2.24	3.14			1.35	3.14 U	2.74 U	2.24 U
Phenanthrene	3	3			4.04	6.32	4.90	6.32	4.35	4.04
Pyrene	0	3	2.33	3.07			1.29	2.36 U	3.07 U	2.33 U
Total PAH	3	3			14.3	19.14	16.45	19.14 J	15.91 J	14.3 J
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	3	3			32.44	40.68	35.43	40.68	33.17	32.44
4,4'-DDE	3	3			6.88	14.74	11.04	14.74	11.49	6.88
4,4'-DDT	3	3			9.42	14.67	11.88	14.67	11.55	9.42
Aldrin	0	3	1.5	1.52			0.75	1.5 U	1.5 U	1.52 U
alpha-BHC	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
alpha-Chlordane	3	3			11.03	19.14	14.40	19.14	11.03	13.02
Aroclor, Total	3	3			288.77	449.5	370.26	449.5	288.77	372.5
Aroclor-1016	0	3	18.7	18.91			9.40	18.7 U	18.78 U	18.91 U
Aroclor-1221	0	3	18.7	18.91			9.40	18.7 U	18.78 U	18.91 U
Aroclor-1232	0	3	18.7	18.91			9.40	18.7 U	18.78 U	18.91 U
Aroclor-1242	0	3	18.7	18.91			9.40	18.7 U	18.78 U	18.91 U
Aroclor-1248	0	3	18.7	18.91			9.40	18.7 U	18.78 U	18.91 U
Aroclor-1254	3	3			288.77	449.5	370.26	449.5	288.77	372.5
Aroclor-1260	0	3	18.7	18.91			9.40	18.7 U	18.78 U	18.91 U
Aroclor-1268	0	3	18.7	18.91			9.40	18.7 U	18.78 U	18.91 U
beta-BHC	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
delta-BHC	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
Dieldrin	3	3			6.59	10.86	8.52	10.86	6.59	8.1

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Table A-21
Summary Statistics and Analytical Results for American Eel - Dyerville

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	DYP-AE-5001-0000-01-W 7/2/2001	DYP-AE-5002-0000-01-W 7/2/2001	DYP-AE-5003-0000-01-W 7/2/2001
Endosulfan I	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
Endosulfan II	0	3	1.5	1.51			0.75	1.5 U	1.5 U	1.51 U
Endosulfan Sulfate	0	3	1.5	1.52			0.75	1.5 U	1.5 U	1.52 U
Endrin	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
Endrin Aldehyde	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
Endrin Ketone	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
gamma-BHC	0	3	1.5	1.52			0.75	1.5 U	1.5 U	1.52 U
gamma-Chlordane	3	3			4.82	6.8	5.74	6.8	4.82	5.59
Heptachlor	0	3	1.5	1.52			0.75	1.5 U	1.5 U	1.52 U
Heptachlor Epoxide	3	3			1.6	2.28	1.84	2.28	1.6	1.64
Methoxychlor	0	3	1.5	1.52			0.76	1.5 U	1.51 U	1.52 U
Technical Chlordane	3	3			240.74	387.98	310.06	387.98	240.74	301.46
Toxaphene	0	3	37.4	37.81			18.79	37.4 U	37.55 U	37.81 U
Inorganics (mg/Kg)										
Aluminum	1	3	1.12	2.11	4.12	4.12	1.91	1.12 U	2.11 U	4.12
Antimony	0	3	0.034	0.034			0.0170	0.034 U	0.034 U	0.034 U
Arsenic	0	3	0.034	0.0389			0.0184	0.034 U	0.0389 U	0.0372 U
Barium	3	3			0.375	0.735	0.519	0.375	0.448	0.735
Beryllium	0	3	0.004	0.004			0.00200	0.004 U	0.004 U	0.004 U
Cadmium	3	3			0.0874	0.261	0.157	0.261	0.123 J	0.0874 J
Chromium	3	3			0.107	0.125	0.115	0.125 J	0.107 J	0.112 J
Cobalt	3	3			0.0369	0.0533	0.0444	0.043 J	0.0369 J	0.0533 J
Copper	3	3			0.521	0.648	0.575	0.648	0.555	0.521
Iron	3	3			11.7	17.1	13.8	11.7	12.6	17.1
Lead	3	3			0.184	0.562	0.341	0.562	0.184	0.278
Manganese	3	3			6.46	23	12.6	8.29 J	6.46 J	23 J
Mercury	3	3			0.0921	0.113	0.102	0.113	0.102	0.0921
Mercury (methyl)	3	3			0.111	0.122	0.117	0.122	0.111	0.118
Molybdenum	0	3	0.32	0.32			0.160	0.32 U	0.32 U	0.32 U
Nickel	3	3			0.0372	0.0623	0.0538	0.062 J	0.0372 J	0.0623 J
Selenium	0	3	0.448	0.448			0.224	0.448 U	0.448 U	0.448 U
Silver	0	3	0.06	0.06			0.0300	0.06 U	0.06 U	0.06 U
Thallium	0	3	0.022	0.022			0.0110	0.022 U	0.022 U	0.022 U
Vanadium	2	3	0.179	0.179	0.00195	0.00778	0.0331	0.179 U	0.00195 J	0.00778 J
Zinc	0	3	20.2	24.9			10.9	20.5 U	24.9 U	20.2 U
Dioxins/Furans (ug/Kg)										
HCX	3	3			0.02303	0.0343	0.02962	0.02303 J	0.03154 J	0.0343 J
TCX	0	0						R	R	R
2,3,7,8-TCDD	3	3			0.03075	0.07496	0.05165	0.03075 J	0.04923 J	0.07496 J
1,2,3,7,8-PeCDD	0	3	0.0004	0.00054			0.00023	0.0004 UJ	0.00054 UJ	0.00041 UJ

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Table A-21
Summary Statistics and Analytical Results for American Eel - Dyerville

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	DYP-AE-5001-0000-01-W 7/2/2001	DYP-AE-5002-0000-01-W 7/2/2001	DYP-AE-5003-0000-01-W 7/2/2001
1,2,3,4,7,8-HxCDD	2	3	0.00047	0.00047	0.00016	0.00026	0.00022	0.00016 J	0.00026 J	0.00047 UJ
1,2,3,6,7,8-HxCDD	3	3			0.0008	0.00189	0.00136	0.0008 J	0.0014 J	0.00189 J
1,2,3,7,8,9-HxCDD	3	3			0.00014	0.00038	0.00025	0.00014 J	0.00023 J	0.00038 J
1,2,3,4,6,7,8-HpCDD	2	3	0.00281	0.00281	0.00088	0.00185	0.00138	0.00088 J	0.00185 J	0.00281 UJ
OCDD	0	3	0.00121	0.00474			0.00164	0.00121 UJ	0.00474 UJ	0.00388 UJ
2,3,7,8-TCDF	0	3	0.00003	0.00048			0.00010	0.00003 UJ	0.00011 UJ	0.00048 UJ
1,2,3,7,8-PeCDF	0	3	0.00009	0.0007			0.00016	0.00009 UJ	0.00016 UJ	0.0007 UJ
2,3,4,7,8-PeCDF	0	3	0.00008	0.00064			0.00015	0.00008 UJ	0.00016 UJ	0.00064 UJ
1,2,3,4,7,8-HxCDF	0	3	0.00015	0.00028			0.00010	0.00015 UJ	0.00017 UJ	0.00028 UJ
1,2,3,6,7,8-HxCDF	2	3	0.00009	0.00009	0.00016	0.0002	0.00014	0.00009 UJ	0.00016 J	0.0002 J
2,3,4,6,7,8-HxCDF	0	3	0.00008	0.00014			0.00006	0.00008 UJ	0.00013 UJ	0.00014 UJ
1,2,3,7,8,9-HxCDF	0	3	0.00011	0.00054			0.00014	0.00011 UJ	0.00021 UJ	0.00054 UJ
1,2,3,4,6,7,8-HpCDF	2	3	0.00093	0.00093	0.00035	0.00066	0.00049	0.00035 J	0.00066 J	0.00093 UJ
1,2,3,4,7,8,9-HpCDF	0	3	0.00013	0.00039			0.00012	0.00022 UJ	0.00039 UJ	0.00013 UJ
OCDF	0	3	0.0001	0.00045			0.00016	0.0001 UJ	0.0004 UJ	0.00045 UJ
Total TCDD	3	3			0.03075	0.07496	0.05165	0.03075 J	0.04923 J	0.07496 J
Total PeCDD	0	3	0.00005	0.00054			0.00017	0.00041 UJ	0.00054 UJ	0.00005 UJ
Total HxCDD	3	3			0.00117	0.00227	0.00190	0.00117 J	0.00225 J	0.00227 J
Total HpCDD	1	3	0.00088	0.00332	0.00185	0.00185	0.00132	0.00088 UJ	0.00185 J	0.00332 UJ
Total TCDF	0	3	0.00003	0.00048			0.00010	0.00003 UJ	0.00011 UJ	0.00048 UJ
Total PeCDF	0	3	0.00007	0.00067			0.00015	0.00007 UJ	0.00016 UJ	0.00067 UJ
Total HxCDF	0	3	0.00023	0.00088			0.00026	0.00023 UJ	0.00046 UJ	0.00088 UJ
Total HpCDF	0	3	0.00035	0.00106			0.00035	0.00035 UJ	0.00066 UJ	0.00106 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	3	3			0.0309	0.0752	0.0519	0.0309	0.0495	0.0752
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	0	1	0.01381	0.01381			0.00691			0.01381 UJ
4-Chlorobiphenyl (3)	0	1	0.01836	0.01836			0.00918			0.01836 UJ
2,2'-Dichlorobiphenyl (4)	0	1	0.03477	0.03477			0.01739			0.03477 UJ
2,3-Dichlorobiphenyl (5)	0	1	0.00463	0.00463			0.00232			0.00463 UJ
2,3'-Dichlorobiphenyl (6)	0	1	0.02057	0.02057			0.01029			0.02057 UJ
2,4-Dichlorobiphenyl (7)	0	1	0.00666	0.00666			0.00333			0.00666 UJ
2,4'-Dichlorobiphenyl (8)	0	1	0.09667	0.09667			0.04834			0.09667 UJ
2,5-Dichlorobiphenyl (9)	0	1	0.00727	0.00727			0.00364			0.00727 UJ
2,6-Dichlorobiphenyl (10)	1	1			0.00268	0.00268	0.00268			0.00268 J
3,4-Dichlorobiphenyl (12)	0	1	0.01676	0.01676			0.00838			0.01676 UJ
2,2',3'-Trichlorobiphenyl (16)	0	1	0.04857	0.04857			0.02429			0.04857 UJ
2,2',4-Trichlorobiphenyl (17)	0	1	0.05355	0.05355			0.02678			0.05355 UJ
2,2',5-Trichlorobiphenyl (18)	1	1			0.15982	0.15982	0.15982			0.15982 J
2,2',6-Trichlorobiphenyl (19)	1	1			0.02776	0.02776	0.02776			0.02776 J
2,3,3'-Trichlorobiphenyl (20)	1	1			3.22044	3.22044	3.22044			3.22044 J

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Summary Statistics and Analytical Results for American Eel - Dyerville

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	DYP-AE-5001-0000-01-W 7/2/2001	DYP-AE-5002-0000-01-W 7/2/2001	DYP-AE-5003-0000-01-W 7/2/2001
2,3,4'-Trichlorobiphenyl (22)	1	1			0.27177	0.27177	0.27177			0.27177 J
2,3,6-Trichlorobiphenyl (24)	1	1			0.01452	0.01452	0.01452			0.01452 J
2,3',4-Trichlorobiphenyl (25)	1	1			0.02793	0.02793	0.02793			0.02793 J
2,3',5-Trichlorobiphenyl (26)	1	1			0.3579	0.3579	0.35790			0.3579 J
2,4',5-Trichlorobiphenyl (31)	1	1			1.40567	1.40567	1.40567			1.40567 J
2,4',6-Trichlorobiphenyl (32)	1	1			0.10034	0.10034	0.10034			0.10034 J
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			0.14319	0.14319	0.14319			0.14319 J
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			0.6374	0.6374	0.63740			0.6374 J
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			20.2713	20.2713	20.27130			20.2713 J
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			4.16655	4.16655	4.16655			4.16655 J
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.13632	0.13632	0.13632			0.13632 J
2,2',3,6'-Tetrachlorobiphenyl (46)	1	1			0.02449	0.02449	0.02449			0.02449 J
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			0.05171	0.05171	0.05171			0.05171 J
2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			2.07298	2.07298	2.07298			2.07298 J
2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.11934	0.11934	0.11934			0.11934 J
2,3,3',4'-Tetrachlorobiphenyl (56)	1	1			0.17596	0.17596	0.17596			0.17596 J
2,3,3',6-Tetrachlorobiphenyl (59)	1	1			3.66186	3.66186	3.66186			3.66186 J
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			1.42239	1.42239	1.42239			1.42239 J
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			5.38564	5.38564	5.38564			5.38564 J
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.28315	0.28315	0.28315			0.28315 J
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			5.36386	5.36386	5.36386			5.36386 J
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			11.69188	11.69188	11.69188			11.69188 J
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.02819	0.02819	0.02819			0.02819 J
3,4,4',5-Tetrachlorobiphenyl (81)	0	1	0.09993	0.09993			0.04997			0.09993 UJ
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			2.28854	2.28854	2.28854			2.28854 J
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			32.58536	32.58536	32.58536			32.58536 J
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			4.72812	4.72812	4.72812			4.72812 J
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			13.63254	13.63254	13.63254			13.63254 J
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			19.04436	19.04436	19.04436			19.04436 J
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			3.14948	3.14948	3.14948			3.14948 J
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.0108	0.0108	0.01080			0.0108 J
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			29.4711	29.4711	29.47110			29.4711 J
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			7.91422	7.91422	7.91422			7.91422 J
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			13.22935	13.22935	13.22935			13.22935 J
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			17.76672	17.76672	17.76672			17.76672 J
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			2.47083	2.47083	2.47083			2.47083 J
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.52728	0.52728	0.52728			0.52728 J
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			66.59896	66.59896	66.59896			66.59896 J
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			1.09474	1.09474	1.09474			1.09474 J
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			75.12281	75.12281	75.12281			75.12281 J

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3,3',4,4',5-Pentachlorobiphenyl (126)	1	1			0.09747	0.09747	0.09747			0.09747 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			20.97166	20.97166	20.97166			20.97166 J
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			118.6136	118.6136	118.61360			118.6136 J
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			7.99187	7.99187	7.99187			7.99187 J
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.26751	0.26751	0.26751			0.26751 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			8.35273	8.35273	8.35273			8.35273 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1	1			2.54478	2.54478	2.54478			2.54478 J
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			3.7839	3.7839	3.78390			3.7839 J
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1	1			1.27291	1.27291	1.27291			1.27291 J
2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			9.41756	9.41756	9.41756			9.41756 J
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			9.47607	9.47607	9.47607			9.47607 J
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			0.06787	0.06787	0.06787			0.06787 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			8.85862	8.85862	8.85862			8.85862 J
2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			33.16016	33.16016	33.16016			33.16016 J
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			53.56494	53.56494	53.56494			53.56494 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			8.67192	8.67192	8.67192			8.67192 J
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			8.76056	8.76056	8.76056			8.76056 J
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			4.22783	4.22783	4.22783			4.22783 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.11055	0.11055	0.11055			0.11055 J
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			17.84265	17.84265	17.84265			17.84265 J
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			4.29014	4.29014	4.29014			4.29014 J
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			2.23617	2.23617	2.23617			2.23617 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			4.40982	4.40982	4.40982			4.40982 J
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	1	1			0.21914	0.21914	0.21914			0.21914 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.12322	0.12322	0.12322			0.12322 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			7.79518	7.79518	7.79518			7.79518 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			1.78975	1.78975	1.78975			1.78975 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			20.97906	20.97906	20.97906			20.97906 J
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	0	1	0.19986	0.19986			0.09993			0.19986 UJ
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	1	1			3.85062	3.85062	3.85062			3.85062 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.01202	0.01202	0.01202			0.01202 J
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	1	1			0.21444	0.21444	0.21444			0.21444 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			16.26768	16.26768	16.26768			16.26768 J
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.36787	0.36787	0.36787			0.36787 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			2.67382	2.67382	2.67382			2.67382 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.43768	0.43768	0.43768			0.43768 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			4.20366	4.20366	4.20366			4.20366 J
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			1.43616	1.43616	1.43616			1.43616 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			1.82231	1.82231	1.82231			1.82231 J
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	1	1			0.07632	0.07632	0.07632			0.07632 J

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	DYP-AE-5001-0000-01-W 7/2/2001	DYP-AE-5002-0000-01-W 7/2/2001	DYP-AE-5003-0000-01-W 7/2/2001
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			12.3149	12.3149	12.31490			12.3149 J
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	1	1			0.08955	0.08955	0.08955			0.08955 J
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.43613	0.43613	0.43613			0.43613 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			4.31082	4.31082	4.31082			4.31082 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	1	1			0.15326	0.15326	0.15326			0.15326 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			8.15615	8.15615	8.15615			8.15615 J
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.58227	0.58227	0.58227			0.58227 J
Decachlorobiphenyl (209)	1	1			3.49705	3.49705	3.49705			3.49705 J
PCB Congeners, Total	1	1			771.6606	771.6606	771.66060			771.6606 J
Toxicity Equivalency (PCB)	1	1			0.0251	0.0251	0.0251			0.0251
Other (%)										
Lipid_percent	3	3			11.3	13.5	12.1	11.6	11.3	13.5

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Samples ending with:
W - whole body

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-AE-5001-0000-01-W 6/26/2001	RAB-AE-5002-0000-01-W 6/26/2001	RAB-AE-5003-0000-01-W 6/26/2001
Semivolatile Organics (ug/Kg)										
1,1'-Biphenyl	0	6	1.24	1.34			0.63	1.34 U	1.26 U	1.24 U
2-Methylnaphthalene	6	6			7.51	23.39	13.40	8.19	11.96	10.33
Acenaphthene	6	6			0.78	2.08	1.25	2.08	0.79 J	0.78 J
Acenaphthylene	2	6	1.24	1.26	1.36	1.79	0.94	1.26 U	1.26 U	1.24 U
Anthracene	1	6	1.24	1.26	0.83	0.83	0.66	0.83 J	1.26 U	1.24 U
Benzo(a)anthracene	0	6	1.24	1.41			0.64	1.41 U	1.26 U	1.24 U
Benzo(a)pyrene	0	6	1.24	1.74			0.67	1.74 U	1.26 U	1.24 U
Benzo(b)fluoranthene	0	6	1.24	2.01			0.69	2.01 U	1.26 U	1.24 U
Benzo(g,h,i)perylene	0	6	1.24	1.41			0.64	1.41 U	1.26 U	1.24 U
Benzo(k)fluoranthene	0	6	1.24	1.55			0.65	1.55 U	1.26 U	1.24 U
Chrysene	0	6	1.24	2.19			0.70	2.19 U	1.26 U	1.24 U
Dibenzo(a,h)anthracene	0	6	1.24	1.26			0.63	1.26 U	1.26 U	1.24 U
Dibenzofuran	0	6	1.24	1.44			0.64	1.44 U	1.26 U	1.24 U
Fluoranthene	1	6	1.3	2.79	8.71	8.71	2.17	8.71	1.3 U	1.54 U
Fluorene	6	6			0.57	1.8	0.87	1.8	0.7 J	0.57 J
Indeno(1,2,3-cd)pyrene	0	6	1.24	1.75			0.67	1.75 U	1.26 U	1.24 U
Naphthalene	6	6			8.12	24.59	14.81	10.46	12.3	11.5
Phenanthrene	1	6	2.17	2.67	8.76	8.76	2.46	8.76	2.67 U	2.51 U
Pyrene	0	6	1.24	4.46			0.89	4.46 U	1.26 U	1.24 U
Total PAH	6	6			17.49	50.98	33.90	40.82 J	25.76 J	23.17 J
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	6	6			2.61	8.28	4.61	4.69 J	3.51 J	2.61 J
4,4'-DDE	6	6			9.95	37.3	17.60	17.14 J	13.17 J	9.95 J
4,4'-DDT	6	6			0.51	3.19	1.26	1.35 J	0.51 J	0.51 J
Aldrin	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
alpha-BHC	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
alpha-Chlordane	6	6			0.93	4.87	2.51	4.5 J	1.48 J	0.93 J
Aroclor, Total	2	6	164.79	167.63	46.65	102.46	80.25	46.65 J	167.63 UJ	165.87 UJ
Aroclor-1016	0	6	20.6	21			10.42	21 UJ	20.95 UJ	20.73 UJ
Aroclor-1221	0	6	20.6	21			10.42	21 UJ	20.95 UJ	20.73 UJ
Aroclor-1232	0	6	20.6	21			10.42	21 UJ	20.95 UJ	20.73 UJ
Aroclor-1242	0	6	20.6	21			10.42	21 UJ	20.95 UJ	20.73 UJ
Aroclor-1248	0	6	20.6	21			10.42	21 UJ	20.95 UJ	20.73 UJ
Aroclor-1254	2	6	20.6	20.95	46.65	102.46	31.78	46.65 J	20.95 UJ	20.73 UJ
Aroclor-1260	0	6	20.6	21			10.42	21 UJ	20.95 UJ	20.73 UJ
Aroclor-1268	0	6	20.6	21			10.42	21 UJ	20.95 UJ	20.73 UJ
beta-BHC	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-AE-5001-0000-01-W 6/26/2001	RAB-AE-5002-0000-01-W 6/26/2001	RAB-AE-5003-0000-01-W 6/26/2001
delta-BHC	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Dieldrin	6	6			0.73	2.46	1.26	1.34 J	0.92 J	0.73 J
Endosulfan I	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Endosulfan II	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Endosulfan Sulfate	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Endrin	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Endrin Aldehyde	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Endrin Ketone	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
gamma-BHC	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
gamma-Chlordane	6	6			0.33	1.85	0.89	1.58 J	0.44 J	0.33 J
Heptachlor	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Heptachlor Epoxide	5	6	1.68	1.68	0.26	1.38	0.77	1.37 J	1.68 UJ	0.3 J
Methoxychlor	0	6	1.65	1.68			0.84	1.68 UJ	1.68 UJ	1.66 UJ
Technical Chlordane	2	6	205.99	209.54	120.72	161.08	116.22	120.72 J	209.54 UJ	207.34 UJ
Toxaphene	0	6	41.2	41.99			20.85	41.99 UJ	41.91 UJ	41.47 UJ
Inorganics (mg/Kg)										
Aluminum	5	6	1.62	1.62	1.64	19.9	7.79	15	7.11	2.29
Antimony	0	6	0.034	0.034			0.0170	0.034 U	0.034 U	0.034 U
Arsenic	0	6	0.034	0.0852			0.0258	0.034 U	0.0614 U	0.0402 U
Barium	6	6			0.295	0.632	0.406	0.421 J	0.405 J	0.386 J
Beryllium	0	6	0.004	0.004			0.00200	0.004 U	0.004 U	0.004 U
Cadmium	6	6			0.00829	0.0176	0.0130	0.0117 J	0.0176 J	0.0138 J
Chromium	3	6	0.269	0.269	0.0286	0.0811	0.0961	0.0811 J	0.0633 J	0.0286 J
Cobalt	6	6			0.0182	0.0328	0.0249	0.0328 J	0.0242 J	0.0232 J
Copper	6	6			0.409	0.847	0.554	0.515	0.614	0.409
Iron	6	6			14.5	53.5	29.3	52.2 J	21.7 J	17.8 J
Lead	5	6	0.0237	0.0237	0.0335	0.0893	0.0466	0.0407 J	0.0893 J	0.0524 J
Manganese	6	6			3.61	7.75	5.39	5.95 J	6.5 J	4.09 J
Mercury	6	6			0.0569	0.14	0.0926	0.121 J	0.0642 J	0.0569 J
Mercury (methyl)	6	6			0.0505	0.137	0.0889	0.115	0.0505	0.0505
Molybdenum	0	6	0.32	0.32			0.160	0.32 U	0.32 U	0.32 U
Nickel	6	6			0.0297	0.309	0.0836	0.0297 J	0.0393 J	0.0445 J
Selenium	3	6	0.448	0.448	0.222	0.282	0.241	0.267 J	0.282 J	0.222 J
Silver	3	6	0.06	0.06	0.00365	0.0202	0.0221	0.00365 J	0.019 J	0.0202 J
Thallium	3	6	0.022	0.022	0.00227	0.00842	0.00791	0.00376 J	0.00227 J	0.022 U
Vanadium	4	6	0.179	0.179	0.00533	0.0295	0.0382	0.0295 J	0.00795 J	0.00764 J
Zinc	3	6	18.3	30.1	14.3	26.2	16.9	26.2	23.8	14.3

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-AE-5001-0000-01-W 6/26/2001	RAB-AE-5002-0000-01-W 6/26/2001	RAB-AE-5003-0000-01-W 6/26/2001
Dioxins/Furans (ug/Kg)										
HCX	0	6	0.01985	0.01996			0.00997	0.01994 UJ	0.01996 UJ	0.01985 UJ
TCX	0	0						R	R	R
2,3,7,8-TCDD	1	6	0.00015	0.00034	0.00153	0.00153	0.00036	0.00034 UJ	0.00015 UJ	0.00018 UJ
1,2,3,7,8-PeCDD	0	6	0.00008	0.0002			0.00006	0.00013 UJ	0.00015 UJ	0.00008 UJ
1,2,3,4,7,8-HxCDD	1	6	0.00006	0.00016	0.00016	0.00016	0.00007	0.0001 UJ	0.00009 UJ	0.00006 UJ
1,2,3,6,7,8-HxCDD	6	6			0.00027	0.00055	0.00038	0.00033 J	0.00027 J	0.00034 J
1,2,3,7,8,9-HxCDD	5	6	0	0	0.00006	0.00011	0.00007	0.00007 J	0.00006 J	0.00008 J
1,2,3,4,6,7,8-HpCDD	4	6	0.00038	0.00047	0.00052	0.00114	0.00054	0.00052 J	0.00052 J	0.00038 UJ
OCDD	0	6	0.00069	0.00168			0.00054	0.00099 UJ	0.00094 UJ	0.00069 UJ
2,3,7,8-TCDF	0	6	0.00003	0.00015			0.00005	0.00015 UJ	0.00003 UJ	0.0001 UJ
1,2,3,7,8-PeCDF	0	6	0.0001	0.0002			0.00007	0.00017 UJ	0.0001 UJ	0.0001 UJ
2,3,4,7,8-PeCDF	3	6	0.0001	0.00021	0.00009	0.00017	0.00010	0.00017 UJ	0.00012 J	0.0001 UJ
1,2,3,4,7,8-HxCDF	0	6	0.00009	0.00015			0.00005	0.00009 UJ	0.0001 UJ	0.00009 UJ
1,2,3,6,7,8-HxCDF	0	6	0.00004	0.00011			0.00004	0.00009 UJ	0.00006 UJ	0.00005 UJ
2,3,4,6,7,8-HxCDF	0	6	0.00004	0.00011			0.00004	0.00009 UJ	0.00004 UJ	0.00005 UJ
1,2,3,7,8,9-HxCDF	0	6	0.00007	0.00021			0.00006	0.0001 UJ	0.00007 UJ	0.0001 UJ
1,2,3,4,6,7,8-HpCDF	1	6	0.00013	0.00019	0.00039	0.00039	0.00013	0.00013 UJ	0.00018 UJ	0.00014 UJ
1,2,3,4,7,8,9-HpCDF	0	6	0.00008	0.00027			0.00008	0.00023 UJ	0.00014 UJ	0.00008 UJ
OCDF	0	6	0.0001	0.00056			0.00011	0.0001 UJ	0.00012 UJ	0.00018 UJ
Total TCDD	1	6	0.00015	0.00034	0.00153	0.00153	0.00036	0.00034 UJ	0.00015 UJ	0.00018 UJ
Total PeCDD	0	6	0.00008	0.0002			0.00006	0.00013 UJ	0.00015 UJ	0.00008 UJ
Total HxCDD	6	6			0.00044	0.00074	0.00054	0.0005 J	0.00044 J	0.00048 J
Total HpCDD	0	6	0.00038	0.00114			0.00034	0.00063 UJ	0.0007 UJ	0.00038 UJ
Total TCDF	0	6	0.00003	0.00015			0.00005	0.00015 UJ	0.00003 UJ	0.0001 UJ
Total PeCDF	0	6	0.00001	0.00017			0.00006	0.00017 UJ	0.00013 UJ	0.0001 UJ
Total HxCDF	0	6	0.00018	0.00041			0.00014	0.00018 UJ	0.00037 UJ	0.00026 UJ
Total HpCDF	0	6	0.00014	0.00058			0.00015	0.00024 UJ	0.00038 UJ	0.00014 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	6	6			0.000042	0.00165	0.000339	0.0000452	0.0000982	0.000042

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-AE-5001-0000-01-W 6/26/2001	RAB-AE-5002-0000-01-W 6/26/2001	RAB-AE-5003-0000-01-W 6/26/2001
Other (%)										
Lipid_percent	6	6			8.21	19.4	11.7	13	8.21	8.81

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
W - whole body

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-AE-5004-0000-01-W 6/27/2001	RAB-AE-5005-0000-01-W 6/27/2001	RAB-AE-5006-0000-01-W 7/2/2001
Semivolatile Organics (ug/Kg)			
1,1'-Biphenyl	1.24 UJ	1.25 UJ	1.26 UJ
2-Methylnaphthalene	23.39	7.51	19.03
Acenaphthene	0.97 J	1.23 J	1.67
Acenaphthylene	1.36	1.25 UJ	1.79
Anthracene	1.24 UJ	1.25 UJ	1.26 UJ
Benzo(a)anthracene	1.24 UJ	1.25 UJ	1.26 UJ
Benzo(a)pyrene	1.24 UJ	1.25 UJ	1.26 UJ
Benzo(b)fluoranthene	1.24 UJ	1.25 UJ	1.26 UJ
Benzo(g,h,i)perylene	1.24 UJ	1.25 UJ	1.26 UJ
Benzo(k)fluoranthene	1.24 UJ	1.25 UJ	1.26 UJ
Chrysene	1.24 UJ	1.25 UJ	1.26 UJ
Dibenzo(a,h)anthracene	1.24 UJ	1.25 UJ	1.26 UJ
Dibenzofuran	1.24 UJ	1.25 UJ	1.26 UJ
Fluoranthene	1.41 UJ	1.6 UJ	2.79 UJ
Fluorene	0.68 J	0.63 J	0.81 J
Indeno(1,2,3-cd)pyrene	1.24 UJ	1.25 UJ	1.26 UJ
Naphthalene	24.59	8.12	21.87
Phenanthrene	2.17 UJ	2.47 UJ	2.2 UJ
Pyrene	1.24 UJ	1.25 UJ	1.26 UJ
Total PAH	50.98 J	17.49 J	45.16 J
Pesticides/PCBs (ug/Kg)			
4,4'-DDD	2.88 J	5.71 J	8.28 J
4,4'-DDE	11.35 J	16.68 J	37.3 J
4,4'-DDT	0.73 J	1.24 J	3.19 J
Aldrin	1.65 UJ	1.67 UJ	1.68 UJ
alpha-BHC	1.65 UJ	1.67 UJ	1.68 UJ
alpha-Chlordane	1.59 J	1.7 J	4.87 J
Aroclor, Total	164.79 UJ	166.53 UJ	102.46 J
Aroclor-1016	20.6 UJ	20.82 UJ	20.98 UJ
Aroclor-1221	20.6 UJ	20.82 UJ	20.98 UJ
Aroclor-1232	20.6 UJ	20.82 UJ	20.98 UJ
Aroclor-1242	20.6 UJ	20.82 UJ	20.98 UJ
Aroclor-1248	20.6 UJ	20.82 UJ	20.98 UJ
Aroclor-1254	20.6 UJ	20.82 UJ	102.46 J
Aroclor-1260	20.6 UJ	20.82 UJ	20.98 UJ
Aroclor-1268	20.6 UJ	20.82 UJ	20.98 UJ
beta-BHC	1.65 UJ	1.67 UJ	1.68 UJ

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-AE-5004-0000-01-W 6/27/2001	RAB-AE-5005-0000-01-W 6/27/2001	RAB-AE-5006-0000-01-W 7/2/2001
delta-BHC	1.65 UJ	1.67 UJ	1.68 UJ
Dieldrin	0.94 J	1.17 J	2.46 J
Endosulfan I	1.65 UJ	1.67 UJ	1.68 UJ
Endosulfan II	1.65 UJ	1.67 UJ	1.68 UJ
Endosulfan Sulfate	1.65 UJ	1.67 UJ	1.68 UJ
Endrin	1.65 UJ	1.67 UJ	1.68 UJ
Endrin Aldehyde	1.65 UJ	1.67 UJ	1.68 UJ
Endrin Ketone	1.65 UJ	1.67 UJ	1.68 UJ
gamma-BHC	1.65 UJ	1.67 UJ	1.68 UJ
gamma-Chlordane	0.65 J	0.51 J	1.85 J
Heptachlor	1.65 UJ	1.67 UJ	1.68 UJ
Heptachlor Epoxide	0.26 J	0.46 J	1.38 J
Methoxychlor	1.65 UJ	1.67 UJ	1.68 UJ
Technical Chlordane	205.99 UJ	208.16 UJ	161.08 J
Toxaphene	41.2 UJ	41.63 UJ	41.96 UJ
Inorganics (mg/Kg)			
Aluminum	1.62 U	19.9	1.64
Antimony	0.034 U	0.034 U	0.034 U
Arsenic	0.0852 U	0.0551 U	0.034 U
Barium	0.295	0.632	0.299
Beryllium	0.004 U	0.004 U	0.004 U
Cadmium	0.0125 J	0.014 J	0.00829 J
Chromium	0.269 U	0.269 U	0.269 U
Cobalt	0.0182 J	0.0229 J	0.0283 J
Copper	0.413	0.525	0.847
Iron	16.3	53.5	14.5
Lead	0.0335	0.0516	0.0237 U
Manganese	3.61 J	7.75 J	4.42 J
Mercury	0.105	0.0686	0.14
Mercury (methyl)	0.11	0.0705	0.137
Molybdenum	0.32 U	0.32 U	0.32 U
Nickel	0.309 J	0.0436 J	0.0355 J
Selenium	0.448 U	0.448 U	0.448 U
Silver	0.06 U	0.06 U	0.06 U
Thallium	0.00842 J	0.022 U	0.022 U
Vanadium	0.179 U	0.00533 J	0.179 U
Zinc	25.3 U	18.3 U	30.1 U

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-AE-5004-0000-01-W 6/27/2001	RAB-AE-5005-0000-01-W 6/27/2001	RAB-AE-5006-0000-01-W 7/2/2001
Dioxins/Furans (ug/Kg)			
HCX	0.01996 UJ	0.01991 UJ	0.01996 UJ
TCX	R	R	R
2,3,7,8-TCDD	0.00029 UJ	0.00024 UJ	0.00153 J
1,2,3,7,8-PeCDD	0.0001 UJ	0.0001 UJ	0.0002 UJ
1,2,3,4,7,8-HxCDD	0.00008 UJ	0.00016 UJ	0.00016 J
1,2,3,6,7,8-HxCDD	0.00033 J	0.00055 J	0.00044 J
1,2,3,7,8,9-HxCDD	0.00009 J	0 UJ	0.00011 J
1,2,3,4,6,7,8-HpCDD	0.00047 UJ	0.00114 J	0.00066 J
OCDD	0.00083 UJ	0.00168 UJ	0.00132 UJ
2,3,7,8-TCDF	0.00004 UJ	0.00015 UJ	0.00009 UJ
1,2,3,7,8-PeCDF	0.00013 UJ	0.0002 UJ	0.00014 UJ
2,3,4,7,8-PeCDF	0.00017 J	0.00021 UJ	0.00009 J
1,2,3,4,7,8-HxCDF	0.00015 UJ	0.0001 UJ	0.00012 UJ
1,2,3,6,7,8-HxCDF	0.00011 UJ	0.00004 UJ	0.00007 UJ
2,3,4,6,7,8-HxCDF	0.00011 UJ	0.00006 UJ	0.00008 UJ
1,2,3,7,8,9-HxCDF	0.00009 UJ	0.00021 UJ	0.0001 UJ
1,2,3,4,6,7,8-HpCDF	0.00016 UJ	0.00039 J	0.00019 UJ
1,2,3,4,7,8,9-HpCDF	0.00008 UJ	0.00027 UJ	0.00018 UJ
OCDF	0.0001 UJ	0.00056 UJ	0.00031 UJ
Total TCDD	0.00029 UJ	0.00024 UJ	0.00153 J
Total PeCDD	0.0001 UJ	0.0001 UJ	0.0002 UJ
Total HxCDD	0.0005 J	0.00055 J	0.00074 J
Total HpCDD	0.00054 UJ	0.00114 UJ	0.00066 UJ
Total TCDF	0.00004 UJ	0.00015 UJ	0.00009 UJ
Total PeCDF	0.00017 UJ	0.00001 UJ	0.00009 UJ
Total HxCDF	0.00041 UJ	0.0002 UJ	0.00027 UJ
Total HpCDF	0.00021 UJ	0.00058 UJ	0.00027 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.000127	0.0000703	0.00165

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Table A-22
Summary Statistics and Analytical Results for American Eel - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-AE-5004-0000-01-W 6/27/2001	RAB-AE-5005-0000-01-W 6/27/2001	RAB-AE-5006-0000-01-W 7/2/2001
Other (%)			
Lipid_percent	11.9	8.63	19.4

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
W - whole body

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Table A-23
Summary Statistics and Analytical Results for Brown Bullhead - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-BB-5001-0000-01-W 6/26/2001	RAB-BB-5002-0000-01-W 6/26/2001	RAB-BB-5003-0000-01-W 7/2/2001
Semivolatile Organics (ug/Kg)										
1,1'-Biphenyl	3	3			0.49	0.76	0.64	0.67 J	0.49 J	0.76 J
2-Methylnaphthalene	3	3			8.41	24.29	17.30	19.19	8.41	24.29
Acenaphthene	2	3	1.92	1.92	0.41	0.41	0.59	0.41 J	1.92 U	0.41 J
Acenaphthylene	3	3			0.47	1.22	0.91	1.22 J	0.47 J	1.05 J
Anthracene	3	3			0.49	1.05	0.79	0.82 J	1.05 J	0.49 J
Benzo(a)anthracene	1	3	1.89	2.01	8.08	8.08	3.34	2.01 U	8.08	1.89 U
Benzo(a)pyrene	1	3	1.89	2.01	7.91	7.91	3.29	2.01 U	7.91	1.89 U
Benzo(b)fluoranthene	1	3	1.89	2.01	10.58	10.58	4.18	2.01 U	10.58	1.89 U
Benzo(g,h,i)perylene	1	3	1.89	2.01	4.62	4.62	2.19	2.01 U	4.62	1.89 U
Benzo(k)fluoranthene	1	3	1.89	2.01	8.94	8.94	3.63	2.01 U	8.94	1.89 U
Chrysene	1	3	1.89	2.01	11.61	11.61	4.52	2.01 U	11.61	1.89 U
Dibenzo(a,h)anthracene	1	3	1.89	2.01	1.29	1.29	1.08	2.01 U	1.29 J	1.89 U
Dibenzofuran	3	3			0.42	0.67	0.55	0.67 J	0.42 J	0.57 J
Fluoranthene	3	3			3.23	20.88	9.60	4.68	20.88	3.23
Fluorene	3	3			0.48	1.19	0.90	1.02 J	0.48 J	1.19 J
Indeno(1,2,3-cd)pyrene	1	3	1.89	2.01	6.53	6.53	2.83	2.01 U	6.53	1.89 U
Naphthalene	2	3	4.91	4.91	8.73	12.04	7.74	12.04	4.91 U	8.73
Phenanthrene	3	3			6.4	7.76	7.09	7.76	7.12	6.4
Pyrene	1	3	1.89	2.07	15.62	15.62	5.87	2.07 U	15.62	1.89 U
Total PAH	3	3			47.12	114.5	70.03	48.47 J	114.5 J	47.12 J
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	2	3	1.54	1.54	2.19	4.13	2.36	4.13	1.54 U	2.19
4,4'-DDE	3	3			6.67	23.74	12.70	23.74	7.69	6.67
4,4'-DDT	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Aldrin	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
alpha-BHC	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
alpha-Chlordane	2	3	1.54	1.54	1.57	2.88	1.74	2.88	1.54 U	1.57
Aroclor, Total	0	3	151.41	160.88			77.69	160.88 U	153.87 U	151.41 U
Aroclor-1016	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
Aroclor-1221	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
Aroclor-1232	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
Aroclor-1242	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
Aroclor-1248	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
Aroclor-1254	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
Aroclor-1260	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
Aroclor-1268	0	3	18.93	20.11			9.71	20.11 U	19.23 U	18.93 U
beta-BHC	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
delta-BHC	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U

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Table A-23
Summary Statistics and Analytical Results for Brown Bullhead - Assapumpset Pond

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-BB-5001-0000-01-W 6/26/2001	RAB-BB-5002-0000-01-W 6/26/2001	RAB-BB-5003-0000-01-W 7/2/2001
Dieldrin	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Endosulfan I	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Endosulfan II	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Endosulfan Sulfate	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Endrin	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Endrin Aldehyde	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Endrin Ketone	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
gamma-BHC	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
gamma-Chlordane	1	3	1.52	1.54	1.3	1.3	0.94	1.3 J	1.54 U	1.52 U
Heptachlor	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Heptachlor Epoxide	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Methoxychlor	0	3	1.52	1.61			0.78	1.61 U	1.54 U	1.52 U
Technical Chlordane	0	3	189.26	201.1			97.12	201.1 U	192.33 U	189.26 U
Toxaphene	0	3	37.85	40.22			19.42	40.22 U	38.47 U	37.85 U
Inorganics (mg/Kg)										
Aluminum	3	3			5.31	13.5	9.94	13.5	11	5.31
Antimony	0	3	0.034	0.034			0.0170	0.034 U	0.034 U	0.034 U
Arsenic	0	3	0.034	0.0462			0.0196	0.0462 U	0.0374 U	0.034 U
Barium	3	3			0.735	1.21	0.923	1.21 J	0.735 J	0.825
Beryllium	1	3	0.004	0.004	0.000348	0.000348	0.00145	0.004 U	0.000348 J	0.004 U
Cadmium	3	3			0.00463	0.0319	0.0149	0.00831 J	0.0319 J	0.00463 J
Chromium	3	3			0.0758	0.1	0.0912	0.0758 J	0.1 J	0.0979 J
Cobalt	3	3			0.0353	0.0456	0.0396	0.0456 J	0.0376 J	0.0353 J
Copper	3	3			0.409	0.688	0.580	0.688	0.644	0.409
Iron	3	3			43.6	58.1	50.0	58.1 J	48.3 J	43.6
Lead	3	3			0.0371	0.129	0.0894	0.102 J	0.129 J	0.0371
Manganese	3	3			3.07	5.42	4.32	3.07 J	4.46 J	5.42 J
Mercury	3	3			0.045	0.137	0.0766	0.0477	0.137 J	0.045
Mercury (methyl)	3	3			0.0417	0.145	0.0775	0.0417	0.145	0.0457
Molybdenum	0	3	0.32	0.32			0.160	0.32 U	0.32 U	0.32 U
Nickel	3	3			0.0337	0.0439	0.0381	0.0439 J	0.0368 J	0.0337 J
Selenium	2	3	0.448	0.448	0.162	0.196	0.194	0.162 J	0.196 J	0.448 U
Silver	2	3	0.06	0.06	0.00988	0.0236	0.0212	0.00988 J	0.0236 J	0.06 U
Thallium	1	3	0.022	0.022	0.00315	0.00315	0.00838	0.022 U	0.00315 J	0.022 U
Vanadium	2	3	0.179	0.179	0.0513	0.0711	0.0706	0.0513 J	0.0711 J	0.179 U
Zinc	2	3	13.5	13.5	10.4	12.2	9.78	10.4	12.2	13.5 U

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Table A-23
Summary Statistics and Analytical Results for Brown Bullhead - Assapumpset Pond

Data Evaluation Report
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-BB-5001-0000-01-W 6/26/2001	RAB-BB-5002-0000-01-W 6/26/2001	RAB-BB-5003-0000-01-W 7/2/2001
Dioxins/Furans (ug/Kg)										
HCX	0	3	0.01978	0.01996			0.00995	0.01996 UJ	0.01978 UJ	0.01995 UJ
TCX	0	1	0.05	0.05			0.02500	0.05 UJ	R	R
2,3,7,8-TCDD	1	3	0.0003	0.00031	0.00151	0.00151	0.00061	0.00151 J	0.0003 UJ	0.00031 UJ
1,2,3,7,8-PeCDD	2	3	0.0003	0.0003	0.00155	0.00198	0.00123	0.0003 UJ	0.00198 J	0.00155 J
1,2,3,4,7,8-HxCDD	0	3	0.00025	0.00075			0.00029	0.00025 UJ	0.00074 UJ	0.00075 UJ
1,2,3,6,7,8-HxCDD	0	3	0.00027	0.00078			0.00030	0.00027 UJ	0.00078 UJ	0.00077 UJ
1,2,3,7,8,9-HxCDD	0	3	0.00024	0.00072			0.00028	0.00024 UJ	0.00072 UJ	0.00072 UJ
1,2,3,4,6,7,8-HpCDD	0	3	0.00025	0.00394			0.00078	0.00046 UJ	0.00394 UJ	0.00025 UJ
OCDD	0	3	0.00047	0.00097			0.00039	0.00097 UJ	0.00092 UJ	0.00047 UJ
2,3,7,8-TCDF	2	3	0.0005	0.0005	0.00017	0.0002	0.00021	0.0002 J	0.0005 UJ	0.00017 J
1,2,3,7,8-PeCDF	0	3	0.00032	0.00045			0.00020	0.00045 UJ	0.00043 UJ	0.00032 UJ
2,3,4,7,8-PeCDF	1	3	0.00029	0.00037	0.00019	0.00019	0.00017	0.00019 J	0.00037 UJ	0.00029 UJ
1,2,3,4,7,8-HxCDF	0	3	0.00014	0.00085			0.00026	0.00014 UJ	0.00085 UJ	0.00057 UJ
1,2,3,6,7,8-HxCDF	0	3	0.00014	0.00083			0.00026	0.00014 UJ	0.00083 UJ	0.00056 UJ
2,3,4,6,7,8-HxCDF	0	3	0.00014	0.00082			0.00025	0.00014 UJ	0.00082 UJ	0.00054 UJ
1,2,3,7,8,9-HxCDF	0	3	0.00016	0.00105			0.00031	0.00016 UJ	0.00105 UJ	0.00063 UJ
1,2,3,4,6,7,8-HpCDF	0	3	0.00009	0.00103			0.00023	0.00009 UJ	0.00103 UJ	0.00026 UJ
1,2,3,4,7,8,9-HpCDF	0	3	0.0001	0.00121			0.00029	0.0001 UJ	0.00121 UJ	0.00042 UJ
OCDF	0	3	0.00022	0.00087			0.00023	0.00026 UJ	0.00087 UJ	0.00022 UJ
Total TCDD	0	3	0.0003	0.00151			0.00035	0.00151 UJ	0.0003 UJ	0.00031 UJ
Total PeCDD	2	3	0.0003	0.0003	0.00251	0.01074	0.00447	0.0003 UJ	0.00251 J	0.01074 J
Total HxCDD	0	3	0.00025	0.00075			0.00029	0.00025 UJ	0.00075 UJ	0.00074 UJ
Total HpCDD	0	3	0.00025	0.00394			0.00078	0.00046 UJ	0.00394 UJ	0.00025 UJ
Total TCDF	2	3	0.0005	0.0005	0.00017	0.00023	0.00022	0.00023 J	0.0005 UJ	0.00017 J
Total PeCDF	2	3	0.0004	0.0004	0.00019	0.00135	0.00058	0.00019 J	0.0004 UJ	0.00135 J
Total HxCDF	0	3	0.00014	0.00088			0.00027	0.00014 UJ	0.00088 UJ	0.00057 UJ
Total HpCDF	0	3	0.0001	0.00112			0.00026	0.0001 UJ	0.00112 UJ	0.00032 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	3	3			0.00157	0.00198	0.00173	0.00163	0.00198	0.00157

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Table A-23
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-BB-5001-0000-01-W 6/26/2001	RAB-BB-5002-0000-01-W 6/26/2001	RAB-BB-5003-0000-01-W 7/2/2001
Other (%)										
Lipid_percent	3	3			1.61	3.59	2.64	3.59	1.61	2.72

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,6,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
W - whole body

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-LB-5001-0000-01-F 6/26/2001	RAB-LB-5001-0000-01-O 6/26/2001	RAB-LB-5001-0000-01-W 6/26/2001
Semivolatile Organics (ug/Kg)										
1,1'-Biphenyl	6	12	0.63	1.83	0.48	0.98	0.66	1.83 U	0.65 U	1.04 U
2-Methylnaphthalene	12	12			4.09	56.93	23.99	4.09	9.35	7.61
Acenaphthene	11	12	1.51	1.51	0.13	0.93	0.51	0.19 J	0.48 J	0.39 J
Acenaphthylene	12	12			0.2	1.88	0.81	0.2 J	0.33 J	0.28 J
Anthracene	12	12			0.11	0.53	0.30	0.19 J	0.23 J	0.22 J
Benzo(a)anthracene	0	12	0.63	1.83			0.55	1.83 U	0.65 U	1.04 U
Benzo(a)pyrene	1	12	0.45	1.83	1.28	1.28	0.56	1.83 U	0.65 U	1.04 U
Benzo(b)fluoranthene	0	12	0.63	1.83			0.55	1.83 U	0.65 U	1.04 U
Benzo(g,h,i)perylene	0	12	3.16	9.15			2.73	9.15 U	3.24 U	5.2 U
Benzo(k)fluoranthene	1	12	0.45	1.83	1.3	1.3	0.57	1.83 U	0.65 U	1.04 U
Chrysene	0	12	0.63	1.83			0.55	1.83 U	0.65 U	1.04 U
Dibenzo(a,h)anthracene	3	12	0.04	1.17	0.14	0.22	0.24	0.14 J	0.65 U	0.04 U
Dibenzofuran	8	12	0.63	1.83	0.39	1.07	0.65	1.83 U	0.59 J	0.39 J
Fluoranthene	9	12	0.63	2.74	0.88	2.46	1.24	1.83 U	1.56	1.05
Fluorene	12	12			0.23	1.5	0.82	0.29 J	0.72	0.58
Indeno(1,2,3-cd)pyrene	0	12	0.63	1.83			0.55	1.83 U	0.65 U	1.04 U
Naphthalene	9	12	3.53	4.9	4.72	28.48	12.65	3.53 U	7.12	4.77
Phenanthrene	9	12	1.51	2.4	1.19	8.82	4.19	2.35 U	4.65	3.11
Pyrene	0	12	0.63	2.16			0.63	1.83 U	0.67 U	1.05 U
Total PAH	12	12			5.1	98.95	44.26	5.1 J	25.04 J	18.44 J
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	11	12	1.21	1.21	0.35	7.76	3.10	0.62 J	4.03	2.9
4,4'-DDE	12	12			1.74	84.12	24.22	4.55	23.21	17.04 D
4,4'-DDT	11	12	1.21	1.21	0.22	5.14	2.00	0.41 J	2	1.48
Aldrin	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
alpha-BHC	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
alpha-Chlordane	11	12	1.21	1.21	0.1	2.68	1.12	0.25 J	1.37	1
Aroclor, Total	8	12	50.49	146.44	57.58	233.25	92.16	146.44 U	92.21	61.7 J
Aroclor-1016	0	12	6.31	18.31			5.46	18.31 U	6.48 U	10.39 U
Aroclor-1221	0	12	6.31	18.31			5.46	18.31 U	6.48 U	10.39 U
Aroclor-1232	0	12	6.31	18.31			5.46	18.31 U	6.48 U	10.39 U
Aroclor-1242	0	12	6.31	18.31			5.46	18.31 U	6.48 U	10.39 U
Aroclor-1248	0	12	6.31	18.31			5.46	18.31 U	6.48 U	10.39 U
Aroclor-1254	8	12	6.31	18.31	53.64	211.74	68.68	18.31 U	82.59	55.27
Aroclor-1260	0	12	6.31	18.31			5.46	18.31 U	6.48 U	10.39 U
Aroclor-1268	8	12	6.31	18.31	3.93	21.51	9.12	18.31 U	9.62	6.43 J
beta-BHC	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-LB-5001-0000-01-F 6/26/2001	RAB-LB-5001-0000-01-O 6/26/2001	RAB-LB-5001-0000-01-W 6/26/2001
delta-BHC	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Dieldrin	6	12	0.51	1.47	0.45	1.24	0.65	1.47 U	0.68	0.45 J
Endosulfan I	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Endosulfan II	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Endosulfan Sulfate	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Endrin	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Endrin Aldehyde	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Endrin Ketone	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
gamma-BHC	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
gamma-Chlordane	8	12	0.51	1.47	0.26	0.78	0.49	1.47 U	0.39 J	0.26 J
Heptachlor	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Heptachlor Epoxide	4	12	0.51	1.47	0.19	0.35	0.42	1.47 U	0.52 U	0.83 U
Methoxychlor	0	12	0.51	1.47			0.44	1.47 U	0.52 U	0.83 U
Technical Chlordane	8	12	63.11	183.05	47.74	183.82	81.75	183.05 U	71.34	47.74 J
Toxaphene	0	12	12.62	36.61			10.91	36.61 U	12.95 U	20.78 U
Inorganics (mg/Kg)										
Aluminum	4	12	1.12	1.12	0.592	2.34	0.818	1.12 U	0.885 J	0.592 J
Antimony	0	12	0.034	0.034			0.0170	0.034 U	0.034 U	0.034 U
Arsenic	0	12	0.034	0.106			0.0284	0.034 U	0.0627 U	0.0532 U
Barium	9	12	0.0162	0.0378	0.0679	1.86	0.662	0.0378 U	1.16 J	0.776 J
Beryllium	6	12	0.004	0.004	0.000638	0.00187	0.00159	0.004 U	0.0014 J	0.000937 J
Cadmium	9	12	0.2	0.2	0.00309	0.0184	0.0328	0.2 U	0.0116 J	0.00776 J
Chromium	12	12			0.0423	0.203	0.115	0.0423 J	0.149 J	0.114 J
Cobalt	12	12			0.00416	0.0382	0.0210	0.00755 J	0.0382 J	0.0281 J
Copper	12	12			0.168	0.719	0.395	0.187	0.59	0.457
Iron	9	12	1.28	1.92	2.17	26.2	12.7	1.28 U	21.7 J	14.5 J
Lead	6	12	0.022	0.022	0.0127	0.032	0.0165	0.022 U	0.0284 J	0.019 J
Manganese	12	12			0.0892	13.5	4.06	0.238 J	6.32 J	4.31 J
Mercury	12	12			0.108	0.315	0.215	0.257 J	0.179 J	0.205 J
Mercury (methyl)	12	12			0.1	0.379	0.222	0.267	0.228	0.241
Molybdenum	2	12	0.32	0.32	0.0155	0.0244	0.137	0.32 U	0.32 U	0.32 U
Nickel	11	12	0.32	0.32	0.0116	0.0846	0.0627	0.0116 J	0.0821 J	0.0588 J
Selenium	10	12	0.0461	0.448	0.127	0.254	0.177	0.16 J	0.218 J	0.199 J
Silver	8	12	0.023	0.06	0.00417	0.0635	0.0204	0.06 U	0.023 J	0.0154 J
Thallium	12	12			0.00195	0.0161	0.00514	0.00281 J	0.0041 J	0.00367 J
Vanadium	11	12	0.179	0.179	0.000448	0.0278	0.0152	0.00218 J	0.0278 J	0.0193 J
Zinc	10	12	1.97	24.9	5.43	22.4	12.7	6.16	21.7	16.6

US EPA ARCHIVE DOCUMENT

Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-LB-5001-0000-01-F 6/26/2001	RAB-LB-5001-0000-01-O 6/26/2001	RAB-LB-5001-0000-01-W 6/26/2001
Dioxins/Furans (ug/Kg)										
HCX	5	12	0.02013	0.08059	0.00287	0.01906	0.01925	0.00535 J	0.00287 J	0.00369 J
TCX	0	0						R	R	R
2,3,7,8-TCDD	9	12	0.00053	0.00087	0.00069	0.02338	0.00404	0.00095	0.00129 0	0.00118
1,2,3,7,8-PeCDD	0	12	0.00014	0.00171			0.00025	0.00015 U	0.00017 U	0.00016 U
1,2,3,4,7,8-HxCDD	0	12	0.00012	0.00057			0.00013	0.00019 U	0.00012 U	0.00014 U
1,2,3,6,7,8-HxCDD	2	12	0.00007	0.00057	0.00074	0.00204	0.00032	0.0002 U	0.00013 U	0.00015 U
1,2,3,7,8,9-HxCDD	0	12	0.00004	0.00054			0.00013	0.00018 U	0.00012 U	0.00014 U
1,2,3,4,6,7,8-HpCDD	4	12	0.00009	0.00044	0.00124	0.00342	0.00082	0.00016 U	0.00032 U	0.00027 U
OCDD	2	12	0.0003	0.00339	0.04474	0.06842	0.01025	0.00158 U	0.00339 U	0.00279 U
2,3,7,8-TCDF	3	12	0.00008	0.00092	0.00029	0.00101	0.00026	0.00012 U	0.00018 UJ	0.00016 U
1,2,3,7,8-PeCDF	0	12	0.00006	0.00082			0.00017	0.00017 U	0.00006 U	0.0001 U
2,3,4,7,8-PeCDF	2	12	0.00016	0.00364	0.00007	0.0001	0.00052	0.00016 U	0.0001 J	0.00007 J
1,2,3,4,7,8-HxCDF	0	12	0.00007	0.00056			0.00012	0.00017 U	0.00012 U	0.00014 U
1,2,3,6,7,8-HxCDF	0	12	0.00006	0.00044			0.00008	0.00016 U	0.00006 U	0.00009 U
2,3,4,6,7,8-HxCDF	0	12	0.00005	0.00046			0.00010	0.00017 U	0.00005 U	0.00009 U
1,2,3,7,8,9-HxCDF	0	12	0.00008	0.00052			0.00011	0.00017 U	0.00008 U	0.00011 U
1,2,3,4,6,7,8-HpCDF	0	12	0.00009	0.00062			0.00012	0.00017 U	0.00009 U	0.00012 U
1,2,3,4,7,8,9-HpCDF	0	12	0.00011	0.00037			0.00011	0.0002 U	0.00011 U	0.00014 U
OCDF	0	12	0.00007	0.00276			0.00037	0.00014 U	0.00032 U	0.00026 U
Total TCDD	6	12	0.00056	0.00128	0.00071	0.02338	0.00390	0.00095 UJ	0.00128 UJ	0.00117 UJ
Total PeCDD	0	12	0.00005	0.00171			0.00027	0.00006 UJ	0.00039 UJ	0.00028 UJ
Total HxCDD	0	12	0.00011	0.00737			0.00052	0.00019 UJ	0.00012 UJ	0.00014 UJ
Total HpCDD	0	12	0.00009	0.00556			0.00074	0.00016 UJ	0.00051 UJ	0.00039 UJ
Total TCDF	0	12	0.00011	0.00101			0.00020	0.00012 UJ	0.00018 UJ	0.00016 UJ
Total PeCDF	0	12	0.00015	0.00204			0.00034	0.00016 UJ	0.00015 UJ	0.00015 UJ
Total HxCDF	0	12	0.0001	0.0015			0.00026	0.00017 UJ	0.00023 UJ	0.00021 UJ
Total HpCDF	0	12	0.00005	0.00278			0.00030	0.00018 UJ	0.0002 UJ	0.00019 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	9	9			0.000816	0.0234	0.00535	0.000951	0.00134	0.00121

US EPA ARCHIVE DOCUMENT

Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-LB-5001-0000-01-F 6/26/2001	RAB-LB-5001-0000-01-O 6/26/2001	RAB-LB-5001-0000-01-W 6/26/2001
Other (%)										
Lipid_percent	8	8			0.569	4.12	1.75	0.898	2.6	

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5002-0000-01-F 6/26/2001	RAB-LB-5002-0000-01-O 6/26/2001	RAB-LB-5002-0000-01-W 6/26/2001	RAB-LB-5003-0000-01-F 6/27/2001	RAB-LB-5003-0000-01-O 6/27/2001	RAB-LB-5003-0000-01-W 6/27/2001	RAB-LB-5004-0000-01-F 6/27/2001	RAB-LB-5004-0000-01-O 6/27/2001
Semivolatile Organics (ug/Kg)								
1,1'-Biphenyl	1.51 U	0.74 J	0.48 J	1.77 U	0.98 J	0.84 J	0.63 U	0.87
2-Methylnaphthalene	5.98	39.11	27.52	7.4	47.67	33.73	8.93	56.93
Acenaphthene	1.51 U	0.93	0.61	0.32 J	0.58 J	0.49 J	0.13 J	0.71
Acenaphthylene	0.26 J	1.26	0.91	0.3 J	1.52	1.1	0.32 J	1.88
Anthracene	0.15 J	0.53 J	0.4 J	0.24 J	0.41 J	0.35 J	0.11 J	0.43 J
Benzo(a)anthracene	1.51 U	0.8 U	1.05 U	1.77 U	1.17 U	1.38 U	0.63 U	0.63 U
Benzo(a)pyrene	1.28 J	0.8 U	0.45 U	1.77 U	1.17 U	1.38 U	0.63 U	0.63 U
Benzo(b)fluoranthene	1.51 U	0.8 U	1.05 U	1.77 U	1.17 U	1.38 U	0.63 U	0.63 U
Benzo(g,h,i)perylene	7.56 U	4 U	5.24 U	8.87 U	5.85 U	6.9 U	3.16 U	3.17 U
Benzo(k)fluoranthene	1.3 J	0.8 U	0.45 U	1.77 U	1.17 U	1.38 U	0.63 U	0.63 U
Chrysene	1.6 U	0.8 U	1.08 U	1.77 U	1.17 U	1.38 U	0.63 U	0.63 U
Dibenzo(a,h)anthracene	0.21 J	0.8 U	0.07 U	0.22 J	1.17 U	0.08 U	0.63 U	0.63 U
Dibenzofuran	1.51 U	1.07	0.7	1.77 U	0.7 J	0.46 J	0.63 U	0.64
Fluoranthene	2.54 U	2.46	1.6	2.74 U	1.98 U	2.24 U	0.63 U	1.38
Fluorene	0.23 J	1.5	1.05	0.5 J	1.36	1.06	0.24 J	1.36
Indeno(1,2,3-cd)pyrene	1.51 U	0.8 U	1.05 U	1.77 U	1.17 U	1.38 U	0.63 U	0.63 U
Naphthalene	4.9 U	26.53	17.25	4.48 U	22.13	14.47	4.72	28.48
Phenanthrene	1.51 U	8.82	5.73	2.4 U	7.84	5.12	1.19	6.27
Pyrene	2.11 U	1.17 U	1.5 U	2.16 U	1.17 U	1.51 U	0.63 U	0.63 U
Total PAH	9.41 J	82.93 J	57.22 J	8.97 J	83.2 J	57.51 J	15.65 J	98.95 J
Pesticides/PCBs (ug/Kg)								
4,4'-DDD	1.21 U	4.56	2.97	0.95 J	7.76 J	5.4	0.35 J	4.26
4,4'-DDE	1.74	17.91	12.26 D	9.32	84.12	58.23 D	3.08	35.47
4,4'-DDT	1.21 U	3.36	2.19	0.79 J	5.14 J	3.64	0.22 J	2.48
Aldrin	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
alpha-BHC	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
alpha-Chlordane	1.21 U	1.78	1.16	0.31 J	2.66	1.86	0.1 J	1.43
Aroclor, Total	120.89 U	88.54 J	57.58 J	141.92 U	233.25	152.53	50.49 U	116.21
Aroclor-1016	15.11 U	8 U	10.49 U	17.74 U	11.7 U	13.79 U	6.31 U	6.34 U
Aroclor-1221	15.11 U	8 U	10.49 U	17.74 U	11.7 U	13.79 U	6.31 U	6.34 U
Aroclor-1232	15.11 U	8 U	10.49 U	17.74 U	11.7 U	13.79 U	6.31 U	6.34 U
Aroclor-1242	15.11 U	8 U	10.49 U	17.74 U	11.7 U	13.79 U	6.31 U	6.34 U
Aroclor-1248	15.11 U	8 U	10.49 U	17.74 U	11.7 U	13.79 U	6.31 U	6.34 U
Aroclor-1254	15.11 U	82.49	53.64	17.74 U	211.74	138.47	6.31 U	104.58
Aroclor-1260	15.11 U	8 U	10.49 U	17.74 U	11.7 U	13.79 U	6.31 U	6.34 U
Aroclor-1268	15.11 U	6.05 J	3.93 J	17.74 U	21.51	14.07	6.31 U	11.63
beta-BHC	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5002-0000-01-F 6/26/2001	RAB-LB-5002-0000-01-O 6/26/2001	RAB-LB-5002-0000-01-W 6/26/2001	RAB-LB-5003-0000-01-F 6/27/2001	RAB-LB-5003-0000-01-O 6/27/2001	RAB-LB-5003-0000-01-W 6/27/2001	RAB-LB-5004-0000-01-F 6/27/2001	RAB-LB-5004-0000-01-O 6/27/2001
delta-BHC	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
Dieldrin	1.21 U	1.24	0.81 J	1.42 U	0.94 U	1.11 U	0.51 U	0.82
Endosulfan I	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
Endosulfan II	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.1 U	0.51 U	0.51 U
Endosulfan Sulfate	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.1 U	0.51 U	0.51 U
Endrin	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
Endrin Aldehyde	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
Endrin Ketone	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
gamma-BHC	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
gamma-Chlordane	1.21 U	0.57 J	0.37 J	1.42 U	0.78 J	0.51 J	0.51 U	0.43 J
Heptachlor	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
Heptachlor Epoxide	1.21 U	0.35 J	0.23 J	1.42 U	0.94 U	1.1 U	0.51 U	0.29 J
Methoxychlor	1.21 U	0.64 U	0.84 U	1.42 U	0.94 U	1.11 U	0.51 U	0.51 U
Technical Chlordane	151.11 U	73.89 J	48.05 J	177.4 U	183.82	120.21 J	63.11 U	90.78
Toxaphene	30.22 U	16 U	20.97 U	35.48 U	23.4 U	27.56 U	12.62 U	12.68 U
Inorganics (mg/Kg)								
Aluminum	1.12 U	2.34	1.52	1.12 U	1.12 U	1.12 U	1.12 U	1.12 U
Antimony	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U	0.034 U
Arsenic	0.0555 U	0.106 U	0.0883 U	0.034 U	0.034 U	0.034 U	0.034 U	0.0815 U
Barium	0.0679 J	0.807 J	0.549 J	0.0162 U	0.902 J	0.59 J	0.0188 U	1.86
Beryllium	0.004 U	0.00187 J	0.00122 J	0.004 U	0.000975 J	0.000638 J	0.004 U	0.004 U
Cadmium	0.2 U	0.0184 J	0.012 J	0.00309 J	0.00894 J	0.00692 J	0.2 U	0.015 J
Chromium	0.0554 J	0.119 J	0.0968 J	0.0735 J	0.139 J	0.116 J	0.101 J	0.203 J
Cobalt	0.00645 J	0.0322 J	0.0232 J	0.00517 J	0.0289 J	0.0207 J	0.00416 J	0.0343 J
Copper	0.213	0.529	0.418	0.176	0.427	0.34	0.168	0.719
Iron	2.17 J	16.3 J	11.4 J	1.92 U	25.1 J	16.4 J	1.67 U	26.2
Lead	0.022 U	0.0195 J	0.0127 J	0.022 U	0.022 U	0.022 U	0.022 U	0.032
Manganese	0.75 J	13.5 J	9.04 J	0.113 J	4.43 J	2.94 J	0.0892 J	4.28 J
Mercury	0.157 J	0.108 J	0.125 J	0.286 J	0.211	0.237	0.315 J	0.236
Mercury (methyl)	0.163	0.1	0.122	0.28	0.219	0.24	0.379	0.172
Molybdenum	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.0244 J
Nickel	0.0122 J	0.0846 J	0.0593 J	0.32 U	0.0667 J	0.0436 J	0.0453 J	0.0684 J
Selenium	0.151 J	0.254 J	0.218 J	0.131 J	0.222 J	0.191 J	0.127 J	0.448 U
Silver	0.06 U	0.0152 J	0.00988 J	0.00417 J	0.00624 J	0.00552 J	0.0635 J	0.06 U
Thallium	0.0029 J	0.00401 J	0.00362 J	0.00195 J	0.00478 J	0.0038 J	0.00272 J	0.0161 J
Vanadium	0.179 UJ	0.00532 J	0.00346 J	0.00685 J	0.0117 J	0.01 J	0.00383 J	0.000448 J
Zinc	8.81	22.4	17.6	6.79	19	14.8	5.43	24.9 U

US EPA ARCHIVE DOCUMENT

Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5002-0000-01-F 6/26/2001	RAB-LB-5002-0000-01-O 6/26/2001	RAB-LB-5002-0000-01-W 6/26/2001	RAB-LB-5003-0000-01-F 6/27/2001	RAB-LB-5003-0000-01-O 6/27/2001	RAB-LB-5003-0000-01-W 6/27/2001	RAB-LB-5004-0000-01-F 6/27/2001	RAB-LB-5004-0000-01-O 6/27/2001
Dioxins/Furans (ug/Kg)								
HCX	0.08031 UJ	0.01906 J	0.01239 J	0.03982 UJ	0.05958 UJ	0.05274 UJ	0.08059 UJ	0.02013 UJ
TCX	R	R	R	R	R	R	R	R
2,3,7,8-TCDD	0.00087 U	0.02338	0.0152	0.00053 UJ	0.00174	0.00114	0.00191 J	0.00059 U
1,2,3,7,8-PeCDD	0.00171 U	0.00025 U	0.00076 U	0.00138 U	0.00014 U	0.00057 U	0.00033 U	0.00019 U
1,2,3,4,7,8-HxCDD	0.00057 U	0.00014 U	0.00029 U	0.00037 U	0.00031 U	0.00033 U	0.00037 U	0.00015 U
1,2,3,6,7,8-HxCDD	0.00057 U	0.00007 U	0.00024 U	0.00013 U	0.00032 U	0.00025 U	0.00204 J	0.00015 U
1,2,3,7,8,9-HxCDD	0.00054 U	0.00004 U	0.00021 U	0.00035 U	0.0003 U	0.00032 U	0.00051 U	0.00014 U
1,2,3,4,6,7,8-HpCDD	0.00044 U	0.00017 U	0.00026 U	0.00031 U	0.00255 J	0.00167 J	0.00342 J	0.00009 U
OCDD	0.00334 U	0.00088 U	0.00174 U	0.00234 U	0.06842	0.04474	0.00232 U	0.0003 U
2,3,7,8-TCDF	0.00092 U	0.00032 U	0.00053 U	0.00019 UJ	0.00044 UJ	0.00029 J	0.00101 J	0.00008 U
1,2,3,7,8-PeCDF	0.00082 U	0.0002 U	0.00042 U	0.00043 U	0.00044 U	0.00044 U	0.00056 U	0.0002 U
2,3,4,7,8-PeCDF	0.00253 U	0.00019 U	0.00101 U	0.00044 U	0.00364 U	0.00253 U	0.00098 U	0.00019 U
1,2,3,4,7,8-HxCDF	0.00047 U	0.00007 U	0.00021 U	0.00016 U	0.00056 U	0.00042 U	0.00026 U	0.00009 U
1,2,3,6,7,8-HxCDF	0.00044 U	0.00007 U	0.0002 U	0.00018 U	0.00013 U	0.00015 U	0.00026 U	0.00009 U
2,3,4,6,7,8-HxCDF	0.00046 U	0.00008 U	0.00021 U	0.0002 U	0.00027 U	0.00025 U	0.00032 U	0.0001 U
1,2,3,7,8,9-HxCDF	0.00052 U	0.00009 U	0.00024 U	0.00023 U	0.00032 U	0.00029 U	0.00029 U	0.00011 U
1,2,3,4,6,7,8-HpCDF	0.00028 U	0.00013 U	0.00018 U	0.00012 U	0.00062 U	0.00045 U	0.00035 U	0.00011 U
1,2,3,4,7,8,9-HpCDF	0.00036 U	0.00015 U	0.00022 U	0.00019 U	0.00036 U	0.0003 U	0.00037 U	0.00012 U
OCDF	0.00055 U	0.00015 U	0.00029 U	0.00041 U	0.00162 U	0.0012 U	0.00276 U	0.00007 U
Total TCDD	0.00087 UJ	0.02338 J	0.0152 J	0.00056 UJ	0.00174 J	0.00114 J	0.00195 J	0.00059 UJ
Total PeCDD	0.00171 UJ	0.00051 UJ	0.00093 UJ	0.00138 UJ	0.00014 UJ	0.00057 UJ	0.00033 UJ	0.00005 UJ
Total HxCDD	0.00056 UJ	0.00011 UJ	0.00027 UJ	0.00013 UJ	0.00031 UJ	0.00025 UJ	0.00737 UJ	0.00015 UJ
Total HpCDD	0.00044 UJ	0.00027 UJ	0.00033 UJ	0.00055 UJ	0.00428 UJ	0.00299 UJ	0.00556 UJ	0.00009 UJ
Total TCDF	0.00092 UJ	0.00032 UJ	0.00053 UJ	0.00019 UJ	0.00044 UJ	0.00035 UJ	0.00101 UJ	0.00011 UJ
Total PeCDF	0.00151 UJ	0.00015 UJ	0.00063 UJ	0.00043 UJ	0.00204 UJ	0.00148 UJ	0.00075 UJ	0.0002 UJ
Total HxCDF	0.00019 UJ	0.00067 UJ	0.0005 UJ	0.00016 UJ	0.00113 UJ	0.00079 UJ	0.0015 UJ	0.0001 UJ
Total HpCDF	0.00028 UJ	0.00005 UJ	0.00013 UJ	0.00042 UJ	0.00278 UJ	0.00196 UJ	0.00059 UJ	0.00011 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)		0.0234	0.0152		0.00177	0.00119	0.00225	

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5002-0000-01-F 6/26/2001	RAB-LB-5002-0000-01-O 6/26/2001	RAB-LB-5002-0000-01-W 6/26/2001	RAB-LB-5003-0000-01-F 6/27/2001	RAB-LB-5003-0000-01-O 6/27/2001	RAB-LB-5003-0000-01-W 6/27/2001	RAB-LB-5004-0000-01-F 6/27/2001	RAB-LB-5004-0000-01-O 6/27/2001
Other (%)								
Lipid_percent	0.741	4.12		0.842	2.05		0.569	2.14

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5004-0000-01-W 6/27/2001
Semivolatile Organics (ug/Kg)	
1,1'-Biphenyl	0.55
2-Methylnaphthalene	39.51
Acenaphthene	0.5
Acenaphthylene	1.32
Anthracene	0.31 J
Benzo(a)anthracene	0.63 U
Benzo(a)pyrene	0.63 U
Benzo(b)fluoranthene	0.63 U
Benzo(g,h,i)perylene	3.17 U
Benzo(k)fluoranthene	0.63 U
Chrysene	0.63 U
Dibenzo(a,h)anthracene	0.63 U
Dibenzofuran	0.41
Fluoranthene	0.88
Fluorene	0.95
Indeno(1,2,3-cd)pyrene	0.63 U
Naphthalene	19.86
Phenanthrene	4.43
Pyrene	0.63 U
Total PAH	68.72 J
Pesticides/PCBs (ug/Kg)	
4,4'-DDD	2.84
4,4'-DDE	23.72 D
4,4'-DDT	1.66
Aldrin	0.51 U
alpha-BHC	0.51 U
alpha-Chlordane	0.95
Aroclor, Total	74.04
Aroclor-1016	6.33 U
Aroclor-1221	6.33 U
Aroclor-1232	6.33 U
Aroclor-1242	6.33 U
Aroclor-1248	6.33 U
Aroclor-1254	66.63
Aroclor-1260	6.33 U
Aroclor-1268	7.41
beta-BHC	0.51 U

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5004-0000-01-W 6/27/2001
delta-BHC	0.51 U
Dieldrin	0.52
Endosulfan I	0.51 U
Endosulfan II	0.51 U
Endosulfan Sulfate	0.51 U
Endrin	0.51 U
Endrin Aldehyde	0.51 U
Endrin Ketone	0.51 U
gamma-BHC	0.51 U
gamma-Chlordane	0.28 J
Heptachlor	0.51 U
Heptachlor Epoxide	0.19 J
Methoxychlor	0.51 U
Technical Chlordane	57.84 J
Toxaphene	12.66 U
Inorganics (mg/Kg)	
Aluminum	1.12 U
Antimony	0.034 U
Arsenic	0.0643 U
Barium	1.19
Beryllium	0.004 U
Cadmium	0.00956 J
Chromium	0.166 J
Cobalt	0.0234 J
Copper	0.519
Iron	16.7
Lead	0.0204
Manganese	2.76 J
Mercury	0.265
Mercury (methyl)	0.247
Molybdenum	0.0155 J
Nickel	0.06 J
Selenium	0.0461 U
Silver	0.023 U
Thallium	0.0112 J
Vanadium	0.00168 J
Zinc	1.97 U

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5004-0000-01-W 6/27/2001
Dioxins/Furans (ug/Kg)	
HCX	0.04207 UJ
TCX	R
2,3,7,8-TCDD	0.00069 J
1,2,3,7,8-PeCDD	0.00024 UJ
1,2,3,4,7,8-HxCDD	0.00023 UJ
1,2,3,6,7,8-HxCDD	0.00074 J
1,2,3,7,8,9-HxCDD	0.00027 UJ
1,2,3,4,6,7,8-HpCDD	0.00124 J
OCDD	0.00103 UJ
2,3,7,8-TCDF	0.00037 J
1,2,3,7,8-PeCDF	0.00033 UJ
2,3,4,7,8-PeCDF	0.00048 UJ
1,2,3,4,7,8-HxCDF	0.00015 UJ
1,2,3,6,7,8-HxCDF	0.00015 UJ
2,3,4,6,7,8-HxCDF	0.00018 UJ
1,2,3,7,8,9-HxCDF	0.00018 UJ
1,2,3,4,6,7,8-HpCDF	0.0002 UJ
1,2,3,4,7,8,9-HpCDF	0.00021 UJ
OCDF	0.00105 UJ
Total TCDD	0.00071 J
Total PeCDD	0.00015 UJ
Total HxCDD	0.00277 UJ
Total HpCDD	0.00208 UJ
Total TCDF	0.00044 UJ
Total PeCDF	0.0004 UJ
Total HxCDF	0.00061 UJ
Total HpCDF	0.00028 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.000816

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Table A-24
Summary Statistics and Analytical Results for Largemouth Bass - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	RAB-LB-5004-0000-01-W 6/27/2001
Other (%)	
Lipid_percent	

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Samples ending with:
F - Fillet
O - Offal
W - whole body

US EPA ARCHIVE DOCUMENT

Table A-25
Summary Statistics and Analytical Results for Crayfish - Upstream

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-CF-5001-0000-01 7/20/2001	GMP-CF-5002-0000-01 7/20/2001	RWR-CF-5003-0000-01 7/20/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
4,4'-DDE	4	4			3.17	7.05	4.33	7.05	3.78	3.33
4,4'-DDT	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Aldrin	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
alpha-BHC	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
alpha-Chlordane	3	4	1.53	1.53	0.06	0.28	0.31	1.53 U	0.28 J	0.12 J
Aroclor, Total	4	4			28.49	56.47	43.95	28.49 J	37.93 J	56.47 J
Aroclor-1016	0	4	9.5	19.08			5.95	19.08 U	9.52 U	9.5 U
Aroclor-1221	0	4	9.5	19.08			5.95	19.08 U	9.52 U	9.5 U
Aroclor-1232	0	4	9.5	19.08			5.95	19.08 U	9.52 U	9.5 U
Aroclor-1242	0	4	9.5	19.08			5.95	19.08 U	9.52 U	9.5 U
Aroclor-1248	0	4	9.5	19.08			5.95	19.08 U	9.52 U	9.5 U
Aroclor-1254	4	4			23.28	51.42	37.74	23.28	28.94	51.42
Aroclor-1260	0	4	9.5	19.08			5.95	19.08 U	9.52 U	9.5 U
Aroclor-1268	4	4			5.04	8.99	6.21	5.21 J	8.99 J	5.04 J
beta-BHC	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
delta-BHC	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Dieldrin	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Endosulfan I	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Endosulfan II	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Endosulfan Sulfate	1	4	0.76	1.53	0.53	0.53	0.51	1.53 U	0.53 J	0.76 U
Endrin	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Endrin Aldehyde	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Endrin Ketone	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
gamma-BHC	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
gamma-Chlordane	1	4	0.76	1.53	0.09	0.09	0.40	1.53 U	0.09 J	0.76 U
Heptachlor	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Heptachlor Epoxide	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Methoxychlor	0	4	0.76	1.53			0.48	1.53 U	0.76 U	0.76 U
Technical Chlordane	4	4			15.93	22.41	18.27	22.41 J	18.4 J	16.34 J
Toxaphene	0	4	19	38.16			11.91	38.16 U	19.03 U	19 U
Inorganics (mg/Kg)										
Aluminum	1	4	1.1	1.1	1.95	1.95	0.900	1.1 U	1.1 U	1.95 J
Antimony	3	4	0.032	0.032	0.0101	0.0155	0.0139	0.032 U	0.0155 J	0.0141 J
Arsenic	0	4	0.149	0.223			0.0926	0.149 U	0.223 U	0.197 U
Barium	4	4			21.5	28.9	25.5	28.9 J	26.6 J	25.1 J

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Table A-25
Summary Statistics and Analytical Results for Crayfish - Upstream

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-CF-5001-0000-01 7/20/2001	GMP-CF-5002-0000-01 7/20/2001	RWR-CF-5003-0000-01 7/20/2001
Beryllium	0	4	0.004	0.00433			0.00204	0.004 U	0.004 U	0.00433 U
Cadmium	4	4			0.048	0.117	0.0859	0.117 J	0.048 J	0.109 J
Chromium	3	4	0.252	0.252	0.179	0.368	0.224	0.252 U	0.221 J	0.368 J
Cobalt	4	4			0.166	0.308	0.240	0.166 J	0.209 J	0.278 J
Copper	4	4			23.7	29.7	26.8	24.2	29.7	29.4
Iron	4	4			42.3	158	79.6	42.3 J	158 J	73.2 J
Lead	4	4			0.226	0.673	0.519	0.226 J	0.646 J	0.673 J
Manganese	4	4			99.3	146	116	111	146	99.3
Mercury	4	4			0.0166	0.027	0.0224	0.0166	0.0203	0.027
Mercury (methyl)	4	4			0.0177	0.0286	0.0223	0.0177	0.0186	0.0286
Molybdenum	4	4			0.0471	0.247	0.141	0.0471 J	0.0864 J	0.247 J
Nickel	4	4			0.226	0.374	0.282	0.226 J	0.283 J	0.374
Selenium	4	4			0.102	0.139	0.125	0.136 J	0.139 J	0.121 J
Silver	4	4			0.144	0.31	0.215	0.161	0.245	0.31
Thallium	4	4			0.00766	0.0138	0.00988	0.0138 J	0.00804 J	0.01 J
Vanadium	4	4			0.0739	0.278	0.166	0.0739 J	0.169 J	0.278 J
Zinc	4	4			15.9	28.1	22.6	24.4	28.1	21.8
Dioxins/Furans (ug/Kg)										
HCX	1	4	0.01981	0.06247	0.02435	0.02435	0.01887	0.06247 U	0.02435 B	0.01994 U
TCX	0	4	0.00248	0.00781			0.00191	0.00781 U	0.00248 U	0.00249 U
2,3,7,8-TCDD	2	4	0.0005	0.00156	0.00034	0.00041	0.00045	0.00156 U	0.00034 J	0.00041 J
1,2,3,7,8-PeCDD	2	4	0.00248	0.00248	0.00019	0.00037	0.00076	0.00037 J	0.00248 U	0.00019 J
1,2,3,4,7,8-HxCDD	1	4	0.00248	0.00781	0.0002	0.0002	0.00165	0.00781 U	0.0002 J	0.00249 U
1,2,3,6,7,8-HxCDD	2	4	0.00248	0.00781	0.00012	0.00032	0.00140	0.00781 U	0.00032 J	0.00012 J
1,2,3,7,8,9-HxCDD	1	4	0.00248	0.00781	0.00022	0.00022	0.00165	0.00781 U	0.00022 J	0.00249 U
1,2,3,4,6,7,8-HpCDD	3	4	0.00781	0.00781	0.00083	0.00163	0.00197	0.00781 U	0.00153 J	0.00083 J
OCDD	2	4	0.00858	0.01501	0.00254	0.00425	0.00465	0.00254 J	0.00858 U	0.00425 J
2,3,7,8-TCDF	4	4			0.00053	0.00077	0.00065	0.00063 JE	0.00077 #	0.00053 #
1,2,3,7,8-PeCDF	1	4	0.00248	0.00781	0.00015	0.00015	0.00163	0.00781 U	0.00248 U	0.00015 J
2,3,4,7,8-PeCDF	2	4	0.00248	0.00781	0.00019	0.00021	0.00139	0.00781 U	0.00021 J	0.00019 J
1,2,3,4,7,8-HxCDF	3	4	0.00248	0.00248	0.00022	0.00028	0.00050	0.00028 J	0.00022 J	0.00026 J
1,2,3,6,7,8-HxCDF	1	4	0.00248	0.00781	0.00015	0.00015	0.00164	0.00781 U	0.00015 J	0.00249 U
2,3,4,6,7,8-HxCDF	1	4	0.00248	0.00781	0.00009	0.00009	0.00162	0.00781 U	0.00248 U	0.00009 J
1,2,3,7,8,9-HxCDF	0	4	0.00248	0.00781			0.00191	0.00781 U	0.00248 U	0.00249 U
1,2,3,4,6,7,8-HpCDF	3	4	0.00781	0.00781	0.00046	0.0008	0.00143	0.00781 U	0.0008 J	0.00046 J
1,2,3,4,7,8,9-HpCDF	1	4	0.00248	0.00781	0.00066	0.00066	0.00176	0.00781 U	0.00066 J	0.00249 U
OCDF	3	4	0.00495	0.00495	0.00036	0.00293	0.00156	0.00036 J	0.00293 J	0.00049 J

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Table A-25
Summary Statistics and Analytical Results for Crayfish - Upstream

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-CF-5001-0000-01 7/20/2001	GMP-CF-5002-0000-01 7/20/2001	RWR-CF-5003-0000-01 7/20/2001
Total TCDD	3	4	0.00156	0.00156	0.00065	0.00111	0.00086	0.00156 U	0.00111 J	0.0009 J
Total PeCDD	2	4	0.00248	0.00248	0.00019	0.00037	0.00076	0.00037 J	0.00248 U	0.00019 J
Total HxCDD	2	4	0.00248	0.00781	0.00034	0.00143	0.00173	0.00781 U	0.00143 J	0.00034 J
Total HpCDD	2	4	0.00294	0.00781	0.00148	0.00238	0.00231	0.00781 U	0.00238 J	0.00148 J
Total TCDF	4	4			0.00066	0.00211	0.00120	0.00067 J	0.00211 J	0.00136 J
Total PeCDF	4	4			0.00289	0.00542	0.00415	0.00289 J	0.00513 J	0.00542 J
Total HxCDF	3	4	0.00248	0.00248	0.00129	0.00217	0.00169	0.00129 J	0.00217 J	0.00207 J
Total HpCDF	4	4			0.0002	0.00166	0.00093	0.0002 J	0.00166 J	0.00071 J
Toxicity Equivalency (Dioxins, Furans, HCX)	4	4			0.0000878	0.000816	0.000508	0.000461	0.000668	0.000816
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	1	1			0.00733	0.00733	0.00733	0.00733 J		
4-Chlorobiphenyl (3)	1	1			0.00806	0.00806	0.00806	0.00806 J		
2,2'-Dichlorobiphenyl (4)	0	1	0.16548	0.16548			0.08274	0.16548 U		
2,3-Dichlorobiphenyl (5)	0	1	0.01655	0.01655			0.00828	0.01655 U		
2,3'-Dichlorobiphenyl (6)	0	1	0.01655	0.01655			0.00828	0.01655 U		
2,4-Dichlorobiphenyl (7)	0	1	0.01655	0.01655			0.00828	0.01655 U		
2,4'-Dichlorobiphenyl (8)	0	1	0.16548	0.16548			0.08274	0.16548 U		
2,5-Dichlorobiphenyl (9)	0	1	0.01655	0.01655			0.00828	0.01655 U		
2,6-Dichlorobiphenyl (10)	0	1	0.01655	0.01655			0.00828	0.01655 U		
3,4-Dichlorobiphenyl (12)	0	1	0.0331	0.0331			0.01655	0.0331 UC		
2,2',3'-Trichlorobiphenyl (16)	1	1			0.0075	0.0075	0.00750	0.0075 JC		
2,2',4-Trichlorobiphenyl (17)	1	1			0.0093	0.0093	0.00930	0.0093 J		
2,2',5-Trichlorobiphenyl (18)	1	1			0.04298	0.04298	0.04298	0.04298 JC		
2,2',6-Trichlorobiphenyl (19)	1	1			0.00187	0.00187	0.00187	0.00187 J		
2,3,3'-Trichlorobiphenyl (20)	1	1			0.16052	0.16052	0.16052	0.16052 JC		
2,3,4'-Trichlorobiphenyl (22)	1	1			0.0109	0.0109	0.01090	0.0109 J		
2,3',4-Trichlorobiphenyl (25)	1	1			0.00355	0.00355	0.00355	0.00355 J		
2,3',5-Trichlorobiphenyl (26)	1	1			0.01612	0.01612	0.01612	0.01612 JC		
2,4',5-Trichlorobiphenyl (31)	1	1			0.08358	0.08358	0.08358	0.08358 J		
2,4',6-Trichlorobiphenyl (32)	1	1			0.00486	0.00486	0.00486	0.00486 J		
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			0.0396	0.0396	0.03960	0.0396 JC		
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			0.01637	0.01637	0.01637	0.01637 J		
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			1.0125	1.0125	1.01250	1.0125 C		
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			0.28323	0.28323	0.28323	0.28323 C		
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.00576	0.00576	0.00576	0.00576 JC		
2,2',3,6'-Tetrachlorobiphenyl (46)	1	1			0.00095	0.00095	0.00095	0.00095 J		
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			0.01349	0.01349	0.01349	0.01349 J		

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Table A-25
Summary Statistics and Analytical Results for Crayfish - Upstream

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-CF-5001-0000-01 7/20/2001	GMP-CF-5002-0000-01 7/20/2001	RWR-CF-5003-0000-01 7/20/2001
2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			0.18244	0.18244	0.18244	0.18244 C		
2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.0051	0.0051	0.00510	0.0051 JC		
2,3,3',4'-Tetrachlorobiphenyl (56)	0	1	0.06875	0.06875			0.03438	0.06875 U		
2,3,3',6-Tetrachlorobiphenyl (59)	1	1			0.02376	0.02376	0.02376	0.02376 JC		
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			0.09041	0.09041	0.09041	0.09041 J		
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			0.63692	0.63692	0.63692	0.63692 C		
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.02308	0.02308	0.02308	0.02308 J		
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			0.0329	0.0329	0.03290	0.0329 J		
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			0.48393	0.48393	0.48393	0.48393		
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.03045	0.03045	0.03045	0.03045 J		
3,4,4',5-Tetrachlorobiphenyl (81)	1	1			0.00206	0.00206	0.00206	0.00206 J		
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			0.01953	0.01953	0.01953	0.01953 J		
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			0.80127	0.80127	0.80127	0.80127 C		
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			0.07388	0.07388	0.07388	0.07388 J		
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			0.20475	0.20475	0.20475	0.20475 C		
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			0.56136	0.56136	0.56136	0.56136 C		
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			0.09086	0.09086	0.09086	0.09086 JC		
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.001	0.001	0.00100	0.001 J		
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			1.51572	1.51572	1.51572	1.51572 C		
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			0.24517	0.24517	0.24517	0.24517		
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			0.02112	0.02112	0.02112	0.02112 JC		
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			0.43993	0.43993	0.43993	0.43993		
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			0.43882	0.43882	0.43882	0.43882		
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			0.10698	0.10698	0.10698	0.10698 JC		
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.05082	0.05082	0.05082	0.05082 JC		
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			0.36368	0.36368	0.36368	0.36368 C		
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			0.02395	0.02395	0.02395	0.02395 J		
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			1.20876	1.20876	1.20876	1.20876		
3,3',4,4',5-Pentachlorobiphenyl (126)	1	1			0.0044	0.0044	0.00440	0.0044 J		
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			0.20842	0.20842	0.20842	0.20842 C		
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			1.75348	1.75348	1.75348	1.75346 C		
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			0.09808	0.09808	0.09808	0.09808 J		
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.00955	0.00955	0.00955	0.00955 J		
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			0.1684	0.1684	0.16840	0.1684		
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1	1			0.0445	0.0445	0.04450	0.0445 JC		
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			0.34152	0.34152	0.34152	0.34152 C		
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1	1			0.07299	0.07299	0.07299	0.07299		

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-CF-5001-0000-01 7/20/2001	GMP-CF-5002-0000-01 7/20/2001	RWR-CF-5003-0000-01 7/20/2001
2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			0.19762	0.19762	0.19762	0.19762 JC		
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			0.28627	0.28627	0.28627	0.28627		
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			0.0525	0.0525	0.05250	0.0525 J		
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			0.3106	0.3106	0.31060	0.3106 JC		
2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			1.06372	1.06372	1.06372	1.06372 C		
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			1.7202	1.7202	1.72020	1.7202 C		
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			0.15888	0.15888	0.15888	0.15888 JC		
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			0.12693	0.12693	0.12693	0.12693		
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			0.06477	0.06477	0.06477	0.06477 J		
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.05206	0.05206	0.05206	0.05206 J		
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			0.24568	0.24568	0.24568	0.24568		
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			0.05636	0.05636	0.05636	0.05636 JC		
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			0.0988	0.0988	0.09880	0.0988 J		
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			0.33243	0.33243	0.33243	0.33243 C		
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	1	1			0.01454	0.01454	0.01454	0.01454 J		
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.02732	0.02732	0.02732	0.02732 J		
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			0.2244	0.2244	0.22440	0.2244		
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			0.18849	0.18849	0.18849	0.18849		
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			0.96078	0.96078	0.96078	0.96078 C		
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	1	1			0.00689	0.00689	0.00689	0.00689 J		
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.00386	0.00386	0.00386	0.00386 J		
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			0.98205	0.98205	0.98205	0.98205		
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.01429	0.01429	0.01429	0.01429 J		
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			0.06009	0.06009	0.06009	0.06009 J		
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.01282	0.01282	0.01282	0.01282 J		
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			0.11675	0.11675	0.11675	0.11675 J		
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			0.04329	0.04329	0.04329	0.04329 J		
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			0.12152	0.12152	0.12152	0.12152 J		
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	1	1			0.04248	0.04248	0.04248	0.04248 JC		
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			0.99326	0.99326	0.99326	0.99326 C		
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)	1	1			0.99326	0.99326	0.99326	0.99326 J		
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.07799	0.07799	0.07799	0.07799 J		
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			0.36264	0.36264	0.36264	0.36264 J		
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	1	1			0.0115	0.0115	0.01150	0.0115 J		
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			0.4523	0.4523	0.45230	0.4523		
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.05769	0.05769	0.05769	0.05769 J		
Decachlorobiphenyl (209)	0	1	0.16548	0.16548			0.08274	0.16548 U		
PCB Congeners, Total	1	1			21.03558	21.03558	21.03558	21.03558		
Toxicity Equivalency (PCB)	1	1			0.00122	0.00122	0.00122	0.00122		

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-CF-5001-0000-01 7/20/2001	GMP-CF-5002-0000-01 7/20/2001	RWR-CF-5003-0000-01 7/20/2001
Other (%)										
Lipid_percent	5	5			2.49	3.77	2.93	3.77	2.66	2.49

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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PARAMETER	RWR-CF-5004-0000-01 7/20/2001 DUPLICATE	RWR-CF-5004-0000-01 7/20/2001
Pesticides/PCBs (ug/Kg)		
4,4'-DDD		0.76 U
4,4'-DDE		3.17
4,4'-DDT		0.76 U
Aldrin		0.76 U
alpha-BHC		0.76 U
alpha-Chlordane		0.06 J
Arocior, Total		52.92 J
Arocior-1016		9.53 U
Arocior-1221		9.53 U
Arocior-1232		9.53 U
Arocior-1242		9.53 U
Arocior-1248		9.53 U
Arocior-1254		47.3
Arocior-1260		9.53 U
Arocior-1268		5.61 J
beta-BHC		0.76 U
delta-BHC		0.76 U
Dieldrin		0.76 U
Endosulfan I		0.76 U
Endosulfan II		0.76 U
Endosulfan Sulfate		0.76 U
Endrin		0.76 U
Endrin Aldehyde		0.76 U
Endrin Ketone		0.76 U
gamma-BHC		0.76 U
gamma-Chlordane		0.76 U
Heptachlor		0.76 U
Heptachlor Epoxide		0.76 U
Methoxychlor		0.76 U
Technical Chlordane		15.93 J
Toxaphene		19.06 U
Inorganics (mg/Kg)		
Aluminum		1.1 U
Antimony		0.0101 J
Arsenic		0.172 U
Barium		21.5 J

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PARAMETER	RWR-CF-5004-0000-01 7/20/2001 DUPLICATE	RWR-CF-5004-0000-01 7/20/2001
Beryllium		0.004 U
Cadmium		0.0695 J
Chromium		0.179 J
Cobalt		0.308 J
Copper		23.7
Iron		44.8 J
Lead		0.53 J
Manganese		109
Mercury		0.0256
Mercury (methyl)		0.0243
Molybdenum		0.182 J
Nickel		0.243 J
Selenium		0.102 J
Silver		0.144
Thallium		0.00766 J
Vanadium		0.143 J
Zinc		15.9
Dioxins/Furans (ug/Kg)		
HCX		0.01981 U
TCX		0.00248 U
2,3,7,8-TCDD		0.0005 U
1,2,3,7,8-PeCDD		0.00248 U
1,2,3,4,7,8-HxCDD		0.00248 U
1,2,3,6,7,8-HxCDD		0.00248 U
1,2,3,7,8,9-HxCDD		0.00248 U
1,2,3,4,6,7,8-HpCDD		0.00163 J
OCDD		0.01501 U
2,3,7,8-TCDF		0.00066 E
1,2,3,7,8-PeCDF		0.00248 U
2,3,4,7,8-PeCDF		0.00248 U
1,2,3,4,7,8-HxCDF		0.00248 U
1,2,3,6,7,8-HxCDF		0.00248 U
2,3,4,6,7,8-HxCDF		0.00248 U
1,2,3,7,8,9-HxCDF		0.00248 U
1,2,3,4,6,7,8-HpCDF		0.00055 J
1,2,3,4,7,8,9-HpCDF		0.00248 U
OCDF		0.00495 U

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PARAMETER	RWR-CF-5004-0000-01 7/20/2001 DUPLICATE	RWR-CF-5004-0000-01 7/20/2001
Total TCDD		0.00065 J
Total PeCDD		0.00248 U
Total HxCDD		0.00248 U
Total HpCDD		0.00294 UJ
Total TCDF		0.00066 J
Total PeCDF		0.00316 J
Total HxCDF		0.00248 U
Total HpCDF		0.00115 J
Toxicity Equivalency (Dioxins, Furans, HCX)		0.0000878
PCB Congeners (ug/Kg)		
2-Monochlorobiphenyl (1)		
4-Chlorobiphenyl (3)		
2,2'-Dichlorobiphenyl (4)		
2,3-Dichlorobiphenyl (5)		
2,3'-Dichlorobiphenyl (6)		
2,4-Dichlorobiphenyl (7)		
2,4'-Dichlorobiphenyl (8)		
2,5-Dichlorobiphenyl (9)		
2,6-Dichlorobiphenyl (10)		
3,4-Dichlorobiphenyl (12)		
2,2',3'-Trichlorobiphenyl (16)		
2,2',4-Trichlorobiphenyl (17)		
2,2',5-Trichlorobiphenyl (18)		
2,2',6-Trichlorobiphenyl (19)		
2,3,3'-Trichlorobiphenyl (20)		
2,3,4'-Trichlorobiphenyl (22)		
2,3',4-Trichlorobiphenyl (25)		
2,3',5-Trichlorobiphenyl (26)		
2,4',5-Trichlorobiphenyl (31)		
2,4',6-Trichlorobiphenyl (32)		
2,2',3,3'-Tetrachlorobiphenyl (40)		
2,2',3,4'-Tetrachlorobiphenyl (42)		
2,2',3,5-Tetrachlorobiphenyl (43)		
2,2',3,5'-Tetrachlorobiphenyl (44)		
2,2',3,6-Tetrachlorobiphenyl (45)		
2,2',3,6'-Tetrachlorobiphenyl (46)		
2,2',4,5-Tetrachlorobiphenyl (48)		

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PARAMETER	RWR-CF-5004-0000-01 7/20/2001 DUPLICATE	RWR-CF-5004-0000-01 7/20/2001
2,2',4,5'-Tetrachlorobiphenyl (49)		
2,2',4,6-Tetrachlorobiphenyl (50)		
2,3,3',4'-Tetrachlorobiphenyl (56)		
2,3,3',6-Tetrachlorobiphenyl (59)		
2,3,4,4'-Tetrachlorobiphenyl (60)		
2,3,4,5-Tetrachlorobiphenyl (61)		
2,3,4',5-Tetrachlorobiphenyl (63)		
2,3,4',6-Tetrachlorobiphenyl (64)		
2,3',4,4'-Tetrachlorobiphenyl (66)		
3,3',4,4'-Tetrachlorobiphenyl (77)		
3,4,4',5-Tetrachlorobiphenyl (81)		
2,2',3,3',4-Pentachlorobiphenyl (82)		
2,2',3,3',5-Pentachlorobiphenyl (83)		
2,2',3,3',6-Pentachlorobiphenyl (84)		
2,2',3,4,4'-Pentachlorobiphenyl (85)		
2,2',3,4,5-Pentachlorobiphenyl (86)		
2,2',3,4,6-Pentachlorobiphenyl (88)		
2,2',3,4,6'-Pentachlorobiphenyl (89)		
2,2',3,4',5-Pentachlorobiphenyl (90)		
2,2',3,5,5'-Pentachlorobiphenyl (92)		
2,2',3,5,6-Pentachlorobiphenyl (93)		
2,2',3,5',6-Pentachlorobiphenyl (95)		
2,3,3',4,4'-Pentachlorobiphenyl (105)		
2,3,3',4,5-Pentachlorobiphenyl (106)		
2,3,3',4',5'-Pentachlorobiphenyl (108)		
2,3,3',4',6-Pentachlorobiphenyl (110)		
2,3,4,4',5-Pentachlorobiphenyl (114)		
2,3',4,4',5-Pentachlorobiphenyl (118)		
3,3',4,4',5-Pentachlorobiphenyl (126)		
2,2',3,3',4,4'-Hexachlorobiphenyl (128)		
2,2',3,3',4,5-Hexachlorobiphenyl (129)		
2,2',3,3',4,5'-Hexachlorobiphenyl (130)		
2,2',3,3',4,6-Hexachlorobiphenyl (131)		
2,2',3,3',4,6'-Hexachlorobiphenyl (132)		
2,2',3,3',5,6-Hexachlorobiphenyl (134)		
2,2',3,3',5,6'-Hexachlorobiphenyl (135)		
2,2',3,3',6,6'-Hexachlorobiphenyl (136)		

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PARAMETER	RWR-CF-5004-0000-01 7/20/2001 DUPLICATE	RWR-CF-5004-0000-01 7/20/2001
2,2',3,4,4',5-Hexachlorobiphenyl (137)		
2,2',3,4,5,5'-Hexachlorobiphenyl (141)		
2,2',3,4,5',6-Hexachlorobiphenyl (144)		
2,2',3,4',5,5'-Hexachlorobiphenyl (146)		
2,2',3,4',5,6-Hexachlorobiphenyl (147)		
2,2',4,4',5,5'-Hexachlorobiphenyl (153)		
2,3,3',4,4',5-Hexachlorobiphenyl (156)		
2,3,3',4,4',6-Hexachlorobiphenyl (158)		
2,3',4,4',5,5'-Hexachlorobiphenyl (167)		
3,3',4,4',5,5'-Hexachlorobiphenyl (169)		
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)		
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)		
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)		
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)		
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)		
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)		
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)		
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)		
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)		
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)		
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)		
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)		
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)		
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)		
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)		
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)		
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)		
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)		
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)		
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)		
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)		
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)		
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)		
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)		
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl		
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl		
Decachlorobiphenyl (209)		
PCB Congeners, Total		
Toxicity Equivalency (PCB)		

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PARAMETER	RWR-CF-5004-0000-01 7/20/2001 DUPLICATE	RWR-CF-5004-0000-01 7/20/2001
Other (%)		
Lipid_percent	3.02	2.7

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

US EPA ARCHIVE DOCUMENT

Table A-26
Summary Statistics and Analytical Results for Crayfish - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	CMS-CF-4003-0000-01 7/20/2001	CMS-CF-4006-0000-01 7/20/2001	CMS-CF-4007-0000-01 7/20/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	2	3	0.76	0.76	0.24	0.49	0.37	0.76 U	0.49 J	0.24 J
4,4'-DDE	3	3			2.83	3.42	3.21	2.83	3.42	3.38
4,4'-DDT	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Aldrin	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
alpha-BHC	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
alpha-Chlordane	2	3	0.76	0.76	0.09	0.43	0.30	0.09 J	0.43 J	0.76 U
Aroclor, Total	3	3			40.73	108.73	75.89	40.73 J	108.73	78.2
Aroclor-1016	0	3	9.49	9.52			4.75	9.49 U	9.52 U	9.49 U
Aroclor-1221	0	3	9.49	9.52			4.75	9.49 U	9.52 U	9.49 U
Aroclor-1232	0	3	9.49	9.52			4.75	9.49 U	9.52 U	9.49 U
Aroclor-1242	0	3	9.49	9.52			4.75	9.49 U	9.52 U	9.49 U
Aroclor-1248	0	3	9.49	9.52			4.75	9.49 U	9.52 U	9.49 U
Aroclor-1254	3	3			35.96	101.12	69.91	35.96	101.12	72.66
Aroclor-1260	0	3	9.49	9.52			4.75	9.49 U	9.52 U	9.49 U
Aroclor-1268	3	3			4.76	7.61	5.97	4.76 J	7.61 J	5.54 J
beta-BHC	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
delta-BHC	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Dieldrin	1	3	0.76	0.76	0.65	0.65	0.47	0.76 U	0.65 J	0.76 U
Endosulfan I	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Endosulfan II	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Endosulfan Sulfate	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Endrin	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Endrin Aldehyde	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Endrin Ketone	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
gamma-BHC	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
gamma-Chlordane	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Heptachlor	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Heptachlor Epoxide	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Methoxychlor	0	3	0.76	0.76			0.38	0.76 U	0.76 U	0.76 U
Technical Chlordane	3	3			13.26	19.68	16.46	13.26 J	19.68 J	16.45 J
Toxaphene	0	3	18.97	19.03			9.50	18.98 U	19.03 U	18.97 U
Inorganics (mg/Kg)										
Aluminum	2	3	1.1	1.1	1.52	2.63	1.57	1.1 U	1.52 J	2.63 J
Antimony	2	3	0.032	0.032	0.017	0.0171	0.0167	0.032 U	0.0171 J	0.017 J
Arsenic	0	3	0.202	0.243			0.114	0.202 U	0.239 U	0.243 U
Barium	3	3			17.8	24.2	20.9	24.2 J	20.8 J	17.8 J
Beryllium	0	3	0.004	0.00555			0.00241	0.004 U	0.00491 U	0.00555 U
Cadmium	3	3			0.0802	0.101	0.0915	0.0934 J	0.0802 J	0.101 J
Chromium	3	3			0.176	0.399	0.282	0.176 J	0.399 J	0.271 J

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Table A-26
Summary Statistics and Analytical Results for Crayfish - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	CMS-CF-4003-0000-01 7/20/2001	CMS-CF-4006-0000-01 7/20/2001	CMS-CF-4007-0000-01 7/20/2001
Cobalt	3	3			0.147	0.194	0.174	0.194 J	0.147 J	0.18 J
Copper	3	3			27.9	34.7	30.3	27.9	28.2	34.7
Iron	3	3			30.8	90.4	62.7	30.8 J	90.4 J	66.8 J
Lead	3	3			0.29	0.814	0.589	0.29 J	0.814 J	0.663 J
Manganese	3	3			52.7	90.8	71.7	90.8	52.7	71.5
Mercury	3	3			0.0178	0.0302	0.0246	0.0259	0.0178	0.0302
Mercury (methyl)	3	3			0.0144	0.0271	0.0225	0.0261	0.0144	0.0271
Molybdenum	3	3			0.105	0.142	0.128	0.105 J	0.142 J	0.136 J
Nickel	3	3			0.259	0.366	0.317	0.259 J	0.326	0.366
Selenium	3	3			0.112	0.141	0.126	0.112 J	0.125 J	0.141 J
Silver	3	3			0.185	0.246	0.209	0.185	0.196	0.246
Thallium	2	3	0.021	0.021	0.00731	0.00885	0.00889	0.00885 J	0.021 U	0.00731 J
Vanadium	3	3			0.182	0.257	0.219	0.182 J	0.219 J	0.257 J
Zinc	3	3			20	22.2	20.9	20	20.6	22.2
Dioxins/Furans (ug/Kg)										
HCX	3	3			0.01985	0.24646	0.14336	0.01985 JB	0.24646 J	0.16378 B
TCX	0	3	0.00248	0.0025			0.00125	0.00248 U	0.0025 U	0.00249 U
2,3,7,8-TCDD	3	3			0.04302	0.26117	0.17728	0.04302	0.26117	0.22766
1,2,3,7,8-PeCDD	0	3	0.00248	0.0025			0.00125	0.00248 U	0.0025 U	0.00249 U
1,2,3,4,7,8-HxCDD	1	3	0.00248	0.00249	0.00011	0.00011	0.00087	0.00248 U	0.00011 J	0.00249 U
1,2,3,6,7,8-HxCDD	2	3	0.00248	0.00248	0.00018	0.00022	0.00055	0.00248 U	0.00022 J	0.00018 J
1,2,3,7,8,9-HxCDD	2	3	0.00248	0.00248	0.00014	0.00023	0.00054	0.00248 U	0.00023 J	0.00014 J
1,2,3,4,6,7,8-HpCDD	3	3			0.00087	0.00126	0.00106	0.00087 J	0.00126 J	0.00106 J
OCDD	0	3	0.00577	0.00724			0.00320	0.00577 U	0.00724 U	0.00617 U
2,3,7,8-TCDF	3	3			0.00043	0.00083	0.00061	0.00043 J	0.00083 E	0.00058 E
1,2,3,7,8-PeCDF	0	3	0.00248	0.0025			0.00125	0.00248 U	0.0025 U	0.00249 U
2,3,4,7,8-PeCDF	0	3	0.00248	0.0025			0.00125	0.00248 U	0.0025 U	0.00249 U
1,2,3,4,7,8-HxCDF	3	3			0.00012	0.00032	0.00021	0.00012 J	0.00032 J	0.0002 J
1,2,3,6,7,8-HxCDF	2	3	0.00248	0.00248	0.00011	0.00021	0.00052	0.00248 U	0.00021 J	0.00011 J
2,3,4,6,7,8-HxCDF	2	3	0.00248	0.00248	0.0001	0.00016	0.00050	0.00248 U	0.00016 J	0.0001 J
1,2,3,7,8,9-HxCDF	0	3	0.00248	0.0025			0.00125	0.00248 U	0.0025 U	0.00249 U
1,2,3,4,6,7,8-HpCDF	3	3			0.00031	0.00065	0.00053	0.00031 J	0.00065 J	0.00064 J
1,2,3,4,7,8,9-HpCDF	1	3	0.00248	0.00249	0.00006	0.00006	0.00085	0.00248 U	0.00006 J	0.00249 U
OCDF	3	3			0.00062	0.00074	0.00067	0.00062 J	0.00066 J	0.00074 J
Total TCDD	3	3			0.04302	0.26117	0.17728	0.04302 J	0.26117 J	0.22766 J
Total PeCDD	0	3	0.00248	0.0025			0.00125	0.00248 U	0.0025 U	0.00249 U
Total HxCDD	2	3	0.00248	0.00248	0.00082	0.00096	0.00101	0.00248 U	0.00096 J	0.00082 J
Total HpCDD	3	3			0.00147	0.00232	0.00195	0.00147 J	0.00232 J	0.00206 J
Total TCDF	3	3			0.00073	0.00188	0.00146	0.00073 J	0.00188 J	0.00176
Total PeCDF	3	3			0.00334	0.00832	0.00625	0.00334 J	0.00832 J	0.00709 J

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Table A-26
Summary Statistics and Analytical Results for Crayfish - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	CMS-CF-4003-0000-01 7/20/2001	CMS-CF-4006-0000-01 7/20/2001	CMS-CF-4007-0000-01 7/20/2001
Total HxCDF	1	3	0.00265	0.00326	0.00097	0.00097	0.00131	0.00097 J	0.00326 UJ	0.00265 UJ
Total HpCDF	3	3			0.00049	0.00108	0.00087	0.00049 J	0.00104 J	0.00108 J
Toxicity Equivalency (Dioxins, Furans, HCX)	3	3			0.0431	0.261	0.177	0.0431	0.261	0.228
Other (%)										
Lipid_percent	3	3			2.33	3.14	2.79	3.14	2.91	2.33

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Table A-27
Summary Statistics and Analytical Results for Crayfish - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-CF-4001-0000-01 7/20/2001	LPX-CF-4001-0000-01 7/20/2001 REPLICATE	LPX-CF-4002-0000-01 7/20/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	5	7	0.75	0.76	0.23	5.01	2.09	0.27 J	3.52	0.76 U
4,4'-DDE	4	7	1.87	2.25	2.81	5.01	2.74	3.52	2.25 U	2.81
4,4'-DDT	2	7	0.76	2.25	0.38	0.39	0.65	2.25 U	0.38 J	0.76 U
Aldrin	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
alpha-BHC	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
alpha-Chlordane	7	7			0.08	0.6	0.25	0.49 J	0.2 J	0.6 J
Aroclor, Total	7	7			32.22	131.83	91.75	108.42	131.83 J	32.22 J
Aroclor-1016	0	7	9.41	28.18			8.07	9.41 U	28.18 U	9.52 U
Aroclor-1221	0	7	9.41	28.18			8.07	9.41 U	28.18 U	9.52 U
Aroclor-1232	0	7	9.41	28.18			8.07	9.41 U	28.18 U	9.52 U
Aroclor-1242	0	7	9.41	28.18			8.07	9.41 U	28.18 U	9.52 U
Aroclor-1248	0	7	9.41	28.18			8.07	9.41 U	28.18 U	9.52 U
Aroclor-1254	7	7			29.7	122.68	85.59	100.7	122.01	29.7
Aroclor-1260	0	7	9.41	28.18			8.07	9.41 U	28.18 U	9.52 U
Aroclor-1268	7	7			2.52	9.82	6.16	7.72 J	9.82 J	2.52 J
beta-BHC	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
delta-BHC	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
Dieldrin	3	7	0.75	1.87	0.63	0.78	0.60	0.75 U	0.78 J	0.76 U
Endosulfan I	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
Endosulfan II	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
Endosulfan Sulfate	1	7	0.75	2.25	1.05	1.05	0.74	0.75 U	2.25 U	1.05
Endrin	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
Endrin Aldehyde	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
Endrin Ketone	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
gamma-BHC	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
gamma-Chlordane	3	7	0.75	1.89	0.15	0.55	0.52	0.15 J	0.33 J	0.55 J
Heptachlor	1	7	0.75	2.25	0.22	0.22	0.62	0.75 U	2.25 U	0.22 J
Heptachlor Epoxide	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
Methoxychlor	0	7	0.75	2.25			0.65	0.75 U	2.25 U	0.76 U
Technical Chlordane	7	7			16.5	32.36	25.57	27.44 J	32.36 J	27.5 J
Toxaphene	0	7	18.82	56.36			16.14	18.82 U	56.36 U	19.03 U
Inorganics (mg/Kg)										
Aluminum	0	4	1.1	1.1			0.550	1.1 U		1.1 U
Antimony	3	4	0.032	0.032	0.0108	0.0166	0.0146	0.0149 J		0.0108 J
Arsenic	0	4	0.217	0.308			0.127	0.308 U		0.238 U
Barium	4	4			25.8	30.5	28.1	26 J		30.1 J

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Table A-27
Summary Statistics and Analytical Results for Crayfish - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-CF-4001-0000-01 7/20/2001	LPX-CF-4001-0000-01 7/20/2001 REPLICATE	LPX-CF-4002-0000-01 7/20/2001
Beryllium	0	4	0.00375	0.00574			0.00219	0.00574 U		0.004 UJ
Cadmium	4	4			0.0511	0.164	0.0888	0.0749 J		0.0511 J
Chromium	3	4	0.252	0.252	0.23	0.346	0.245	0.346 J		0.277 J
Cobalt	4	4			0.2	0.35	0.262	0.254 J		0.2 J
Copper	4	4			22.2	33.2	30.0	33.2		22.2
Iron	4	4			77	181	122	181 J		104 J
Lead	4	4			0.646	1.16	0.859	0.912 J		0.646 J
Manganese	4	4			71.6	214	125	107		71.6
Mercury	4	4			0.00976	0.0259	0.0203	0.0235		0.00976
Mercury (methyl)	4	4			0.0083	0.0215	0.0153	0.0215		0.0083
Molybdenum	4	4			0.0633	0.198	0.124	0.144 J		0.0633 J
Nickel	4	4			0.426	0.584	0.485	0.426		0.444
Selenium	4	4			0.116	0.162	0.138	0.162 J		0.116 J
Silver	4	4			0.23	0.252	0.243	0.252		0.252
Thallium	3	4	0.021	0.021	0.00717	0.0113	0.00961	0.00947 J		0.021 U
Vanadium	4	4			0.23	0.361	0.270	0.255 J		0.23 J
Zinc	4	4			20.1	32.5	26.2	24.9		20.1
Dioxins/Furans (ug/Kg)										
HCX	3	4	0.08934	0.08934	0.01342	0.10449	0.05547	0.08934 UJ		0.01342 J
TCX	0	4	0.00247	0.005			0.00187	0.005 U		0.00496 U
2,3,7,8-TCDD	4	4			0.03062	0.15603	0.09950	0.15603		0.03062
1,2,3,7,8-PeCDD	0	4	0.00247	0.005			0.00187	0.005 U		0.00496 U
1,2,3,4,7,8-HxCDD	0	4	0.00247	0.005			0.00187	0.005 U		0.00496 U
1,2,3,6,7,8-HxCDD	2	4	0.00247	0.00496	0.00018	0.00022	0.00103	0.00022 J		0.00496 U
1,2,3,7,8,9-HxCDD	1	4	0.00247	0.00496	0.00019	0.00019	0.00129	0.00019 J		0.00496 U
1,2,3,4,6,7,8-HpCDD	4	4			0.00082	0.00286	0.00173	0.00173 J		0.00286 J
OCDD	1	4	0.00893	0.01975	0.00472	0.00472	0.00609	0.01056 U		0.01975 U
2,3,7,8-TCDF	3	4	0.00099	0.00099	0.00062	0.00085	0.00067	0.00085 J#		0.00099 U#
1,2,3,7,8-PeCDF	1	4	0.00247	0.005	0.00011	0.00011	0.00158	0.005 U		0.00496 U
2,3,4,7,8-PeCDF	1	4	0.00247	0.005	0.00015	0.00015	0.00159	0.005 U		0.00496 U
1,2,3,4,7,8-HxCDF	2	4	0.00247	0.00249	0.00026	0.00028	0.00076	0.00026 J		0.00028 J
1,2,3,6,7,8-HxCDF	2	4	0.00496	0.005	0.0001	0.00012	0.00130	0.005 U		0.00496 U
2,3,4,6,7,8-HxCDF	0	4	0.00247	0.005			0.00187	0.005 U		0.00496 U
1,2,3,7,8,9-HxCDF	0	4	0.00247	0.005			0.00187	0.005 U		0.00496 U
1,2,3,4,6,7,8-HpCDF	4	4			0.00042	0.00097	0.00068	0.00071 J		0.00097 J
1,2,3,4,7,8,9-HpCDF	0	4	0.00247	0.005			0.00187	0.005 U		0.00496 U
OCDF	3	4	0.00999	0.00999	0.00046	0.00221	0.00212	0.00999 U		0.00221 J

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Table A-27

Summary Statistics and Analytical Results for Crayfish - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-CF-4001-0000-01 7/20/2001	LPX-CF-4001-0000-01 7/20/2001 REPLICATE	LPX-CF-4002-0000-01 7/20/2001
Total TCDD	4	4			0.03062	0.15603	0.09950	0.15603 J		0.03062 J
Total PeCDD	1	4	0.00247	0.005	0.00025	0.00025	0.00162	0.005 U		0.00496 U
Total HxCDD	4	4			0.00043	0.00127	0.00078	0.00127 J		0.00088 J
Total HpCDD	2	4	0.00276	0.00619	0.00159	0.00344	0.00238	0.00344 J		0.00619 UJ
Total TCDF	4	4			0.00062	0.00294	0.00216	0.00294		0.00062 J
Total PeCDF	4	4			0.00521	0.00789	0.00630	0.00789 J		0.00541 J
Total HxCDF	4	4			0.00182	0.00264	0.00221	0.00264 J		0.00224 J
Total HpCDF	4	4			0.00065	0.0016	0.00114	0.00133 J		0.0016 J
Toxicity Equivalency (Dioxins, Furans, HCX)	4	4			0.0307	0.156	0.0996	0.156		0.0307
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	2	2			0.00672	0.00945	0.00809	0.00945 J		0.00672 J
4-Chlorobiphenyl (3)	2	2			0.00559	0.0095	0.00755	0.0095 J		0.00559 J
2,2'-Dichlorobiphenyl (4)	2	2			0.01641	0.01953	0.01797	0.01953 J		0.01641 J
2,3-Dichlorobiphenyl (5)	0	2	0.00992	0.00999			0.00498	0.00999 U		0.00992 U
2,3'-Dichlorobiphenyl (6)	1	2	0.00992	0.00992	0.035	0.035	0.01998	0.035		0.00992 U
2,4-Dichlorobiphenyl (7)	0	2	0.00992	0.00999			0.00498	0.00999 U		0.00992 U
2,4'-Dichlorobiphenyl (8)	1	2	0.09924	0.09924	0.02236	0.02236	0.03599	0.02236 J		0.09924 U
2,5-Dichlorobiphenyl (9)	0	2	0.00992	0.00999			0.00498	0.00999 U		0.00992 U
2,6-Dichlorobiphenyl (10)	0	2	0.00992	0.00999			0.00498	0.00999 U		0.00992 U
3,4-Dichlorobiphenyl (12)	1	2	0.01985	0.01985	0.0186	0.0186	0.01426	0.0186 JC		0.01985 UC
2,2',3'-Trichlorobiphenyl (16)	2	2			0.01227	0.02439	0.01833	0.02439 C		0.01227 JC
2,2',4-Trichlorobiphenyl (17)	2	2			0.00895	0.01882	0.01389	0.01882 J		0.00895 J
2,2',5-Trichlorobiphenyl (18)	2	2			0.12162	0.26612	0.19387	0.26612 C		0.12162 C
2,2',6-Trichlorobiphenyl (19)	2	2			0.00173	0.00248	0.00211	0.00248 J		0.00173 J
2,3,3'-Trichlorobiphenyl (20)	2	2			0.623	1.21212	0.91756	1.21212 C		0.623 C
2,3,4'-Trichlorobiphenyl (22)	1	2	0.03998	0.03998	0.0133	0.0133	0.01665	0.03998 U		0.0133 J
2,3',4-Trichlorobiphenyl (25)	2	2			0.0061	0.01566	0.01088	0.01566 J		0.0061 J
2,3',5-Trichlorobiphenyl (26)	2	2			0.0599	0.09704	0.07847	0.09704 C		0.0599 C
2,4',5-Trichlorobiphenyl (31)	2	2			0.28783	0.51939	0.40361	0.51939 J		0.28783 J
2,4',6-Trichlorobiphenyl (32)	2	2			0.00432	0.01037	0.00735	0.01037 J		0.00432 J
2,2',3,3'-Tetrachlorobiphenyl (40)	2	2			0.03771	0.08613	0.06192	0.08613 JC		0.03771 JC
2,2',3,4'-Tetrachlorobiphenyl (42)	2	2			0.01248	0.04427	0.02838	0.04427		0.01248 J
2,2',3,5-Tetrachlorobiphenyl (43)	2	2			1.76472	5.07309	3.41891	5.07309 C		1.76472 C
2,2',3,5'-Tetrachlorobiphenyl (44)	2	2			0.35757	1.01823	0.68790	1.01823 C		0.35757 C
2,2',3,6-Tetrachlorobiphenyl (45)	2	2			0.00674	0.01132	0.00903	0.01132 JC		0.00674 JC
2,2',3,6'-Tetrachlorobiphenyl (46)	2	2			0.00172	0.00293	0.00233	0.00293 J		0.00172 J
2,2',4,5-Tetrachlorobiphenyl (48)	2	2			0.01784	0.04943	0.03364	0.04943		0.01784 J

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-CF-4001-0000-01 7/20/2001	LPX-CF-4001-0000-01 7/20/2001 REPLICATE	LPX-CF-4002-0000-01 7/20/2001
2,2',4,5'-Tetrachlorobiphenyl (49)	2	2			0.17786	0.65324	0.41555	0.65324 C		0.17786 C
2,2',4,6-Tetrachlorobiphenyl (50)	2	2			0.00838	0.01346	0.01092	0.01346 JC		0.00838 JC
2,3,3',4'-Tetrachlorobiphenyl (56)	2	2			0.12129	0.30916	0.21523	0.30916		0.12129
2,3,3',6-Tetrachlorobiphenyl (59)	2	2			0.03099	0.07518	0.05309	0.07518 C		0.03099 JC
2,3,4,4'-Tetrachlorobiphenyl (60)	2	2			0.10881	0.26574	0.18728	0.26574		0.10881
2,3,4,5-Tetrachlorobiphenyl (61)	2	2			1.04332	2.79548	1.91940	2.79548 C		1.04332 C
2,3,4',5-Tetrachlorobiphenyl (63)	2	2			0.03849	0.12505	0.08177	0.12505		0.03849 J
2,3,4',6-Tetrachlorobiphenyl (64)	2	2			0.02176	0.07109	0.04643	0.07109		0.02176 J
2,3',4,4'-Tetrachlorobiphenyl (66)	2	2			1.14255	3.15646	2.14951	3.15646		1.14255
3,3',4,4'-Tetrachlorobiphenyl (77)	2	2			0.06221	0.18163	0.12192	0.18163		0.06221 J
3,4,4',5-Tetrachlorobiphenyl (81)	2	2			0.0029	0.00832	0.00561	0.00832 J		0.0029 J
2,2',3,3',4-Pentachlorobiphenyl (82)	1	2	0.09924	0.09924	0.05382	0.05382	0.05172	0.05382 J		0.09924 U
2,2',3,3',5-Pentachlorobiphenyl (83)	2	2			1.23462	4.97154	3.10308	4.97154 C		1.23462 C
2,2',3,3',6-Pentachlorobiphenyl (84)	2	2			0.07945	0.1916	0.13553	0.1916		0.07945 J
2,2',3,4,4'-Pentachlorobiphenyl (85)	2	2			0.32679	1.31604	0.82142	1.31604 C		0.32679 C
2,2',3,4,5-Pentachlorobiphenyl (86)	2	2			0.89358	3.36312	2.12835	3.36312 C		0.89358 C
2,2',3,4,6-Pentachlorobiphenyl (88)	2	2			0.1233	0.28084	0.20207	0.28084 C		0.1233 C
2,2',3,4,6'-Pentachlorobiphenyl (89)	2	2			0.00105	0.00212	0.00159	0.00212 J		0.00105 J
2,2',3,4',5-Pentachlorobiphenyl (90)	2	2			2.81607	9.55689	6.18648	9.55689 C		2.81607 C
2,2',3,5,5'-Pentachlorobiphenyl (92)	2	2			0.40588	1.3786	0.89224	1.3786		0.40588
2,2',3,5,6-Pentachlorobiphenyl (93)	2	2			0.00628	0.0188	0.01254	0.0188 JC		0.00628 JC
2,2',3,5',6-Pentachlorobiphenyl (95)	2	2			0.62107	2.06091	1.34099	2.06091		0.62107
2,3,3',4,4'-Pentachlorobiphenyl (105)	2	2			0.58519	2.1146	1.34990	2.1146		0.58519
2,3,3',4,5-Pentachlorobiphenyl (106)	2	2			0.18052	0.70357	0.44205	0.70357 C		0.18052 JC
2,3,3',4',5'-Pentachlorobiphenyl (108)	2	2			0.09218	0.38024	0.23621	0.38024 C		0.09218 JC
2,3,3',4',6-Pentachlorobiphenyl (110)	2	2			0.25294	1.03576	0.64435	1.03576 C		0.25294 C
2,3,4,4',5-Pentachlorobiphenyl (114)	2	2			0.0328	0.1249	0.07885	0.1249		0.0328 J
2,3',4,4',5-Pentachlorobiphenyl (118)	2	2			2.14668	7.93072	5.03870	7.93072		2.14668
3,3',4,4',5-Pentachlorobiphenyl (126)	2	2			0.00593	0.01753	0.01173	0.01753 J		0.00593 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	2	2			0.21412	0.93026	0.57219	0.93026 C		0.21412 C
2,2',3,3',4,5-Hexachlorobiphenyl (129)	2	2			2.25796	9.79792	6.02794	9.79792 C		2.25796 C
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	2	2			0.14878	0.66689	0.40784	0.66689		0.14878
2,2',3,3',4,6-Hexachlorobiphenyl (131)	2	2			0.01201	0.04825	0.03013	0.04825 J		0.01201 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	2	2			0.21373	0.75345	0.48359	0.75345		0.21373
2,2',3,3',5,6-Hexachlorobiphenyl (134)	2	2			0.07	0.321	0.19550	0.321 C		0.07 JC
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	2	2			0.24906	0.99612	0.62259	0.99612 C		0.24906 C
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	2	2			0.08141	0.25293	0.16717	0.25293		0.08141

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-CF-4001-0000-01 7/20/2001	LPX-CF-4001-0000-01 7/20/2001 REPLICATE	LPX-CF-4002-0000-01 7/20/2001
2,2',3,4,4',5-Hexachlorobiphenyl (137)	2	2			0.33436	1.3245	0.82943	1.3245 C		0.33436 C
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	2	2			0.36028	1.37725	0.86877	1.37725		0.36028
2,2',3,4,5',6-Hexachlorobiphenyl (144)	2	2			0.05067	0.21248	0.13158	0.21248		0.05067 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	2	2			0.31138	1.20296	0.75717	1.20296 C		0.31138 C
2,2',3,4',5,6-Hexachlorobiphenyl (147)	2	2			1.06502	3.9368	2.50091	3.9368 C		1.06502 C
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	2	2			1.69272	7.01832	4.35552	7.01832 C		1.69272 C
2,3,3',4,4',5-Hexachlorobiphenyl (156)	2	2			0.2436	0.93104	0.58732	0.93104 C		0.2436 C
2,3,3',4,4',6-Hexachlorobiphenyl (158)	2	2			0.1142	0.50069	0.30745	0.50069		0.1142
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	2	2			0.09599	0.35129	0.22364	0.35129		0.09599 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	2	2			0.01027	0.08149	0.04588	0.08149 J		0.01027 J
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	2	2			0.14845	0.58685	0.36765	0.58685		0.14845
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	2	2			0.0174	0.0685	0.04295	0.0685 JC		0.0174 JC
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	2	2			0.04617	0.15144	0.09881	0.15144 J		0.04617 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	2	2			0.26556	0.94668	0.60612	0.94668 C		0.26556 C
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	2	2			0.00414	0.01512	0.00963	0.01512 J		0.00414 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	2	2			0.0134	0.03985	0.02663	0.03985 J		0.0134 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	2	2			0.1099	0.42477	0.26734	0.42477		0.1099
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	2	2			0.06432	0.24045	0.15239	0.24045		0.06432 J
2,2',3,4,4',5,5' Heptachlorobiphenyl (180)	2	2			0.49456	1.54144	1.01800	1.54144 C		0.49456 C
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	2	2			0.00246	0.00593	0.00420	0.00593 J		0.00246 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	2	2			0.00056	0.0017	0.00113	0.0017 J		0.00056 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	2	2			0.37896	1.50829	0.94363	1.50829		0.37896
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	2	2			0.01008	0.03403	0.02206	0.03403 J		0.01008 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	2	2			0.03912	0.11828	0.07870	0.11828		0.03912 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	2	2			0.00727	0.02673	0.01700	0.02673 J		0.00727 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	2	2			0.04696	0.14534	0.09615	0.14534		0.04696 J
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	2	2			0.01527	0.05238	0.03383	0.05238 J		0.01527 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	2	2			0.03163	0.11353	0.07258	0.11353 J		0.03163 J
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	2	2			0.01168	0.03816	0.02492	0.03816 JC		0.01168 JC
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	2	2			0.28078	1.20756	0.74417	1.20756 C		0.28078 C
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)	2	2			0.28078	1.20756	0.74417	1.20756		0.28078
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	2	2			0.0162	0.06095	0.03858	0.06095 J		0.0162 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	2	2			0.09227	0.33278	0.21253	0.33278		0.09227 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	2	2			0.0036	0.01083	0.00722	0.01083 J		0.0036 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	2	2			0.11731	0.51317	0.31524	0.51317		0.11731 J
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	2	2			0.01353	0.05584	0.03469	0.05584 J		0.01353 J
Decachlorobiphenyl (209)	2	2			0.06431	0.31364	0.18898	0.31364 J		0.06431 J
PCB Congeners, Total	2	2			25.28354	90.95945	58.12150	90.95945		25.28354
Toxicity Equivalency (PCB)	2	2			0.00112	0.00413	0.00263	0.00413		0.00112

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Other (%)										
Lipid_percent	7	7			1.92	2.9	2.30	2.9	2.5	2.56

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Pesticides/PCBs (ug/Kg)				
4,4'-DDD	0.75 U	4.81	0.23 J	5.01
4,4'-DDE	4.81	1.87 U	5.01	1.89 U
4,4'-DDT	1.87 U	1.87 U	0.76 U	0.39 J
Aldrin	0.75 U	1.87 U	0.76 U	1.89 U
alpha-BHC	0.75 U	1.87 U	0.76 U	1.89 U
alpha-Chlordane	0.08 J	0.11 J	0.12 J	0.12 J
Aroclor, Total	63.1 J	74.19 J	102.28	130.21 J
Aroclor-1016	9.41 U	23.33 U	9.49 U	23.62 U
Aroclor-1221	9.41 U	23.33 U	9.49 U	23.62 U
Aroclor-1232	9.41 U	23.33 U	9.49 U	23.62 U
Aroclor-1242	9.41 U	23.33 U	9.49 U	23.62 U
Aroclor-1248	9.41 U	23.33 U	9.49 U	23.62 U
Aroclor-1254	58.45	69.27	96.34	122.68
Aroclor-1260	9.41 U	23.33 U	9.49 U	23.62 U
Aroclor-1268	4.66 J	4.91 J	5.94 J	7.53 J
beta-BHC	0.75 U	1.87 U	0.76 U	1.89 U
delta-BHC	0.75 U	1.87 U	0.76 U	1.89 U
Dieldrin	0.75 U	1.87 U	0.63 J	0.69 J
Endosulfan I	0.75 U	1.87 U	0.76 U	1.89 U
Endosulfan II	0.75 U	1.87 U	0.76 U	1.89 U
Endosulfan Sulfate	0.75 U	1.87 U	0.76 U	1.89 U
Endrin	0.75 U	1.87 U	0.76 U	1.89 U
Endrin Aldehyde	0.75 U	1.87 U	0.76 U	1.89 U
Endrin Ketone	0.75 U	1.87 U	0.76 U	1.89 U
gamma-BHC	0.75 U	1.87 U	0.76 U	1.89 U
gamma-Chlordane	0.75 U	1.87 U	0.76 U	1.89 U
Heptachlor	0.75 U	1.87 U	0.76 U	1.89 U
Heptachlor Epoxide	0.75 U	1.87 U	0.76 U	1.89 U
Methoxychlor	0.75 U	1.87 U	0.76 U	1.89 U
Technical Chlordane	16.5 J	26.65 J	18.58 J	29.95 J
Toxaphene	18.82 U	46.65 U	18.98 U	47.23 U
Inorganics (mg/Kg)				
Aluminum	1.1 U		1.1 U	
Antimony	0.032 U		0.0166 J	
Arsenic	0.217 U		0.251 U	
Barium	25.8 J		30.5 J	

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Beryllium	0.00375 U		0.004 UJ	
Cadmium	0.065 J		0.164 J	
Chromium	0.252 U		0.23 J	
Cobalt	0.244 J		0.35 J	
Copper	31.6		33	
Iron	77 J		127 J	
Lead	0.717 J		1.16 J	
Manganese	108		214	
Mercury	0.022		0.0259	
Mercury (methyl)	0.0131		0.0182	
Molybdenum	0.0907 J		0.198 J	
Nickel	0.487		0.584	
Selenium	0.13 J		0.142 J	
Silver	0.236		0.23	
Thallium	0.00717 J		0.0113 J	
Vanadium	0.232 J		0.361 J	
Zinc	32.5		27.2	
Dioxins/Furans (ug/Kg)				
HCX	0.0593 B		0.10449 B	
TCX	0.00249 U		0.00247 U	
2,3,7,8-TCDD	0.08331		0.12804	
1,2,3,7,8-PeCDD	0.00249 U		0.00247 U	
1,2,3,4,7,8-HxCDD	0.00249 U		0.00247 U	
1,2,3,6,7,8-HxCDD	0.00018 J		0.00247 U	
1,2,3,7,8,9-HxCDD	0.00249 U		0.00247 U	
1,2,3,4,6,7,8-HpCDD	0.0015 J		0.00082 J	
OCDD	0.00893 U		0.00472 J	
2,3,7,8-TCDF	0.00071 #		0.00062 #	
1,2,3,7,8-PeCDF	0.00011 J		0.00247 U	
2,3,4,7,8-PeCDF	0.00015 J		0.00247 U	
1,2,3,4,7,8-HxCDF	0.00249 U		0.00247 U	
1,2,3,6,7,8-HxCDF	0.0001 J		0.00012 J	
2,3,4,6,7,8-HxCDF	0.00249 U		0.00247 U	
1,2,3,7,8,9-HxCDF	0.00249 U		0.00247 U	
1,2,3,4,6,7,8-HpCDF	0.0006 J		0.00042 J	
1,2,3,4,7,8,9-HpCDF	0.00249 U		0.00247 U	
OCDF	0.00083 J		0.00046 J	

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Table A-27
Summary Statistics and Analytical Results for Crayfish - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-CF-4004-0000-01 7/20/2001	LPX-CF-4004-0000-01 7/20/2001 REPLICATE	WRL-CF-4005-0000-01 7/20/2001	WRL-CF-4005-0000-01 7/20/2001 REPLICATE
Total TCDD	0.08331 J		0.12804 J	
Total PeCDD	0.00025 J		0.00247 U	
Total HxCDD	0.00053 J		0.00043 J	
Total HpCDD	0.00276 UJ		0.00159 J	
Total TCDF	0.00279 J		0.00229 J	
Total PeCDF	0.00521 J		0.00669 J	
Total HxCDF	0.00182 J		0.00213 J	
Total HpCDF	0.00097 J		0.00065 J	
Toxicity Equivalency (Dioxins, Furans, HCX)	0.0835		0.128	
PCB Congeners (ug/Kg)				
2-Monochlorobiphenyl (1)				
4-Chlorobiphenyl (3)				
2,2'-Dichlorobiphenyl (4)				
2,3-Dichlorobiphenyl (5)				
2,3'-Dichlorobiphenyl (6)				
2,4-Dichlorobiphenyl (7)				
2,4'-Dichlorobiphenyl (8)				
2,5-Dichlorobiphenyl (9)				
2,6-Dichlorobiphenyl (10)				
3,4-Dichlorobiphenyl (12)				
2,2',3'-Trichlorobiphenyl (16)				
2,2',4-Trichlorobiphenyl (17)				
2,2',5-Trichlorobiphenyl (18)				
2,2',6-Trichlorobiphenyl (19)				
2,3,3'-Trichlorobiphenyl (20)				
2,3,4'-Trichlorobiphenyl (22)				
2,3',4-Trichlorobiphenyl (25)				
2,3',5-Trichlorobiphenyl (26)				
2,4',5-Trichlorobiphenyl (31)				
2,4',6-Trichlorobiphenyl (32)				
2,2',3,3'-Tetrachlorobiphenyl (40)				
2,2',3,4'-Tetrachlorobiphenyl (42)				
2,2',3,5-Tetrachlorobiphenyl (43)				
2,2',3,5'-Tetrachlorobiphenyl (44)				
2,2',3,6-Tetrachlorobiphenyl (45)				
2,2',3,6'-Tetrachlorobiphenyl (46)				
2,2',4,5-Tetrachlorobiphenyl (48)				

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Table A-27
Summary Statistics and Analytical Results for Crayfish - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-CF-4004-0000-01 7/20/2001	LPX-CF-4004-0000-01 7/20/2001 REPLICATE	WRL-CF-4005-0000-01 7/20/2001	WRL-CF-4005-0000-01 7/20/2001 REPLICATE
2,2',4,5'-Tetrachlorobiphenyl (49)				
2,2',4,6-Tetrachlorobiphenyl (50)				
2,3,3',4'-Tetrachlorobiphenyl (56)				
2,3,3',6-Tetrachlorobiphenyl (59)				
2,3,4,4'-Tetrachlorobiphenyl (60)				
2,3,4,5-Tetrachlorobiphenyl (61)				
2,3,4',5-Tetrachlorobiphenyl (63)				
2,3,4',6-Tetrachlorobiphenyl (64)				
2,3',4,4'-Tetrachlorobiphenyl (66)				
3,3',4,4'-Tetrachlorobiphenyl (77)				
3,4,4',5-Tetrachlorobiphenyl (81)				
2,2',3,3',4-Pentachlorobiphenyl (82)				
2,2',3,3',5-Pentachlorobiphenyl (83)				
2,2',3,3',6-Pentachlorobiphenyl (84)				
2,2',3,4,4'-Pentachlorobiphenyl (85)				
2,2',3,4,5-Pentachlorobiphenyl (86)				
2,2',3,4,6-Pentachlorobiphenyl (88)				
2,2',3,4,6'-Pentachlorobiphenyl (89)				
2,2',3,4',5-Pentachlorobiphenyl (90)				
2,2',3,5,5'-Pentachlorobiphenyl (92)				
2,2',3,5,6-Pentachlorobiphenyl (93)				
2,2',3,5',6-Pentachlorobiphenyl (95)				
2,3,3',4,4'-Pentachlorobiphenyl (105)				
2,3,3',4,5-Pentachlorobiphenyl (106)				
2,3,3',4',5'-Pentachlorobiphenyl (108)				
2,3,3',4',6-Pentachlorobiphenyl (110)				
2,3,4,4',5-Pentachlorobiphenyl (114)				
2,3',4,4',5-Pentachlorobiphenyl (118)				
3,3',4,4',5-Pentachlorobiphenyl (126)				
2,2',3,3',4,4'-Hexachlorobiphenyl (128)				
2,2',3,3',4,5-Hexachlorobiphenyl (129)				
2,2',3,3',4,5'-Hexachlorobiphenyl (130)				
2,2',3,3',4,6-Hexachlorobiphenyl (131)				
2,2',3,3',4,6'-Hexachlorobiphenyl (132)				
2,2',3,3',5,6-Hexachlorobiphenyl (134)				
2,2',3,3',5,6'-Hexachlorobiphenyl (135)				
2,2',3,3',6,6'-Hexachlorobiphenyl (136)				

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Table A-27
Summary Statistics and Analytical Results for Crayfish - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-CF-4004-0000-01 7/20/2001	LPX-CF-4004-0000-01 7/20/2001 REPLICATE	WRL-CF-4005-0000-01 7/20/2001	WRL-CF-4005-0000-01 7/20/2001 REPLICATE
2,2',3,4,4',5-Hexachlorobiphenyl (137)				
2,2',3,4,5,5'-Hexachlorobiphenyl (141)				
2,2',3,4,5',6-Hexachlorobiphenyl (144)				
2,2',3,4',5,5'-Hexachlorobiphenyl (146)				
2,2',3,4',5,6-Hexachlorobiphenyl (147)				
2,2',4,4',5,5'-Hexachlorobiphenyl (153)				
2,3,3',4,4',5-Hexachlorobiphenyl (156)				
2,3,3',4,4',6-Hexachlorobiphenyl (158)				
2,3',4,4',5,5'-Hexachlorobiphenyl (167)				
3,3',4,4',5,5'-Hexachlorobiphenyl (169)				
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)				
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)				
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)				
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)				
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)				
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)				
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)				
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)				
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)				
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)				
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)				
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)				
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)				
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)				
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)				
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)				
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)				
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)				
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)				
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)				
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)				
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)				
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)				
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)				
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl				
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl				
Decachlorobiphenyl (209)				
PCB Congeners, Total				
Toxicity Equivalency (PCB)				

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Table A-27
Summary Statistics and Analytical Results for Crayfish - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	LPX-CF-4004-0000-01 7/20/2001	LPX-CF-4004-0000-01 7/20/2001 REPLICATE	WRL-CF-4005-0000-01 7/20/2001	WRL-CF-4005-0000-01 7/20/2001 REPLICATE
Other (%)				
Lipid_percent	2.29	1.92	1.95	1.98

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Table A-28
Summary Statistics and Analytical Results for Crayfish - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-CF-5004-0000-01 7/20/2001
Pesticides/PCBs (ug/Kg)								
4,4'-DDD	0	1	0.76	0.76			0.38	0.76 U
4,4'-DDE	1	1			3.61	3.61	3.61	3.61
4,4'-DDT	0	1	0.76	0.76			0.38	0.76 U
Aldrin	0	1	0.76	0.76			0.38	0.76 U
alpha-BHC	0	1	0.76	0.76			0.38	0.76 U
alpha-Chlordane	0	1	0.76	0.76			0.38	0.76 U
Aroclor, Total	1	1			11.02	11.02	11.02	11.02 J
Aroclor-1016	0	1	9.52	9.52			4.76	9.52 U
Aroclor-1221	0	1	9.52	9.52			4.76	9.52 U
Aroclor-1232	0	1	9.52	9.52			4.76	9.52 U
Aroclor-1242	0	1	9.52	9.52			4.76	9.52 U
Aroclor-1248	0	1	9.52	9.52			4.76	9.52 U
Aroclor-1254	1	1			10.34	10.34	10.34	10.34
Aroclor-1260	0	1	9.52	9.52			4.76	9.52 U
Aroclor-1268	1	1			0.69	0.69	0.69	0.69 J
beta-BHC	0	1	0.76	0.76			0.38	0.76 U
delta-BHC	0	1	0.76	0.76			0.38	0.76 U
Dieldrin	0	1	0.76	0.76			0.38	0.76 U
Endosulfan I	0	1	0.76	0.76			0.38	0.76 U
Endosulfan II	0	1	0.76	0.76			0.38	0.76 U
Endosulfan Sulfate	0	1	0.76	0.76			0.38	0.76 U
Endrin	0	1	0.76	0.76			0.38	0.76 U
Endrin Aldehyde	0	1	0.76	0.76			0.38	0.76 U
Endrin Ketone	0	1	0.76	0.76			0.38	0.76 U
gamma-BHC	0	1	0.76	0.76			0.38	0.76 U
gamma-Chlordane	0	1	0.76	0.76			0.38	0.76 U
Heptachlor	0	1	0.76	0.76			0.38	0.76 U
Heptachlor Epoxide	1	1			0.09	0.09	0.09	0.09 J
Methoxychlor	0	1	0.76	0.76			0.38	0.76 U
Technical Chlordane	1	1			8.83	8.83	8.83	8.83 J
Toxaphene	0	1	19.04	19.04			9.52	19.04 U
Inorganics (mg/Kg)								
Aluminum	0	1	1.1	1.1			0.550	1.1 UJ
Antimony	0	1	0.032	0.032			0.0160	0.032 U
Arsenic	0	1	0.153	0.153			0.0765	0.153 U
Barium	1	1			39.7	39.7	39.7	39.7 J
Beryllium	0	1	0.004	0.004			0.00200	0.004 UJ
Cadmium	1	1			0.0819	0.0819	0.0819	0.0819 J
Chromium	0	1	0.252	0.252			0.126	0.252 U

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Table A-28
Summary Statistics and Analytical Results for Crayfish - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-CF-5004-0000-01 7/20/2001
Cobalt	1	1			0.0829	0.0829	0.0829	0.0829 J
Copper	1	1			15	15	15.0	15
Iron	1	1			29.4	29.4	29.4	29.4 J
Lead	1	1			0.14	0.14	0.140	0.14 J
Manganese	1	1			112	112	112	112
Mercury	1	1			0.0389	0.0389	0.0389	0.0389
Mercury (methyl)	1	1			0.0389	0.0389	0.0389	0.0389
Molybdenum	1	1			0.0425	0.0425	0.0425	0.0425 J
Nickel	1	1			0.25	0.25	0.250	0.25 J
Selenium	1	1			0.125	0.125	0.125	0.125 J
Silver	1	1			0.215	0.215	0.215	0.215
Thallium	1	1			0.00712	0.00712	0.00712	0.00712 J
Vanadium	0	1	0.168	0.168			0.0840	0.168 U
Zinc	1	1			22.9	22.9	22.9	22.9
Dioxins/Furans (ug/Kg)								
HCX	0	1	0.01987	0.01987			0.00994	0.01987 U
TCX	0	1	0.00248	0.00248			0.00124	0.00248 U
2,3,7,8-TCDD	1	1			0.00039	0.00039	0.00039	0.00039 J
1,2,3,7,8-PeCDD	0	1	0.00248	0.00248			0.00124	0.00248 U
1,2,3,4,7,8-HxCDD	0	1	0.00248	0.00248			0.00124	0.00248 U
1,2,3,6,7,8-HxCDD	0	1	0.00248	0.00248			0.00124	0.00248 U
1,2,3,7,8,9-HxCDD	0	1	0.00248	0.00248			0.00124	0.00248 U
1,2,3,4,6,7,8-HpCDD	0	1	0.00248	0.00248			0.00124	0.00248 U
OCDD	1	1			0.0012	0.0012	0.00120	0.0012 J
2,3,7,8-TCDF	1	1			0.00028	0.00028	0.00028	0.00028 J
1,2,3,7,8-PeCDF	0	1	0.00248	0.00248			0.00124	0.00248 U
2,3,4,7,8-PeCDF	0	1	0.00248	0.00248			0.00124	0.00248 U
1,2,3,4,7,8-HxCDF	1	1			0.00004	0.00004	0.00004	0.00004 J
1,2,3,6,7,8-HxCDF	0	1	0.00248	0.00248			0.00124	0.00248 U
2,3,4,6,7,8-HxCDF	1	1			0.00004	0.00004	0.00004	0.00004 J
1,2,3,7,8,9-HxCDF	0	1	0.00248	0.00248			0.00124	0.00248 U
1,2,3,4,6,7,8-HpCDF	1	1			0.00008	0.00008	0.00008	0.00008 J
1,2,3,4,7,8,9-HpCDF	0	1	0.00248	0.00248			0.00124	0.00248 U
OCDF	1	1			0.00013	0.00013	0.00013	0.00013 J
Total TCDD	1	1			0.00038	0.00038	0.00038	0.00038 J
Total PeCDD	0	1	0.00248	0.00248			0.00124	0.00248 U
Total HxCDD	0	1	0.00248	0.00248			0.00124	0.00248 U
Total HpCDD	1	1			0.00018	0.00018	0.00018	0.00018 J
Total TCDF	1	1			0.00055	0.00055	0.00055	0.00055
Total PeCDF	1	1			0.00042	0.00042	0.00042	0.00042 J

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Table A-28
Summary Statistics and Analytical Results for Crayfish - Assapumpset Pond

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RAB-CF-5004-0000-01 7/20/2001
Total HxCDF	1	1			0.00013	0.00013	0.00013	0.00013 J
Total HpCDF	1	1			0.00008	0.00008	0.00008	0.00008 J
Toxicity Equivalency (Dioxins, Furans, HCX)	1	1			0.000427	0.000427	0.000427	0.000427
Other (%)								
Lipid_percent	1	1			2.3	2.3	2.30	2.3

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

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Table A-29
Summary Statistics and Analytical Results for Earthworm - Upstream

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	RWR-EW-5001-0000-01 7/17/2001	RWR-EW-5002-0000-01 7/16/2001	RWR-EW-5003-0000-01 7/17/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	4	4			0.81	2.05	1.34	1.49	1 J	2.05
4,4'-DDE	4	4			1.4	1.9	1.71	1.89	1.66 J	1.9
4,4'-DDT	1	4	0.75	1.33	2.42	2.42	0.96	1.33 U	0.75 UJ	0.77 U
Aldrin	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
alpha-BHC	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
alpha-Chlordane	4	4			1.01	1.92	1.44	1.92	1.37	1.45
Aroclor, Total	4	4			36.72	70.83	50.29	49.09 J	44.53 J	70.83 J
Aroclor-1016	0	4	9.36	16.65			5.63	16.65 U	9.36 U	9.63 U
Aroclor-1221	0	4	9.36	16.65			5.63	16.65 U	9.36 U	9.63 U
Aroclor-1232	0	4	9.36	16.65			5.63	16.65 U	9.36 U	9.63 U
Aroclor-1242	0	4	9.36	16.65			5.63	16.65 U	9.36 U	9.63 U
Aroclor-1248	0	4	9.36	16.65			5.63	16.65 U	9.36 U	9.63 U
Aroclor-1254	4	4			25.9	58.75	38.91	36.22	34.76	58.75
Aroclor-1260	0	4	9.36	16.65			5.63	16.65 U	9.36 U	9.63 U
Aroclor-1268	4	4			9.77	12.87	11.38	12.87 J	9.77	12.08
beta-BHC	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
delta-BHC	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
Dieldrin	2	4	0.75	1.33	0.84	1.35	0.81	1.33 U	0.75 U	0.84
Endosulfan I	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
Endosulfan II	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
Endosulfan Sulfate	4	4			0.67	2.03	1.37	1.33	0.67 J	1.44
Endrin	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
Endrin Aldehyde	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
Endrin Ketone	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
gamma-BHC	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
gamma-Chlordane	4	4			1.05	1.52	1.28	1.05 J	1.23	1.32
Heptachlor	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
Heptachlor Epoxide	1	4	0.75	1.33	0.31	0.31	0.43	1.33 U	0.75 U	0.77 U
Methoxychlor	0	4	0.75	1.33			0.45	1.33 U	0.75 U	0.77 U
Technical Chlordane	4	4			29.15	52.6	40.54	29.15 J	32.05 J	52.6 J
Toxaphene	0	4	18.72	33.3			11.27	33.3 U	18.72 U	19.26 U
Inorganics (mg/Kg)										
Aluminum	4	4			1064	3764	2684	1064 J	2468 J	3441 J
Antimony	4	4			0.0962	0.357	0.224	0.0962 J	0.169 J	0.357 J
Arsenic	4	4			0.393	0.833	0.601	0.393 J	0.557 J	0.833 J
Barium	4	4			12.4	51.9	36.1	12.4 J	29.9 J	50.1 J
Beryllium	4	4			0.123	0.335	0.253	0.123 J	0.253 J	0.3 J

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Cadmium	4	4			2.02	4.13	2.97	2.78	2.96	4.13
Chromium	4	4			3.18	17.2	9.47	3.18	7.56	17.2
Cobalt	4	4			0.749	1.74	1.16	0.749	0.986	1.74
Copper	4	4			8.6	19.4	14.0	10.8	8.6	19.4
Iron	4	4			1086	2494	1891	1086	1766	2219
Lead	4	4			8.82	63.2	28.5	8.82 J	20.2 J	63.2 J
Manganese	4	4			157	319	227	157	238	192
Mercury	4	4			0.0249	0.0762	0.0476	0.0249	0.0415	0.0762
Mercury (methyl)	4	4			0.00261	0.00468	0.00395	0.00416	0.00261	0.00436
Molybdenum	4	4			0.733	5.36	2.29	0.733	1.34	5.36
Nickel	4	4			2.32	10.5	4.99	10.5	2.32	3.8
Selenium	4	4			0.248	0.996	0.563	0.447 J	0.559 J	0.996 J
Silver	4	4			0.105	0.324	0.186	0.105	0.324	0.174
Thallium	4	4			0.0259	0.0639	0.0551	0.0259	0.0486	0.0639
Vanadium	4	4			1.77	6.37	4.02	1.77	3.18	6.37
Zinc	4	4			40.1	117	85.5	40.1	117	114
Dioxins/Furans (ug/Kg)										
HCX	0	4	0.01984	0.0397			0.01242	0.01984 U	0.0397 U	0.01993 U
TCX	0	4	0.00248	0.00496			0.00155	0.00248 U	0.00496 U	0.00249 U
2,3,7,8-TCDD	3	4	0.0005	0.0005	0.0003	0.00047	0.00036	0.00047 J	0.0003 J	0.00043 J
1,2,3,7,8-PeCDD	3	4	0.00496	0.00496	0.00033	0.00045	0.00091	0.00039 J	0.00496 U	0.00033 J
1,2,3,4,7,8-HxCDD	4	4			0.00045	0.00087	0.00058	0.00045 J	0.00048 J	0.00051 J
1,2,3,6,7,8-HxCDD	4	4			0.00157	0.00273	0.00198	0.00157 J	0.00167 J	0.00195 J
1,2,3,7,8,9-HxCDD	4	4			0.00102	0.00206	0.00146	0.00129 J	0.00102 J	0.00148 J
1,2,3,4,6,7,8-HpCDD	4	4			0.02553	0.0518	0.03591	0.02553 J	0.02667 J	0.03965 J
OCDD	4	4			0.18487	0.35945	0.26776	0.18487 J	0.20235 J	0.32437 J
2,3,7,8-TCDF	1	4	0.0005	0.00249	0.00086	0.00086	0.00071	0.0005 U	0.00099 U	0.00086 #
1,2,3,7,8-PeCDF	2	4	0.00248	0.00496	0.00042	0.00047	0.00115	0.00248 U	0.00496 U	0.00047 J
2,3,4,7,8-PeCDF	2	4	0.00248	0.00496	0.00056	0.00059	0.00122	0.00248 U	0.00496 U	0.00056 J
1,2,3,4,7,8-HxCDF	3	4	0.00496	0.00496	0.00076	0.00185	0.00169	0.00076 J	0.00496 U	0.00165 J
1,2,3,6,7,8-HxCDF	4	4			0.00061	0.00153	0.00102	0.00061 J	0.00069 J	0.00126 J
2,3,4,6,7,8-HxCDF	3	4	0.00496	0.00496	0.00042	0.00094	0.00115	0.00042 J	0.00496 U	0.00077 J
1,2,3,7,8,9-HxCDF	0	4	0.00248	0.00496			0.00155	0.00248 U	0.00496 U	0.00249 U
1,2,3,4,6,7,8-HpCDF	4	4			0.0088	0.02028	0.01408	0.0088 J	0.01033 J	0.01692 J
1,2,3,4,7,8,9-HpCDF	3	4	0.00496	0.00496	0.00053	0.00117	0.00122	0.00053 J	0.00496 U	0.00071 J
OCDF	4	4			0.01696	0.03515	0.02521	0.01696 J	0.02278 J	0.02596 J
Total TCDD	3	4	0.0005	0.0005	0.0003	0.0008	0.00045	0.0008 J	0.0003 J	0.00043 J
Total PeCDD	3	4	0.00496	0.00496	0.00097	0.00276	0.00208	0.00276 J	0.00496 U	0.00212 J

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Total HxCDD	4	4			0.00995	0.02359	0.01607	0.02359 J	0.00995 J	0.01436 J
Total HpCDD	4	4			0.05166	0.11046	0.08880	0.08963 J	0.05166 J	0.11046 J
Total TCDF	2	4	0.00182	0.00197	0.00129	0.00186	0.00126	0.00182 UJ	0.00129 J	0.00186 J
Total PeCDF	4	4			0.00948	0.02686	0.01710	0.02686 J	0.00948 J	0.01748 J
Total HxCDF	4	4			0.01337	0.04092	0.02521	0.04092 J	0.01337 J	0.02228 J
Total HpCDF	4	4			0.02116	0.04169	0.02949	0.02166 J	0.02116 J	0.03344 J
Toxicity Equivalency (Dioxins, Furans, HCX)	4	4			0.00108	0.00254	0.00197	0.00174	0.00108	0.00252
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	1	1			0.00881	0.00881	0.00881		0.00881 J	
4-Chlorobiphenyl (3)	1	1			0.0076	0.0076	0.00760		0.0076 J	
2,2'-Dichlorobiphenyl (4)	0	1	0.09926	0.09926			0.04963		0.09926 U	
2,3-Dichlorobiphenyl (5)	0	1	0.00993	0.00993			0.00497		0.00993 U	
2,3'-Dichlorobiphenyl (6)	0	1	0.00993	0.00993			0.00497		0.00993 U	
2,4-Dichlorobiphenyl (7)	0	1	0.00993	0.00993			0.00497		0.00993 U	
2,4'-Dichlorobiphenyl (8)	1	1			0.02937	0.02937	0.02937		0.02937 J	
2,5-Dichlorobiphenyl (9)	0	1	0.00993	0.00993			0.00497		0.00993 U	
2,6-Dichlorobiphenyl (10)	0	1	0.00993	0.00993			0.00497		0.00993 U	
3,4-Dichlorobiphenyl (12)	0	1	0.01985	0.01985			0.00993		0.01985 UC	
2,2',3'-Trichlorobiphenyl (16)	1	1			0.02697	0.02697	0.02697		0.02697 C	
2,2',4-Trichlorobiphenyl (17)	1	1			0.03219	0.03219	0.03219		0.03219 J	
2,2',5-Trichlorobiphenyl (18)	1	1			0.0643	0.0643	0.06430		0.0643 JC	
2,2',6-Trichlorobiphenyl (19)	1	1			0.00589	0.00589	0.00589		0.00589 J	
2,3,3'-Trichlorobiphenyl (20)	1	1			0.38996	0.38996	0.38996		0.38996 C	
2,3,4'-Trichlorobiphenyl (22)	1	1			0.09991	0.09991	0.09991		0.09991 J	
2,3',4-Trichlorobiphenyl (25)	1	1			0.01883	0.01883	0.01883		0.01883 J	
2,3',5-Trichlorobiphenyl (26)	1	1			0.03974	0.03974	0.03974		0.03974 C	
2,4',5-Trichlorobiphenyl (31)	1	1			0.21075	0.21075	0.21075		0.21075 J	
2,4',6-Trichlorobiphenyl (32)	1	1			0.03728	0.03728	0.03728		0.03728 J	
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			0.34833	0.34833	0.34833		0.34833 C	
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			0.20709	0.20709	0.20709		0.20709 J	
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			1.64886	1.64886	1.64886		1.64886 C	
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			0.74619	0.74619	0.74619		0.74619 C	
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.05788	0.05788	0.05788		0.05788 C	
2,2',3,6'-Tetrachlorobiphenyl (46)	1	1			0.01842	0.01842	0.01842		0.01842 J	
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			0.08892	0.08892	0.08892		0.08892 J	
2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			0.51336	0.51336	0.51336		0.51336 C	
2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.06648	0.06648	0.06648		0.06648 C	
2,3,3',4'-Tetrachlorobiphenyl (56)	1	1			0.16789	0.16789	0.16789		0.16789 J	

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2,3,3',6-Tetrachlorobiphenyl (59)	1	1			0.04893	0.04893	0.04893		0.04893 C	
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			0.05699	0.05699	0.05699		0.05699 J	
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			1.134	1.134	1.13400		1.134 C	
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.01852	0.01852	0.01852		0.01852 J	
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			0.27786	0.27786	0.27786		0.27786 J	
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			0.64426	0.64426	0.64426		0.64426 J	
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.03919	0.03919	0.03919		0.03919 J	
3,4,4',5-Tetrachlorobiphenyl (81)	0	1	0.09926	0.09926			0.04963		0.09926 U	
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			0.29909	0.29909	0.29909		0.29909 J	
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			1.52994	1.52994	1.52994		1.52994 C	
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			0.88213	0.88213	0.88213		0.88213 J	
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			0.40506	0.40506	0.40506		0.40506 C	
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			2.08884	2.08884	2.08884		2.08884 C	
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			0.45838	0.45838	0.45838		0.45838 C	
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.01724	0.01724	0.01724		0.01724 J	
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			3.84333	3.84333	3.84333		3.84333 C	
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			0.87938	0.87938	0.87938		0.87938 J	
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			0.1284	0.1284	0.12840		0.1284 C	
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			3.39297	3.39297	3.39297		3.39297 J	
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			0.75666	0.75666	0.75666		0.75666 J	
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			0.28822	0.28822	0.28822		0.28822 C	
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.16216	0.16216	0.16216		0.16216 C	
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			4.48514	4.48514	4.48514		4.48514 C	
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			0.01761	0.01761	0.01761		0.01761 J	
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			2.27588	2.27588	2.27588		2.27588 J	
3,3',4,4',5-Pentachlorobiphenyl (126)	0	1	0.19852	0.19852			0.09926		0.19852 U	
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			0.75876	0.75876	0.75876		0.75876 C	
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			4.83232	4.83232	4.83232		4.83232 C	
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			0.29816	0.29816	0.29816		0.29816 J	
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.05187	0.05187	0.05187		0.05187 J	
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			1.2814	1.2814	1.28140		1.2814 J	
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1	1			0.1391	0.1391	0.13910		0.1391 C	
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			1.2192	1.2192	1.21920		1.2192 C	
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1	1			0.4498	0.4498	0.44980		0.4498 J	
2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			0.68292	0.68292	0.68292		0.68292 C	
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			0.52717	0.52717	0.52717		0.52717 J	
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			0.0808	0.0808	0.08080		0.0808 J	
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			1.03636	1.03636	1.03636		1.03636 C	

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2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			5.6409	5.6409	5.64090		5.6409 C	
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			2.53512	2.53512	2.53512		2.53512 C	
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			0.369	0.369	0.36900		0.369 C	
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			0.26423	0.26423	0.26423		0.26423 J	
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			0.16569	0.16569	0.16569		0.16569 J	
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.0531	0.0531	0.05310		0.0531 J	
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			0.40449	0.40449	0.40449		0.40449 J	
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			0.12176	0.12176	0.12176		0.12176 JC	
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			0.13193	0.13193	0.13193		0.13193 J	
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			0.7608	0.7608	0.76080		0.7608 C	
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	1	1			0.01762	0.01762	0.01762		0.01762 J	
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.04366	0.04366	0.04366		0.04366 J	
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			0.29101	0.29101	0.29101		0.29101 J	
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			0.22952	0.22952	0.22952		0.22952 J	
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			0.92628	0.92628	0.92628		0.92628 C	
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	0	1	0.19852	0.19852			0.09926		0.19852 U	
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.00285	0.00285	0.00285		0.00285 J	
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			3.35627	3.35627	3.35627		3.35627 J	
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.02368	0.02368	0.02368		0.02368 J	
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			0.04112	0.04112	0.04112		0.04112 J	
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.01279	0.01279	0.01279		0.01279 J	
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			0.20371	0.20371	0.20371		0.20371 J	
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			0.05049	0.05049	0.05049		0.05049 J	
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			0.15624	0.15624	0.15624		0.15624 J	
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	1	1			0.06212	0.06212	0.06212		0.06212 JC	
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			2.28514	2.28514	2.28514		2.28514 C	
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.11153	0.11153	0.11153		0.11153 J	
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			0.54671	0.54671	0.54671		0.54671 J	
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	1	1			0.0199	0.0199	0.01990		0.0199 J	
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			2.33107	2.33107	2.33107		2.33107 J	
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.18094	0.18094	0.18094		0.18094 J	
Decachlorobiphenyl (209)	1	1			2.55105	2.55105	2.55105		2.55105 J	
PCB Congeners, Total	1	1			64.13232	64.13232	64.13232		64.13232 J	
Toxicity Equivalency (PCB)	1	1			0.00104	0.00104	0.00104		0.00104	

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Other (%)										
Lipid_percent	4	4			2.59	5.16	3.60	5.16	3.04	2.59

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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PARAMETER	RWR-EW-5004-0000-01 7/18/2001
Pesticides/PCBs (ug/Kg)	
4,4'-DDD	0.81
4,4'-DDE	1.4
4,4'-DDT	2.42
Aldrin	0.75 U
alpha-BHC	0.75 U
alpha-Chlordane	1.01
Aroclor, Total	36.72 J
Aroclor-1016	9.42 U
Aroclor-1221	9.42 U
Aroclor-1232	9.42 U
Aroclor-1242	9.42 U
Aroclor-1248	9.42 U
Aroclor-1254	25.9
Aroclor-1260	9.42 U
Aroclor-1268	10.81
beta-BHC	0.75 U
delta-BHC	0.75 U
Dieldrin	1.35
Endosulfan I	0.75 U
Endosulfan II	0.75 U
Endosulfan Sulfate	2.03
Endrin	0.75 U
Endrin Aldehyde	0.75 U
Endrin Ketone	0.75 U
gamma-BHC	0.75 U
gamma-Chlordane	1.52
Heptachlor	0.75 U
Heptachlor Epoxide	0.31 J
Methoxychlor	0.75 U
Technical Chlordane	48.37 J
Toxaphene	18.84 U
Inorganics (mg/Kg)	
Aluminum	3764 J
Antimony	0.273
Arsenic	0.621
Barium	51.9
Beryllium	0.335 J

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PARAMETER	RWR-EW-5004-0000-01 7/18/2001
Cadmium	2.02
Chromium	9.94
Cobalt	1.16
Copper	17.3
Iron	2494
Lead	21.7 J
Manganese	319
Mercury	0.0477
Mercury (methyl)	0.00468
Molybdenum	1.71
Nickel	3.35
Selenium	0.248 J
Silver	0.14
Thallium	0.0619
Vanadium	4.75
Zinc	70.8
Dioxins/Furans (ug/Kg)	
HCX	0.0199 U
TCX	0.00249 U
2,3,7,8-TCDD	0.0005 U
1,2,3,7,8-PeCDD	0.00045 J
1,2,3,4,7,8-HxCDD	0.00087 J
1,2,3,6,7,8-HxCDD	0.00273 J
1,2,3,7,8,9-HxCDD	0.00206 J
1,2,3,4,6,7,8-HpCDD	0.0518 J
OCDD	0.35945 J
2,3,7,8-TCDF	0.00249 U
1,2,3,7,8-PeCDF	0.00042 J
2,3,4,7,8-PeCDF	0.00059 J
1,2,3,4,7,8-HxCDF	0.00185 J
1,2,3,6,7,8-HxCDF	0.00153 J
2,3,4,6,7,8-HxCDF	0.00094 J
1,2,3,7,8,9-HxCDF	0.00249 U
1,2,3,4,6,7,8-HpCDF	0.02028 J
1,2,3,4,7,8,9-HpCDF	0.00117 J
OCDF	0.03515 J
Total TCDD	0.0005 U
Total PeCDD	0.00097 J

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PARAMETER	RWR-EW-5004-0000-01 7/18/2001
Total HxCDD	0.01636 J
Total HpCDD	0.10346 J
Total TCDF	0.00197 UJ
Total PeCDF	0.01457 J
Total HxCDF	0.02425 J
Total HpCDF	0.04169 J
Toxicity Equivalency (Dioxins, Furans, HCX)	0.00254
PCB Congeners (ug/Kg)	
2-Monochlorobiphenyl (1)	
4-Chlorobiphenyl (3)	
2,2'-Dichlorobiphenyl (4)	
2,3-Dichlorobiphenyl (5)	
2,3'-Dichlorobiphenyl (6)	
2,4-Dichlorobiphenyl (7)	
2,4'-Dichlorobiphenyl (8)	
2,5-Dichlorobiphenyl (9)	
2,6-Dichlorobiphenyl (10)	
3,4-Dichlorobiphenyl (12)	
2,2',3'-Trichlorobiphenyl (16)	
2,2',4-Trichlorobiphenyl (17)	
2,2',5-Trichlorobiphenyl (18)	
2,2',6-Trichlorobiphenyl (19)	
2,3,3'-Trichlorobiphenyl (20)	
2,3,4'-Trichlorobiphenyl (22)	
2,3',4-Trichlorobiphenyl (25)	
2,3',5-Trichlorobiphenyl (26)	
2,4',5-Trichlorobiphenyl (31)	
2,4',6-Trichlorobiphenyl (32)	
2,2',3,3'-Tetrachlorobiphenyl (40)	
2,2',3,4'-Tetrachlorobiphenyl (42)	
2,2',3,5-Tetrachlorobiphenyl (43)	
2,2',3,5'-Tetrachlorobiphenyl (44)	
2,2',3,6-Tetrachlorobiphenyl (45)	
2,2',3,6'-Tetrachlorobiphenyl (46)	
2,2',4,5-Tetrachlorobiphenyl (48)	
2,2',4,5'-Tetrachlorobiphenyl (49)	
2,2',4,6-Tetrachlorobiphenyl (50)	
2,3,3',4'-Tetrachlorobiphenyl (56)	

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PARAMETER	RWR-EW-5004-0000-01 7/18/2001
2,3,3',6-Tetrachlorobiphenyl (59)	
2,3,4,4'-Tetrachlorobiphenyl (60)	
2,3,4,5-Tetrachlorobiphenyl (61)	
2,3,4',5-Tetrachlorobiphenyl (63)	
2,3,4',6-Tetrachlorobiphenyl (64)	
2,3',4,4'-Tetrachlorobiphenyl (66)	
3,3',4,4'-Tetrachlorobiphenyl (77)	
3,4,4',5-Tetrachlorobiphenyl (81)	
2,2',3,3',4-Pentachlorobiphenyl (82)	
2,2',3,3',5-Pentachlorobiphenyl (83)	
2,2',3,3',6-Pentachlorobiphenyl (84)	
2,2',3,4,4'-Pentachlorobiphenyl (85)	
2,2',3,4,5-Pentachlorobiphenyl (86)	
2,2',3,4,6-Pentachlorobiphenyl (88)	
2,2',3,4,6'-Pentachlorobiphenyl (89)	
2,2',3,4',5-Pentachlorobiphenyl (90)	
2,2',3,5,5'-Pentachlorobiphenyl (92)	
2,2',3,5,6-Pentachlorobiphenyl (93)	
2,2',3,5',6-Pentachlorobiphenyl (95)	
2,3,3',4,4'-Pentachlorobiphenyl (105)	
2,3,3',4,5-Pentachlorobiphenyl (106)	
2,3,3',4',5'-Pentachlorobiphenyl (108)	
2,3,3',4',6-Pentachlorobiphenyl (110)	
2,3,4,4',5-Pentachlorobiphenyl (114)	
2,3',4,4',5-Pentachlorobiphenyl (118)	
3,3',4,4',5-Pentachlorobiphenyl (126)	
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	
2,2',3,3',4,5-Hexachlorobiphenyl (129)	
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	
2,2',3,3',4,6-Hexachlorobiphenyl (131)	
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	
2,2',3,3',5,6-Hexachlorobiphenyl (134)	
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	
2,2',3,4,4',5-Hexachlorobiphenyl (137)	
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	
2,2',3,4,5',6-Hexachlorobiphenyl (144)	
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	

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PARAMETER	RWR-EW-5004-0000-01 7/18/2001
2,2',3,4',5,6-Hexachlorobiphenyl (147)	
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	
2,3,3',4,4',5-Hexachlorobiphenyl (156)	
2,3,3',4,4',6-Hexachlorobiphenyl (158)	
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	
Decachlorobiphenyl (209)	
PCB Congeners, Total	
Toxicity Equivalency (PCB)	

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PARAMETER	RWR-EW-5004-0000-01 7/18/2001
Other (%)	
Lipid_percent	3.62

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Table A-30
Summary Statistics and Analytical Results for Earthworm - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	CMS-DU-072001 A 7/20/2001	CMS-DU-072001 A 7/20/2001 REPLICATE	CMS-EW-4001-0000-01 7/18/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	4	4			1.31	3.71	2.09		3.64	3.71
4,4'-DDE	4	4			1.83	3	2.29		3.38	3
4,4'-DDT	0	4	0.61	0.9			0.39		0.75 U	0.8 U
Aldrin	0	4	0.75	0.8			0.39		0.75 U	0.8 U
alpha-BHC	0	4	0.75	0.8			0.39		0.75 U	0.8 U
alpha-Chlordane	4	4			1.96	3.18	2.56		3.03	3.18
Aroclor, Total	4	4			54.18	121.73	88.49		170.2	121.73
Aroclor-1016	0	4	9.42	9.95			4.81		9.38 U	9.95 U
Aroclor-1221	0	4	9.42	9.95			4.81		9.38 U	9.95 U
Aroclor-1232	0	4	9.42	9.95			4.81		9.38 U	9.95 U
Aroclor-1242	0	4	9.42	9.95			4.81		9.38 U	9.95 U
Aroclor-1248	0	4	9.42	9.95			4.81		9.38 U	9.95 U
Aroclor-1254	4	4			48.55	115.84	83.31		165.27	115.84
Aroclor-1260	0	4	9.42	9.95			4.81		9.38 U	9.95 U
Aroclor-1268	4	4			4.4	5.89	5.18		4.94 J	5.89 J
beta-BHC	0	4	0.75	0.8			0.39		0.75 U	0.8 U
delta-BHC	1	4	0.76	0.8	0.66	0.66	0.46		0.75 U	0.8 U
Dieldrin	4	4			2.77	2.97	2.86		4.67	2.87
Endosulfan I	0	4	0.75	0.8			0.39		0.75 U	0.8 U
Endosulfan II	0	4	0.75	0.8			0.39		0.75 U	0.8 U
Endosulfan Sulfate	4	4			2.22	4.26	2.85		3.28	2.4
Endrin	0	4	0.75	0.8			0.39		1.29	0.8 U
Endrin Aldehyde	0	4	0.75	0.8			0.39		0.75 U	0.8 U
Endrin Ketone	0	4	0.75	0.8			0.39		0.75 U	0.8 U
gamma-BHC	0	4	0.75	0.8			0.39		0.75 U	0.8 U
gamma-Chlordane	4	4			1.97	5.18	3.59		4.46	4.36
Heptachlor	0	4	0.75	0.8			0.39		0.75 U	0.8 U
Heptachlor Epoxide	4	4			0.13	1.27	0.55		0.47 J	0.13 J
Methoxychlor	2	4	0.75	0.8	3.03	4	1.95		2.3	0.8 U
Technical Chlordane	4	4			59.51	119.24	93.96		121.11	117.2
Toxaphene	0	4	18.83	19.9			9.63		18.76 U	19.9 U
Inorganics (mg/Kg)										
Aluminum	4	4			2489	5581	4314		15039 J	4859 J
Antimony	4	4			0.18	0.241	0.208		0.229 J	0.18
Arsenic	4	4			0.465	0.61	0.567		5.6	0.465
Barium	4	4			29.4	51.5	44.1		181	47.7

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Table A-30
Summary Statistics and Analytical Results for Earthworm - Allendale

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	CMS-DU-072001 A 7/20/2001	CMS-DU-072001 A 7/20/2001 REPLICATE	CMS-EW-4001-0000-01 7/18/2001
Beryllium	4	4			0.179	0.297	0.257		2.14	0.263 J
Cadmium	4	4			1.72	2.85	2.37		1.95	2.4
Chromium	4	4			7.07	9.63	8.16		104	8.02
Cobalt	4	4			0.704	1.12	0.964		14.9 J	0.96
Copper	4	4			8.79	11.7	10.3		102	8.79
Iron	4	4			1536	2583	2186		28499	2098
Lead	4	4			17	54.6	28.3		272	17 J
Manganese	4	4			85.6	256	159		1534	124
Mercury	4	4			0.0371	0.0535	0.0448		0.362	0.0414
Mercury (methyl)	4	4			0.0023	0.00436	0.00329		0.000572 J	0.00436
Molybdenum	4	4			1.14	1.37	1.26		15.7 J	1.34
Nickel	4	4			2.59	3.01	2.80		33.7	2.69
Selenium	4	4			0.251	0.382	0.323		0.598 UJ	0.305 J
Silver	4	4			0.0477	0.105	0.0768		0.596	0.0477
Thallium	4	4			0.063	0.0757	0.0678		0.379	0.0681
Vanadium	4	4			3.64	5.76	4.82		49	4.67
Zinc	4	4			83.8	116	101		376 J	112
Dioxins/Furans (ug/Kg)										
HCX	4	4			4.07407	8.68996	6.63775		17.93255 J	5.13548 J
TCX	0	3	0.00248	0.00248			0.00124		0.00498 UJ	0.00248 UJ
2,3,7,8-TCDD	4	4			0.12294	0.2155	0.16469		0.30136 J	0.14025 J
1,2,3,7,8-PeCDD	4	4			0.00032	0.00084	0.00065		0.00079 J	0.00032 J
1,2,3,4,7,8-HxCDD	4	4			0.00073	0.00161	0.00120		0.00498 UJ	0.00073 J
1,2,3,6,7,8-HxCDD	4	4			0.00212	0.0046	0.00349		0.00426 J	0.00212 J
1,2,3,7,8,9-HxCDD	4	4			0.00187	0.00508	0.00328		0.0039 J	0.00187 J
1,2,3,4,6,7,8-HpCDD	4	4			0.04989	0.11669	0.08581		0.09356 J	0.04989 J
OCDD	4	4			0.38743	0.77502	0.59718		0.65295 J	0.38743 J
2,3,7,8-TCDF	1	4	0.0005	0.00338	0.00067	0.00067	0.00072		0.001 UJ	0.0005 UJ
1,2,3,7,8-PeCDF	1	4	0.00047	0.00248	0.00023	0.00023	0.00074		0.00498 UJ	0.00023 J
2,3,4,7,8-PeCDF	1	4	0.00055	0.00248	0.00034	0.00034	0.00077		0.00498 UJ	0.00248 UJ
1,2,3,4,7,8-HxCDF	4	4			0.00091	0.00205	0.00138		0.00164 J	0.00091 J
1,2,3,6,7,8-HxCDF	4	4			0.00087	0.00179	0.00118		0.00131 J	0.00087 J
2,3,4,6,7,8-HxCDF	4	4			0.00049	0.00092	0.00071		0.00086 J	0.00049 J
1,2,3,7,8,9-HxCDF	0	4	0.00036	0.00248			0.00098		0.00498 UJ	0.00248 UJ
1,2,3,4,6,7,8-HpCDF	4	4			0.01242	0.02704	0.01849		0.01975 J	0.01242 J
1,2,3,4,7,8,9-HpCDF	4	4			0.00079	0.00132	0.00101		0.00115 J	0.00079 J
OCDF	4	4			0.03276	0.06423	0.04478		0.04899 J	0.03276 J

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Summary Statistics and Analytical Results for Earthworm - Allendale

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	CMS-DU-072001-A 7/20/2001	CMS-DU-072001-A 7/20/2001 REPLICATE	CMS-EW-4001-0000-01 7/18/2001
Total TCDD	4	4			0.12294	0.2155	0.16469		0.30136 J	0.14025 J
Total PeCDD	4	4			0.00161	0.00359	0.00260		0.00172 J	0.00161 J
Total HxCDD	4	4			0.01609	0.04134	0.02744		0.02956 J	0.01609 J
Total HpCDD	4	4			0.0992	0.31616	0.19292		0.18143 J	0.0992 J
Total TCDF	1	4	0.00176	0.00338	0.00116	0.00116	0.00131		0.00269 UJ	0.00176 UJ
Total PeCDF	4	4			0.01196	0.03758	0.02201		0.03176 J	0.01861 J
Total HxCDF	4	4			0.02318	0.03416	0.02848		0.03592 J	0.02318 J
Total HpCDF	4	4			0.02953	0.06019	0.04195		0.0449 J	0.02953 J
Toxicity Equivalency (Dioxins, Furans, HCX)	4	4			0.127	0.22	0.169		0.308	0.143
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	1	1			0.08678	0.08678	0.08678		0.08678 J	
4-Chlorobiphenyl (3)	1	1			0.1098	0.1098	0.10980		0.1098 J	
2,2'-Dichlorobiphenyl (4)	1	1			0.23448	0.23448	0.23448		0.23448 J	
2,3-Dichlorobiphenyl (5)	1	1			0.02289	0.02289	0.02289		0.02289 J	
2,3'-Dichlorobiphenyl (6)	1	1			0.13138	0.13138	0.13138		0.13138 J	
2,4-Dichlorobiphenyl (7)	1	1			0.05126	0.05126	0.05126		0.05126 J	
2,4'-Dichlorobiphenyl (8)	1	1			0.79993	0.79993	0.79993		0.79993 J	
2,5-Dichlorobiphenyl (9)	1	1			0.05281	0.05281	0.05281		0.05281 J	
2,6-Dichlorobiphenyl (10)	1	1			0.01242	0.01242	0.01242		0.01242 J	
3,4-Dichlorobiphenyl (12)	1	1			0.10898	0.10898	0.10898		0.10898 C	
2,2',3'-Trichlorobiphenyl (16)	1	1			0.18633	0.18633	0.18633		0.18633 C	
2,2',4-Trichlorobiphenyl (17)	1	1			0.7848	0.7848	0.78480		0.7848 J	
2,2',5-Trichlorobiphenyl (18)	1	1			1.27568	1.27568	1.27568		1.27568 C	
2,2',6-Trichlorobiphenyl (19)	1	1			0.13673	0.13673	0.13673		0.13673 J	
2,3,3'-Trichlorobiphenyl (20)	1	1			4.75564	4.75564	4.75564		4.75564 C	
2,3,4'-Trichlorobiphenyl (22)	1	1			0.93901	0.93901	0.93901		0.93901 J	
2,3',4-Trichlorobiphenyl (25)	1	1			0.23283	0.23283	0.23283		0.23283 J	
2,3',5-Trichlorobiphenyl (26)	1	1			0.6209	0.6209	0.62090		0.6209 C	
2,4',5-Trichlorobiphenyl (31)	1	1			3.1214	3.1214	3.12140		3.1214 J	
2,4',6-Trichlorobiphenyl (32)	1	1			0.88573	0.88573	0.88573		0.88573	
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			4.62987	4.62987	4.62987		4.62987 C	
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			3.07944	3.07944	3.07944		3.07944 J	
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			23.96976	23.96976	23.96976		23.96976 C	
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			12.43095	12.43095	12.43095		12.43095 C	
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.88328	0.88328	0.88328		0.88328 C	
2,2',3,6'-Tetrachlorobiphenyl (46)	0	1	0.03981	0.03981			0.01991		0.03981 U	
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			1.25276	1.25276	1.25276		1.25276 J	

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2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			7.00572	7.00572	7.00572		7.00572 C	
2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.86874	0.86874	0.86874		0.86874 C	
2,3,3',4'-Tetrachlorobiphenyl (56)	1	1			2.96031	2.96031	2.96031		2.96031 J	
2,3,3',6-Tetrachlorobiphenyl (59)	1	1			0.72873	0.72873	0.72873		0.72873 C	
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			0.93947	0.93947	0.93947		0.93947 J	
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			16.8768	16.8768	16.87680		16.8768 C	
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.32616	0.32616	0.32616		0.32616 J	
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			4.38645	4.38645	4.38645		4.38645 J	
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			8.52139	8.52139	8.52139		8.52139 J	
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.42157	0.42157	0.42157		0.42157 J	
3,4,4',5-Tetrachlorobiphenyl (81)	0	1	0.09954	0.09954			0.04977		0.09954 U	
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			2.92418	2.92418	2.92418		2.92418 J	
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			12.86175	12.86175	12.86175		12.86175 C	
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			9.63081	9.63081	9.63081		9.63081 J	
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			3.49353	3.49353	3.49353		3.49353 C	
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			19.4595	19.4595	19.45950		19.4595 C	
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			3.82578	3.82578	3.82578		3.82578 C	
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.12631	0.12631	0.12631		0.12631 J	
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			32.51691	32.51691	32.51691		32.51691 C	
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			6.57415	6.57415	6.57415		6.57415 J	
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			0.60316	0.60316	0.60316		0.60316 C	
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			32.57502	32.57502	32.57502		32.57502 J	
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			5.50844	5.50844	5.50844		5.50844 J	
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			2.08132	2.08132	2.08132		2.08132 C	
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.98774	0.98774	0.98774		0.98774 C	
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			37.25288	37.25288	37.25288		37.25288 C	
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			0.26527	0.26527	0.26527		0.26527 J	
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			16.93355	16.93355	16.93355		16.93355 J	
3,3',4,4',5-Pentachlorobiphenyl (126)	0	1	0.19907	0.19907			0.09954		0.19907 U	
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			5.30012	5.30012	5.30012		5.30012 C	
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			38.52496	38.52496	38.52496		38.52496 C	
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			2.47699	2.47699	2.47699		2.47699 J	
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.59336	0.59336	0.59336		0.59336 J	
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			12.25016	12.25016	12.25016		12.25016 J	
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1	1			1.23904	1.23904	1.23904		1.23904 C	
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			9.62496	9.62496	9.62496		9.62496 C	
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1	1			5.77214	5.77214	5.77214		5.77214 J	

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2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			5.11928	5.11928	5.11928		5.11928 C	
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			4.27851	4.27851	4.27851		4.27851 J	
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			1.00388	1.00388	1.00388		1.00388 J	
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			6.4651	6.4651	6.46510		6.4651 C	
2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			47.5675	47.5675	47.56750		47.5675 C	
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			17.63654	17.63654	17.63654		17.63654 C	
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			2.34768	2.34768	2.34768		2.34768 C	
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			2.62643	2.62643	2.62643		2.62643 J	
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			0.86698	0.86698	0.86698		0.86698 J	
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.04422	0.04422	0.04422		0.04422 J	
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			2.28105	2.28105	2.28105		2.28105 J	
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			0.8052	0.8052	0.80520		0.8052 C	
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			0.43098	0.43098	0.43098		0.43098 J	
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			3.24939	3.24939	3.24939		3.24939 C	
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	1	1			0.07107	0.07107	0.07107		0.07107 J	
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.2715	0.2715	0.27150		0.2715 J	
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			1.47244	1.47244	1.47244		1.47244 J	
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			0.5293	0.5293	0.52930		0.5293 J	
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			3.45234	3.45234	3.45234		3.45234 C	
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	1	1			0.02024	0.02024	0.02024		0.02024 J	
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.00326	0.00326	0.00326		0.00326 J	
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			8.9537	8.9537	8.95370		8.9537 J	
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.0926	0.0926	0.09260		0.0926 J	
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			0.3161	0.3161	0.31610		0.3161 J	
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.08094	0.08094	0.08094		0.08094 J	
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			0.38389	0.38389	0.38389		0.38389 J	
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			0.1704	0.1704	0.17040		0.1704 J	
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			0.26548	0.26548	0.26548		0.26548 J	
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	1	1			0.10116	0.10116	0.10116		0.10116 CJ	
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			2.09946	2.09946	2.09946		2.09946 C	
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.11051	0.11051	0.11051		0.11051 J	
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			0.59125	0.59125	0.59125		0.59125 J	
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	1	1			0.02822	0.02822	0.02822		0.02822 J	
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			1.94454	1.94454	1.94454		1.94454 J	
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.13955	0.13955	0.13955		0.13955 J	
Decachlorobiphenyl (209)	1	1			1.7132	1.7132	1.71320		1.7132 J	
PCB Congeners, Total	1	1			484.7671	484.7671	484.76710		484.7671 J	
Toxicity Equivalency (PCB)	1	1			0.00405	0.00405	0.00405		0.00405	

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Other (%)										
Total Organic Carbon	1	1			8.37	8.37	8.37		8.37	
% Water	1	1			122	122	122		122	
Lipid_percent	5	5			2.16	3.92	2.99	2.36		3.92

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Pesticides/PCBs (ug/Kg)					
4,4'-DDD	1.45 J		1.31	1.89	
4,4'-DDE	2.3 J		2.02 J	1.83	
4,4'-DDT	0.77 UJ		0.9 U	0.61 U	
Aldrin	0.77 U		0.76 U	0.75 U	
alpha-BHC	0.77 U		0.76 U	0.75 U	
alpha-Chlordane	2.06		1.96	3.05	
Aroclor, Total	81.14		54.18 J	96.9	
Aroclor-1016	9.58 U		9.56 U	9.42 U	
Aroclor-1221	9.58 U		9.56 U	9.42 U	
Aroclor-1232	9.58 U		9.56 U	9.42 U	
Aroclor-1242	9.58 U		9.56 U	9.42 U	
Aroclor-1248	9.58 U		9.56 U	9.42 U	
Aroclor-1254	76.33		48.55	92.5	
Aroclor-1260	9.58 U		9.56 U	9.42 U	
Aroclor-1268	4.8 J		5.62 J	4.4 J	
beta-BHC	0.77 U		0.76 U	0.75 U	
delta-BHC	0.77 U		0.76 U	0.66 J	
Dieldrin	2.97		2.77	2.82	
Endosulfan I	0.77 U		0.76 U	0.75 U	
Endosulfan II	0.77 U		0.76 U	0.75 U	
Endosulfan Sulfate	4.26		2.22	2.52	
Endrin	0.77 U		0.76 U	0.75 U	
Endrin Aldehyde	0.77 U		0.76 U	0.75 U	
Endrin Ketone	0.77 U		0.76 U	0.75 U	
gamma-BHC	0.77 U		0.76 U	0.75 U	
gamma-Chlordane	1.97		2.85	5.18	
Heptachlor	0.77 U		0.76 U	0.75 U	
Heptachlor Epoxide	1.27		0.66 J	0.13 J	
Methoxychlor	3.03		4	0.75 U	
Technical Chlordane	59.51 J		79.89 J	119.24	
Toxaphene	19.16 U		19.12 U	18.83 U	
Inorganics (mg/Kg)					
Aluminum	2489 J		4325 J		5581 J
Antimony	0.189		0.241		0.22
Arsenic	0.61		0.6		0.592
Barium	29.4		51.5		47.7

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Beryllium	0.179 J		0.297 J		0.287 J
Cadmium	2.85		1.72		2.51
Chromium	7.07		9.63		7.93
Cobalt	0.704		1.12		1.07
Copper	9.33		11.7		11.4
Iron	1536		2583		2527
Lead	54.6 J		20.1 J		21.3 J
Manganese	85.6		256		169
Mercury	0.0371		0.0535		0.0472
Mercury (methyl)	0.0023		0.00305		0.00346
Molybdenum	1.18		1.37		1.14
Nickel	2.59		3.01		2.89
Selenium	0.354 J		0.251 J		0.382 J
Silver	0.0691		0.105		0.0655
Thallium	0.063		0.0645		0.0757
Vanadium	3.64		5.21		5.76
Zinc	93.2		83.8		116
Dioxins/Furans (ug/Kg)					
HCX	8.68996 J		8.65147 J		4.07407 J
TCX	0.00248 U		0.00248 U		R
2,3,7,8-TCDD	0.2155 J		0.18006 J		0.12294 J
1,2,3,7,8-PeCDD	0.00067 J		0.00075 J		0.00084 J
1,2,3,4,7,8-HxCDD	0.00105 J		0.00139 J		0.00161 J
1,2,3,6,7,8-HxCDD	0.00279 J		0.00444 J		0.0046
1,2,3,7,8,9-HxCDD	0.00252 J		0.00364 J		0.00508
1,2,3,4,6,7,8-HpCDD	0.06946 J		0.10719 J		0.11659 J
OCDD	0.47201 J		0.75424 J		0.77502 J
2,3,7,8-TCDF	0.00067 #		0.0005 U		0.00338 UJ
1,2,3,7,8-PeCDF	0.00248 U		0.00248 U		0.00047 UJ
2,3,4,7,8-PeCDF	0.00248 U		0.00034 J		0.00055 UJ
1,2,3,4,7,8-HxCDF	0.00129 J		0.00205 J		0.00127 J
1,2,3,6,7,8-HxCDF	0.00097 J		0.00179 J		0.00108 J
2,3,4,6,7,8-HxCDF	0.00069 J		0.00092 J		0.00074 J
1,2,3,7,8,9-HxCDF	0.00248 U		0.00248 U		0.00036 UJ
1,2,3,4,6,7,8-HpCDF	0.01613 J		0.02704 J		0.01835 J
1,2,3,4,7,8,9-HpCDF	0.0008 J		0.00132 J		0.00111 J
OCDF	0.03744 J		0.06423 J		0.04469 J

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Total TCDD	0.2155 J		0.18006 J		0.12294 J
Total PeCDD	0.00301 J		0.00217 J		0.00359 J
Total HxCDD	0.02298 J		0.02934 J		0.04134 J
Total HpCDD	0.14302 J		0.21329 J		0.31616 J
Total TCDF	0.00116 J		0.00304 UJ		0.00338 UJ
Total PeCDF	0.03758 J		0.01987 J		0.01196 J
Total HxCDF	0.03104 J		0.03416 J		0.02554 J
Total HpCDF	0.03689 J		0.06019 J		0.0412 J
Toxicity Equivalency (Dioxins, Furans, HCX)	0.22		0.186		0.127
PCB Congeners (ug/Kg)					
2-Monochlorobiphenyl (1)					
4-Chlorobiphenyl (3)					
2,2'-Dichlorobiphenyl (4)					
2,3-Dichlorobiphenyl (5)					
2,3'-Dichlorobiphenyl (6)					
2,4-Dichlorobiphenyl (7)					
2,4'-Dichlorobiphenyl (8)					
2,5-Dichlorobiphenyl (9)					
2,6-Dichlorobiphenyl (10)					
3,4-Dichlorobiphenyl (12)					
2,2',3'-Trichlorobiphenyl (16)					
2,2',4-Trichlorobiphenyl (17)					
2,2',5-Trichlorobiphenyl (18)					
2,2',6-Trichlorobiphenyl (19)					
2,3,3'-Trichlorobiphenyl (20)					
2,3,4'-Trichlorobiphenyl (22)					
2,3',4-Trichlorobiphenyl (25)					
2,3',5-Trichlorobiphenyl (26)					
2,4',5-Trichlorobiphenyl (31)					
2,4',6-Trichlorobiphenyl (32)					
2,2',3,3'-Tetrachlorobiphenyl (40)					
2,2',3,4'-Tetrachlorobiphenyl (42)					
2,2',3,5-Tetrachlorobiphenyl (43)					
2,2',3,5'-Tetrachlorobiphenyl (44)					
2,2',3,6-Tetrachlorobiphenyl (45)					
2,2',3,6'-Tetrachlorobiphenyl (46)					
2,2',4,5-Tetrachlorobiphenyl (48)					

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Table A-30
Summary Statistics and Analytical Results for Earthworm - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	CMS-EW-4002-0000-01 7/18/2001	CMS-EW-4003-0000-01 7/19/2001 DUPLICATE	CMS-EW-4003-0000-01 7/19/2001	CMS-EW-4005-0000-01 7/20/2001	LPX-EW-4005-0000-01 7/20/2001
2,2',4,5'-Tetrachlorobiphenyl (49)					
2,2',4,6-Tetrachlorobiphenyl (50)					
2,3,3',4'-Tetrachlorobiphenyl (56)					
2,3,3',6-Tetrachlorobiphenyl (59)					
2,3,4,4'-Tetrachlorobiphenyl (60)					
2,3,4,5-Tetrachlorobiphenyl (61)					
2,3,4',5-Tetrachlorobiphenyl (63)					
2,3,4',6-Tetrachlorobiphenyl (64)					
2,3',4,4'-Tetrachlorobiphenyl (66)					
3,3',4,4'-Tetrachlorobiphenyl (77)					
3,4,4',5-Tetrachlorobiphenyl (81)					
2,2',3,3',4-Pentachlorobiphenyl (82)					
2,2',3,3',5-Pentachlorobiphenyl (83)					
2,2',3,3',6-Pentachlorobiphenyl (84)					
2,2',3,4,4'-Pentachlorobiphenyl (85)					
2,2',3,4,5-Pentachlorobiphenyl (86)					
2,2',3,4,6-Pentachlorobiphenyl (88)					
2,2',3,4,6'-Pentachlorobiphenyl (89)					
2,2',3,4',5-Pentachlorobiphenyl (90)					
2,2',3,5,5'-Pentachlorobiphenyl (92)					
2,2',3,5,6-Pentachlorobiphenyl (93)					
2,2',3,5',6-Pentachlorobiphenyl (95)					
2,3,3',4,4'-Pentachlorobiphenyl (105)					
2,3,3',4,5-Pentachlorobiphenyl (106)					
2,3,3',4',5'-Pentachlorobiphenyl (108)					
2,3,3',4',6-Pentachlorobiphenyl (110)					
2,3,4,4',5-Pentachlorobiphenyl (114)					
2,3',4,4',5-Pentachlorobiphenyl (118)					
3,3',4,4',5-Pentachlorobiphenyl (126)					
2,2',3,3',4,4'-Hexachlorobiphenyl (128)					
2,2',3,3',4,5-Hexachlorobiphenyl (129)					
2,2',3,3',4,5'-Hexachlorobiphenyl (130)					
2,2',3,3',4,6-Hexachlorobiphenyl (131)					
2,2',3,3',4,6'-Hexachlorobiphenyl (132)					
2,2',3,3',5,6-Hexachlorobiphenyl (134)					
2,2',3,3',5,6'-Hexachlorobiphenyl (135)					
2,2',3,3',6,6'-Hexachlorobiphenyl (136)					

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Table A-30
Summary Statistics and Analytical Results for Earthworm - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	CMS-EW-4002-0000-01 7/18/2001	CMS-EW-4003-0000-01 7/19/2001 DUPLICATE	CMS-EW-4003-0000-01 7/19/2001	CMS-EW-4005-0000-01 7/20/2001	LPX-EW-4005-0000-01 7/20/2001
2,2',3,4,4',5-Hexachlorobiphenyl (137)					
2,2',3,4,5,5'-Hexachlorobiphenyl (141)					
2,2',3,4,5',6-Hexachlorobiphenyl (144)					
2,2',3,4',5,5'-Hexachlorobiphenyl (146)					
2,2',3,4',5,6-Hexachlorobiphenyl (147)					
2,2',4,4',5,5'-Hexachlorobiphenyl (153)					
2,3,3',4,4',5-Hexachlorobiphenyl (156)					
2,3,3',4,4',6-Hexachlorobiphenyl (158)					
2,3',4,4',5,5'-Hexachlorobiphenyl (167)					
3,3',4,4',5,5'-Hexachlorobiphenyl (169)					
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)					
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)					
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)					
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)					
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)					
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)					
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)					
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)					
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)					
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)					
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)					
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)					
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)					
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)					
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)					
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)					
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)					
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)					
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)					
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)					
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)					
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)					
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)					
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl					
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl					
Decachlorobiphenyl (209)					
PCB Congeners, Total					
Toxicity Equivalency (PCB)					

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Table A-30
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Centredale Manor Restoration Project Superfund Site
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PARAMETER	CMS-EW-4002-0000-01 7/18/2001	CMS-EW-4003-0000-01 7/19/2001 DUPLICATE	CMS-EW-4003-0000-01 7/19/2001	CMS-EW-4005-0000-01 7/20/2001	LPX-EW-4005-0000-01 7/20/2001
Other (%)					
Total Organic Carbon					
% Water					
Lipid_percent	2.67	3.14	2.16	3.04	

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Table A-31
Summary Statistics and Analytical Results for Earthworm - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EW-4004-0000-01 7/19/2001	LPX-EW-4006-0000-01 7/19/2001	LPX-EW-4007-0000-01 7/19/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	2	3	0.9	0.9	1.04	2.17	1.22	1.04 J	0.9 U	2.17
4,4'-DDE	3	3			1.81	5.24	3.22	2.61 J	1.81	5.24
4,4'-DDT	3	3			0.11	7.17	2.80	0.11 J	1.11	7.17
Aldrin	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
alpha-BHC	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
alpha-Chlordane	3	3			1.06	3.17	2.38	1.06	3.17	2.91
Aroclor, Total	3	3			26.58	60.09	41.97	60.09 J	26.58 J	39.25 J
Aroclor-1016	0	3	9.14	11.28			4.98	9.44 U	11.28 U	9.14 U
Aroclor-1221	0	3	9.14	11.28			4.98	9.44 U	11.28 U	9.14 U
Aroclor-1232	0	3	9.14	11.28			4.98	9.44 U	11.28 U	9.14 U
Aroclor-1242	0	3	9.14	11.28			4.98	9.44 U	11.28 U	9.14 U
Aroclor-1248	0	3	9.14	11.28			4.98	9.44 U	11.28 U	9.14 U
Aroclor-1254	3	3			24.44	53.26	34.69	53.26	24.44	26.36
Aroclor-1260	0	3	9.14	11.28			4.98	9.44 U	11.28 U	9.14 U
Aroclor-1268	3	3			2.13	12.9	7.28	6.82 J	2.13 J	12.9
beta-BHC	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
delta-BHC	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
Dieldrin	3	3			0.41	1.19	0.82	1.19	0.41 J	0.86
Endosulfan I	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
Endosulfan II	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
Endosulfan Sulfate	3	3			0.87	1.39	1.09	1.39	1.02	0.87
Endrin	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
Endrin Aldehyde	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
Endrin Ketone	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
gamma-BHC	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
gamma-Chlordane	3	3			0.06	3.01	1.31	0.85	0.06 J	3.01
Heptachlor	0	3	0.73	0.9			0.40	0.76 U	0.9 U	0.73 U
Heptachlor Epoxide	2	3	0.9	0.9	0.3	0.86	0.54	0.3 J	0.9 U	0.86
Methoxychlor	2	3	0.76	0.76	0.37	2.13	0.96	0.76 U	0.37 J	2.13
Technical Chlordane	3	3			22.86	76.61	42.16	27.02 J	22.86 J	76.61 J
Toxaphene	0	3	18.29	22.56			9.96	18.89 U	22.56 U	18.29 U
Inorganics (mg/Kg)										
Aluminum	3	3			1306	3462	2333	2231 J	1306 J	3462 J
Antimony	3	3			0.103	0.198	0.137	0.103	0.111	0.198
Arsenic	3	3			0.52	1.17	0.739	0.52	1.17	0.526
Barium	3	3			22.1	31.7	27.8	22.1	31.7	29.5
Beryllium	3	3			0.0481	0.173	0.119	0.135 J	0.0481 J	0.173 J

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Table A-31
Summary Statistics and Analytical Results for Earthworm - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EW-4004-0000-01 7/19/2001	LPX-EW-4006-0000-01 7/19/2001	LPX-EW-4007-0000-01 7/19/2001
Cadmium	3	3			3.01	7.78	5.29	7.78	3.01	5.09
Chromium	3	3			3.03	3.21	3.15	3.2	3.03	3.21
Cobalt	3	3			0.386	0.756	0.627	0.739	0.386	0.756
Copper	3	3			4.3	10.7	7.38	4.3	10.7	7.13
Iron	3	3			1056	1580	1260	1135	1066	1580
Lead	3	3			34.7	99.5	64.0	99.5 J	34.7 J	57.8 J
Manganese	3	3			23.5	75	47.1	75	23.5	42.9
Mercury	3	3			0.0302	0.151	0.0720	0.151	0.0349	0.0302
Mercury (methyl)	3	3			0.00084	0.00157	0.00111	0.00157 J	0.00084 J	0.000927 J
Molybdenum	3	3			0.158	0.462	0.280	0.462	0.158	0.219
Nickel	3	3			0.946	1.63	1.26	1.19	0.946	1.63
Selenium	3	3			0.328	5.22	2.00	5.22 J	0.328 J	0.452 J
Silver	3	3			0.0533	0.182	0.104	0.0759	0.0533	0.182
Thallium	3	3			0.0338	0.0681	0.0562	0.0681	0.0338	0.0567
Vanadium	3	3			1.91	3.44	2.63	2.53	1.91	3.44
Zinc	3	3			141	214	173	214	141	165
Dioxins/Furans (ug/Kg)										
HCX	1	3	0.01993	0.01998	0.40506	0.40506	0.14167	0.40506 J	0.01998 U	0.01993 U
TCX	0	3	0.00249	0.00498			0.00166	0.00498 U	0.0025 U	0.00249 U
2,3,7,8-TCDD	3	3			0.00304	0.07954	0.02915	0.07954 J	0.00488 J	0.00304 J
1,2,3,7,8-PeCDD	2	3	0.00498	0.00498	0.00018	0.0013	0.00132	0.00498 U	0.00018 J	0.0013 J
1,2,3,4,7,8-HxCDD	2	3	0.00498	0.00498	0.00016	0.0037	0.00212	0.00498 U	0.00016 J	0.0037 J
1,2,3,6,7,8-HxCDD	3	3			0.00052	0.00906	0.00337	0.00052 J	0.00053 J	0.00906 J
1,2,3,7,8,9-HxCDD	3	3			0.0004	0.00956	0.00349	0.0004 J	0.0005 J	0.00956 J
1,2,3,4,6,7,8-HpCDD	3	3			0.00883	0.24013	0.08735	0.01308 J	0.00883 J	0.24013 J
OCDD	3	3			0.05121	1.64885	0.59827	0.09474 J	0.05121 J	1.64885 J
2,3,7,8-TCDF	2	3	0.0005	0.0005	0.00016	0.00048	0.00030	0.00048 J	0.00016 J#	0.0005 U
1,2,3,7,8-PeCDF	0	3	0.00249	0.00498			0.00166	0.00498 U	0.0025 U	0.00249 U
2,3,4,7,8-PeCDF	1	3	0.00249	0.0025	0.00028	0.00028	0.00093	0.00028 J	0.0025 U	0.00249 U
1,2,3,4,7,8-HxCDF	3	3			0.00044	0.0036	0.00160	0.00044 J	0.00075 J	0.0036 J
1,2,3,6,7,8-HxCDF	2	3	0.00498	0.00498	0.00029	0.00379	0.00219	0.00498 U	0.00029 J	0.00379 J
2,3,4,6,7,8-HxCDF	2	3	0.00498	0.00498	0.00035	0.00255	0.00180	0.00498 U	0.00035 J	0.00255 J
1,2,3,7,8,9-HxCDF	0	3	0.00249	0.00498			0.00166	0.00498 U	0.0025 U	0.00249 U
1,2,3,4,6,7,8-HpCDF	3	3			0.00265	0.11506	0.04075	0.00453	0.00265 J	0.11506 J
1,2,3,4,7,8,9-HpCDF	3	3			0.00015	0.00536	0.00193	0.00029 J	0.00015 J	0.00536 J
OCDF	3	3			0.00438	0.26543	0.09307	0.00941	0.00438 J	0.26543 J
Total TCDD	3	3			0.00304	0.07954	0.02915	0.07954 J	0.00488 J	0.00304 J
Total PeCDD	2	3	0.00498	0.00498	0.00151	0.00362	0.00254	0.00498 U	0.00151 J	0.00362 J

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EW-4004-0000-01 7/19/2001	LPX-EW-4006-0000-01 7/19/2001	LPX-EW-4007-0000-01 7/19/2001
Total HxCDD	3	3			0.00448	0.05986	0.02327	0.00448 J	0.00547 J	0.05986 J
Total HpCDD	3	3			0.01808	0.44693	0.16452	0.02854 J	0.01808 J	0.44693 J
Total TCDF	2	3	0.00451	0.00451	0.00082	0.00114	0.00141	0.00082 J	0.00114 J	0.00451 UJ
Total PeCDF	3	3			0.00423	0.04059	0.01964	0.04059 J	0.00423 J	0.01411 J
Total HxCDF	3	3			0.00568	0.09647	0.03660	0.00766 J	0.00568 J	0.09647 J
Total HpCDF	3	3			0.0053	0.24938	0.08805	0.00946 J	0.0053 J	0.24938 J
Toxicity Equivalency (Dioxins, Furans, HCX)	3	3			0.00546	0.0801	0.0323	0.0801	0.00546	0.0114
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	1	1			0.01073	0.01073	0.01073	0.01073 J		
4-Chlorobiphenyl (3)	1	1			0.0136	0.0136	0.01360	0.0136 J		
2,2'-Dichlorobiphenyl (4)	1	1			0.02346	0.02346	0.02346	0.02346 J		
2,3-Dichlorobiphenyl (5)	0	1	0.00996	0.00996			0.00498	0.00996 U		
2,3'-Dichlorobiphenyl (6)	0	1	0.00996	0.00996			0.00498	0.00996 U		
2,4-Dichlorobiphenyl (7)	0	1	0.00996	0.00996			0.00498	0.00996 U		
2,4'-Dichlorobiphenyl (8)	1	1			0.07336	0.07336	0.07336	0.07336 J		
2,5-Dichlorobiphenyl (9)	0	1	0.00996	0.00996			0.00498	0.00996 U		
2,6-Dichlorobiphenyl (10)	0	1	0.00996	0.00996			0.00498	0.00996 U		
3,4-Dichlorobiphenyl (12)	0	1	0.01992	0.01992			0.00996	0.01992 UC		
2,2',3'-Trichlorobiphenyl (16)	1	1			0.0357	0.0357	0.03570	0.0357 C		
2,2',4-Trichlorobiphenyl (17)	1	1			0.04428	0.04428	0.04428	0.04428 J		
2,2',5-Trichlorobiphenyl (18)	1	1			0.09832	0.09832	0.09832	0.09832 JC		
2,2',6-Trichlorobiphenyl (19)	1	1			0.00674	0.00674	0.00674	0.00674 J		
2,3,3'-Trichlorobiphenyl (20)	1	1			0.43888	0.43888	0.43888	0.43888 C		
2,3,4'-Trichlorobiphenyl (22)	1	1			0.09287	0.09287	0.09287	0.09287 J		
2,3',4-Trichlorobiphenyl (25)	1	1			0.02071	0.02071	0.02071	0.02071 J		
2,3',5-Trichlorobiphenyl (26)	1	1			0.0489	0.0489	0.04890	0.0489 C		
2,4',5-Trichlorobiphenyl (31)	1	1			0.30285	0.30285	0.30285	0.30285 J		
2,4',6-Trichlorobiphenyl (32)	1	1			0.04111	0.04111	0.04111	0.04111		
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			0.28653	0.28653	0.28653	0.28653 C		
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			0.20485	0.20485	0.20485	0.20485 J		
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			2.09871	2.09871	2.09871	2.09871 C		
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			0.89397	0.89397	0.89397	0.89397 C		
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.0531	0.0531	0.05310	0.0531 C		
2,2',3,6'-Tetrachlorobiphenyl (46)	1	1			0.01298	0.01298	0.01298	0.01298 J		
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			0.09298	0.09298	0.09298	0.09298 J		
2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			0.81102	0.81102	0.81102	0.81102 C		
2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.05548	0.05548	0.05548	0.05548 C		
2,3,3',4'-Tetrachlorobiphenyl (56)	1	1			0.29953	0.29953	0.29953	0.29953 J		

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EW-4004-0000-01 7/19/2001	LPX-EW-4006-0000-01 7/19/2001	LPX-EW-4007-0000-01 7/19/2001
2,3,3',6-Tetrachlorobiphenyl (59)	1	1			0.06093	0.06093	0.06093	0.06093 C		
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			0.09902	0.09902	0.09902	0.09902 J		
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			1.92668	1.92668	1.92668	1.92668 C		
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.03627	0.03627	0.03627	0.03627 J		
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			0.4073	0.4073	0.40730	0.4073 J		
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			1.04681	1.04681	1.04681	1.04681 J		
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.07839	0.07839	0.07839	0.07839 J		
3,4,4',5-Tetrachlorobiphenyl (81)	0	1	0.09961	0.09961			0.04981	0.09961 U		
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			0.39716	0.39716	0.39716	0.39716 J		
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			2.7339	2.7339	2.73390	2.7339 C		
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			0.90345	0.90345	0.90345	0.90345 J		
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			0.73425	0.73425	0.73425	0.73425 C		
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			3.15588	3.15588	3.15588	3.15588 C		
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			0.58336	0.58336	0.58336	0.58336 C		
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.01496	0.01496	0.01496	0.01496 J		
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			6.26694	6.26694	6.26694	6.26694 C		
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			1.2724	1.2724	1.27240	1.2724 J		
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			0.10452	0.10452	0.10452	0.10452 C		
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			4.58202	4.58202	4.58202	4.58202 J		
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			1.1317	1.1317	1.13170	1.1317 J		
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			0.39821	0.39821	0.39821	0.39821 C		
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.21448	0.21448	0.21448	0.21448 C		
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			6.54174	6.54174	6.54174	6.54174 C		
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			0.05087	0.05087	0.05087	0.05087 J		
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			3.69207	3.69207	3.69207	3.69207 J		
3,3',4,4',5-Pentachlorobiphenyl (126)	1	1			0.01211	0.01211	0.01211	0.01211 J		
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			1.09234	1.09234	1.09234	1.09234 C		
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			7.34584	7.34584	7.34584	7.34584 C		
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			0.43763	0.43763	0.43763	0.43763 J		
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.07211	0.07211	0.07211	0.07211 J		
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			1.7926	1.7926	1.79260	1.7926 J		
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1	1			0.23208	0.23208	0.23208	0.23208 C		
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			2.04696	2.04696	2.04696	2.04696 C		
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1	1			0.66664	0.66664	0.66664	0.66664 J		
2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			0.98272	0.98272	0.98272	0.98272 C		
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			0.84406	0.84406	0.84406	0.84406 J		
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			0.17055	0.17055	0.17055	0.17055 J		
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			1.54402	1.54402	1.54402	1.54402 C		

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Table A-31
Summary Statistics and Analytical Results for Earthworm - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EW-4004-0000-01 7/19/2001	LPX-EW-4006-0000-01 7/19/2001	LPX-EW-4007-0000-01 7/19/2001
2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			9.49206	9.49206	9.49206	9.49206 C		
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			4.69094	4.69094	4.69094	4.69094 C		
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			0.58664	0.58664	0.58664	0.58664 C		
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			0.47655	0.47655	0.47655	0.47655 J		
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			0.23964	0.23964	0.23964	0.23964 J		
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.04288	0.04288	0.04288	0.04288 J		
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			0.59442	0.59442	0.59442	0.59442 J		
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			0.19782	0.19782	0.19782	0.19782 JC		
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			0.1633	0.1633	0.16330	0.1633 J		
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			1.13853	1.13853	1.13853	1.13853 C		
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	1	1			0.0276	0.0276	0.02760	0.0276 J		
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.06648	0.06648	0.06648	0.06648 J		
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			0.43737	0.43737	0.43737	0.43737 J		
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			0.21465	0.21465	0.21465	0.21465 J		
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			1.31342	1.31342	1.31342	1.31342 C		
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	1	1			0.00641	0.00641	0.00641	0.00641 J		
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.00212	0.00212	0.00212	0.00212 J		
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			4.80196	4.80196	4.80196	4.80196 J		
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.02795	0.02795	0.02795	0.02795 J		
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			0.07158	0.07158	0.07158	0.07158 J		
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.02201	0.02201	0.02201	0.02201 J		
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			0.1818	0.1818	0.18180	0.1818 J		
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			0.06068	0.06068	0.06068	0.06068 J		
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			0.12926	0.12926	0.12926	0.12926 J		
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	1	1			0.05242	0.05242	0.05242	0.05242 JC		
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			1.4831	1.4831	1.48310	1.4831 C		
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.08723	0.08723	0.08723	0.08723 J		
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			0.42868	0.42868	0.42868	0.42868 J		
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	0	1	0.19923	0.19923			0.09962	0.19923 U		
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			1.7386	1.7386	1.73860	1.7386 J		
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.11895	0.11895	0.11895	0.11895 J		
Decachlorobiphenyl (209)	1	1			1.76415	1.76415	1.76415	1.76415 J		
PCB Congeners, Total	1	1			90.36176	90.36176	90.36176	90.36176 J		
Toxicity Equivalency (PCB)	1	1			0.00245	0.00245	0.00245	0.00245		

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Table A-31
Summary Statistics and Analytical Results for Earthworm - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EW-4004-0000-01 7/19/2001	LPX-EW-4006-0000-01 7/19/2001	LPX-EW-4007-0000-01 7/19/2001
Other (%)										
Lipid_percent	3	3			2.21	3.08	2.53	2.29	2.21	3.08

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Table A-32
Summary Statistics and Analytical Results for Emerging Insect - Upstream

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-EI-5001-5005-0000-01 7/20/2001
Dioxins/Furans (ug/Kg)								
HCX	0	1	0.07907	0.07907			0.03954	0.07907 U
TCX	0	1	0.00988	0.00988			0.00494	0.00988 U
2,3,7,8-TCDD	1	1			0.00141	0.00141	0.00141	0.00141 J
1,2,3,7,8-PeCDD	0	1	0.00988	0.00988			0.00494	0.00988 U
1,2,3,4,7,8-HxCDD	1	1			0.00019	0.00019	0.00019	0.00019 J
1,2,3,6,7,8-HxCDD	1	1			0.0006	0.0006	0.00060	0.0006 J
1,2,3,7,8,9-HxCDD	1	1			0.00024	0.00024	0.00024	0.00024 J
1,2,3,4,6,7,8-HpCDD	1	1			0.00308	0.00308	0.00308	0.00308 J
OCDD	1	1			0.00801	0.00801	0.00801	0.00801 J
2,3,7,8-TCDF	1	1			0.00077	0.00077	0.00077	0.00077 EJ
1,2,3,7,8-PeCDF	1	1			0.00029	0.00029	0.00029	0.00029 J
2,3,4,7,8-PeCDF	0	1	0.00988	0.00988			0.00494	0.00988 U
1,2,3,4,7,8-HxCDF	1	1			0.00041	0.00041	0.00041	0.00041 J
1,2,3,6,7,8-HxCDF	1	1			0.0002	0.0002	0.00020	0.0002 J
2,3,4,6,7,8-HxCDF	0	1	0.00988	0.00988			0.00494	0.00988 U
1,2,3,7,8,9-HxCDF	0	1	0.00988	0.00988			0.00494	0.00988 U
1,2,3,4,6,7,8-HpCDF	1	1			0.00081	0.00081	0.00081	0.00081 J
1,2,3,4,7,8,9-HpCDF	0	1	0.00988	0.00988			0.00494	0.00988 U
OCDF	1	1			0.00042	0.00042	0.00042	0.00042 J
Total TCDD	1	1			0.00189	0.00189	0.00189	0.00189 J
Total PeCDD	0	1	0.00988	0.00988			0.00494	0.00988 U
Total HxCDD	1	1			0.00219	0.00219	0.00219	0.00219 J
Total HpCDD	1	1			0.00512	0.00512	0.00512	0.00512 J
Total TCDF	1	1			0.00077	0.00077	0.00077	0.00077 J
Total PeCDF	1	1			0.00157	0.00157	0.00157	0.00157 J
Total HxCDF	1	1			0.00176	0.00176	0.00176	0.00176 J
Total HpCDF	1	1			0.00107	0.00107	0.00107	0.00107 J
Toxicity Equivalency (Dioxins, Furans, HCX)	1	1			0.00171	0.00171	0.00171	0.00171
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)	1	1			0.02141	0.02141	0.02141	0.02141 J
4-Chlorobiphenyl (3)	1	1			0.01263	0.01263	0.01263	0.01263 J
2,2'-Dichlorobiphenyl (4)	0	1	0.04825	0.04825			0.02413	0.04825 UJ
2,3-Dichlorobiphenyl (5)	0	1	0.01977	0.01977			0.00989	0.01977 UJ
2,3'-Dichlorobiphenyl (6)	0	1	0.01977	0.01977			0.00989	0.01977 UJ
2,4-Dichlorobiphenyl (7)	0	1	0.01977	0.01977			0.00989	0.01977 UJ
2,4'-Dichlorobiphenyl (8)	0	1	0.19767	0.19767			0.09884	0.19767 UJ
2,5-Dichlorobiphenyl (9)	0	1	0.01977	0.01977			0.00989	0.01977 UJ
2,6-Dichlorobiphenyl (10)	0	1	0.01977	0.01977			0.00989	0.01977 UJ
3,4-Dichlorobiphenyl (12)	0	1	0.03953	0.03953			0.01977	0.03953 UCJ

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Summary Statistics and Analytical Results for Emerging Insect - Upstream

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Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-EI-5001-5005-0000-01 7/20/2001
2,2',3'-Trichlorobiphenyl (16)	1	1			0.02352	0.02352	0.02352	0.02352 JC
2,2',4-Trichlorobiphenyl (17)	1	1			0.02859	0.02859	0.02859	0.02859 J
2,2',5-Trichlorobiphenyl (18)	1	1			0.05704	0.05704	0.05704	0.05704 JC
2,2',6-Trichlorobiphenyl (19)	1	1			0.00578	0.00578	0.00578	0.00578 J
2,3,3'-Trichlorobiphenyl (20)	1	1			0.11168	0.11168	0.11168	0.11168 JC
2,3,4'-Trichlorobiphenyl (22)	0	1	0.07907	0.07907			0.03954	0.07907 U
2,3',4-Trichlorobiphenyl (25)	1	1			0.00292	0.00292	0.00292	0.00292 J
2,3',5-Trichlorobiphenyl (26)	1	1			0.00604	0.00604	0.00604	0.00604 JC
2,4',5-Trichlorobiphenyl (31)	1	1			0.04638	0.04638	0.04638	0.04638 J
2,4',6-Trichlorobiphenyl (32)	1	1			0.01484	0.01484	0.01484	0.01484 J
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			0.04977	0.04977	0.04977	0.04977 JC
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			0.03102	0.03102	0.03102	0.03102 J
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			0.2871	0.2871	0.28710	0.2871 C
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			0.12435	0.12435	0.12435	0.12435 JC
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.00724	0.00724	0.00724	0.00724 JC
2,2',3,6'-Tetrachlorobiphenyl (46)	1	1			0.00236	0.00236	0.00236	0.00236 J
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			0.00993	0.00993	0.00993	0.00993 J
2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			0.13388	0.13388	0.13388	0.13388 JC
2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.00338	0.00338	0.00338	0.00338 JC
2,3,3',4'-Tetrachlorobiphenyl (56)	1	1			0.03207	0.03207	0.03207	0.03207 J
2,3,3',6-Tetrachlorobiphenyl (59)	1	1			0.01158	0.01158	0.01158	0.01158 JC
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			0.05691	0.05691	0.05691	0.05691 J
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			0.39628	0.39628	0.39628	0.39628 C
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.0236	0.0236	0.02360	0.0236 J
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			0.07581	0.07581	0.07581	0.07581 J
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			0.17611	0.17611	0.17611	0.17611 J
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.05093	0.05093	0.05093	0.05093 J
3,4,4',5-Tetrachlorobiphenyl (81)	0	1	0.19767	0.19767			0.09884	0.19767 U
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			0.06249	0.06249	0.06249	0.06249 J
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			0.65928	0.65928	0.65928	0.65928 C
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			0.0519	0.0519	0.05190	0.0519 J
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			0.22956	0.22956	0.22956	0.22956 C
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			0.38334	0.38334	0.38334	0.38334 C
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			0.04196	0.04196	0.04196	0.04196 JC
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.00155	0.00155	0.00155	0.00155 J
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			0.71541	0.71541	0.71541	0.71541 C
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			0.11107	0.11107	0.11107	0.11107 J
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			0.00932	0.00932	0.00932	0.00932 JC
2,2',3,5',6-Pentachlorobiphenyl (95)	0	1	0.27505	0.27505			0.13753	0.27505 U
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			0.36259	0.36259	0.36259	0.36259

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-EI-5001-5005-0000-01 7/20/2001
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			0.0978	0.0978	0.09780	0.0978 JC
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.02046	0.02046	0.02046	0.02046 JC
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			0.53164	0.53164	0.53164	0.53164 C
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			0.03355	0.03355	0.03355	0.03355 J
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			1.03374	1.03374	1.03374	1.03374
3,3',4,4',5-Pentachlorobiphenyl (126)	1	1			0.00644	0.00644	0.00644	0.00644 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			0.36734	0.36734	0.36734	0.36734 C
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			2.04804	2.04804	2.04804	2.04804 C
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			0.1776	0.1776	0.17760	0.1776 J
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.01358	0.01358	0.01358	0.01358 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			0.14821	0.14821	0.14821	0.14821 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1	1			0.0262	0.0262	0.02620	0.0262 JC
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			0.2334	0.2334	0.23340	0.2334 C
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	0	1	0.07907	0.07907			0.03954	0.07907 U
2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			0.04464	0.04464	0.04464	0.04464 JC
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			0.12506	0.12506	0.12506	0.12506
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			0.03823	0.03823	0.03823	0.03823 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			0.4537	0.4537	0.45370	0.4537 C
2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			0.53298	0.53298	0.53298	0.53298 C
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			2.373	2.373	2.37300	2.373 C
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			0.33252	0.33252	0.33252	0.33252 C
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			0.11271	0.11271	0.11271	0.11271
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			0.05006	0.05006	0.05006	0.05006 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.18468	0.18468	0.18468	0.18468 J
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			0.41941	0.41941	0.41941	0.41941 J
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			0.0509	0.0509	0.05090	0.0509 JC
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			0.16597	0.16597	0.16597	0.16597 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			0.41022	0.41022	0.41022	0.41022 C
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	0	1	0.39534	0.39534			0.19767	0.39534 U
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.0114	0.0114	0.01140	0.0114 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			0.19384	0.19384	0.19384	0.19384 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			0.19091	0.19091	0.19091	0.19091 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			0.80024	0.80024	0.80024	0.80024 C
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	1	1			0.00325	0.00325	0.00325	0.00325 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.00224	0.00224	0.00224	0.00224 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			1.1267	1.1267	1.12670	1.1267 J
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.02961	0.02961	0.02961	0.02961 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			0.07673	0.07673	0.07673	0.07673 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.00683	0.00683	0.00683	0.00683 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			0.29931	0.29931	0.29931	0.29931 J

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Table A-32
Summary Statistics and Analytical Results for Emerging Insect - Upstream

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	GMP-EI-5001-5005-0000-01 7/20/2001
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			0.06532	0.06532	0.06532	0.06532 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			0.19822	0.19822	0.19822	0.19822 J
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	1	1			0.03888	0.03888	0.03888	0.03888 JC
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			2.11718	2.11718	2.11718	2.11718 C
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)	1	1			2.11718	2.11718	2.11718	2.11718 J
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.13917	0.13917	0.13917	0.13917 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			1.28052	1.28052	1.28052	1.28052 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	1	1			0.02882	0.02882	0.02882	0.02882 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			2.24565	2.24565	2.24565	2.24565
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.05341	0.05341	0.05341	0.05341 J
Decachlorobiphenyl (209)	0	1	0.19767	0.19767			0.09884	0.19767 U
PCB Congeners, Total	1	1			21.01888	21.01888	21.01888	21.01888
Toxicity Equivalency (PCB)	1	1			0.00282	0.00282	0.00282	0.00282

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Table A-33
Summary Statistics and Analytical Results for Emerging Insect - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EI-4006-4010-0000-01 7/20/2001
Dioxins/Furans (ug/Kg)								
HCX	1	1			0.16351	0.16351	0.16351	0.16351 JK
TCX	0	1	0.04733	0.04733			0.02367	0.04733 U
2,3,7,8-TCDD	1	1			0.24557	0.24557	0.24557	0.24557
1,2,3,7,8-PeCDD	0	1	0.04733	0.04733			0.02367	0.04733 U
1,2,3,4,7,8-HxCDD	0	1	0.04733	0.04733			0.02367	0.04733 U
1,2,3,6,7,8-HxCDD	1	1			0.00252	0.00252	0.00252	0.00252 J
1,2,3,7,8,9-HxCDD	0	1	0.04733	0.04733			0.02367	0.04733 U
1,2,3,4,6,7,8-HpCDD	1	1			0.01246	0.01246	0.01246	0.01246 J
OCDD	1	1			0.03134	0.03134	0.03134	0.03134 J
2,3,7,8-TCDF	1	1			0.00175	0.00175	0.00175	0.00175 J
1,2,3,7,8-PeCDF	0	1	0.04733	0.04733			0.02367	0.04733 U
2,3,4,7,8-PeCDF	0	1	0.04733	0.04733			0.02367	0.04733 U
1,2,3,4,7,8-HxCDF	0	1	0.04733	0.04733			0.02367	0.04733 U
1,2,3,6,7,8-HxCDF	0	1	0.04733	0.04733			0.02367	0.04733 U
2,3,4,6,7,8-HxCDF	0	1	0.04733	0.04733			0.02367	0.04733 U
1,2,3,7,8,9-HxCDF	0	1	0.04733	0.04733			0.02367	0.04733 U
1,2,3,4,6,7,8-HpCDF	1	1			0.00139	0.00139	0.00139	0.00139 J
1,2,3,4,7,8,9-HpCDF	0	1	0.04733	0.04733			0.02367	0.04733 U
OCDF	1	1			0.00143	0.00143	0.00143	0.00143 J
Total TCDD	1	1			0.24557	0.24557	0.24557	0.24557 J
Total PeCDD	0	1	0.04733	0.04733			0.02367	0.04733 U
Total HxCDD	1	1			0.00252	0.00252	0.00252	0.00252 J
Total HpCDD	1	1			0.01956	0.01956	0.01956	0.01956 J
Total TCDF	1	1			0.00175	0.00175	0.00175	0.00175 J
Total PeCDF	1	1			0.00386	0.00386	0.00386	0.00386 J
Total HxCDF	1	1			0.00091	0.00091	0.00091	0.00091 J
Total HpCDF	1	1			0.00277	0.00277	0.00277	0.00277 J
Toxicity Equivalency (Dioxins, Furans, HCX)	1	1			0.246	0.246	0.246	0.246
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)	1	1			0.06228	0.06228	0.06228	0.06228 J
4-Chlorobiphenyl (3)	1	1			0.05612	0.05612	0.05612	0.05612 J
2,2'-Dichlorobiphenyl (4)	1	1			0.11916	0.11916	0.11916	0.11916 J
2,3-Dichlorobiphenyl (5)	0	1	0.09466	0.09466			0.04733	0.09466 U
2,3'-Dichlorobiphenyl (6)	0	1	0.09466	0.09466			0.04733	0.09466 U
2,4-Dichlorobiphenyl (7)	0	1	0.09466	0.09466			0.04733	0.09466 U
2,4'-Dichlorobiphenyl (8)	0	1	0.94661	0.94661			0.47331	0.94661 U
2,5-Dichlorobiphenyl (9)	0	1	0.09466	0.09466			0.04733	0.09466 U
2,6-Dichlorobiphenyl (10)	0	1	0.09466	0.09466			0.04733	0.09466 U
3,4-Dichlorobiphenyl (12)	0	1	0.18932	0.18932			0.09466	0.18932 UC

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Table A-33
Summary Statistics and Analytical Results for Emerging Insect - Lyman Mill

Data Evaluation Report
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EI-4006-4010-0000-01 7/20/2001
2,2',3'-Trichlorobiphenyl (16)	1	1			0.08055	0.08055	0.08055	0.08055 JC
2,2',4-Trichlorobiphenyl (17)	1	1			0.07833	0.07833	0.07833	0.07833 J
2,2',5-Trichlorobiphenyl (18)	1	1			0.16444	0.16444	0.16444	0.16444 JC
2,2',6-Trichlorobiphenyl (19)	1	1			0.02112	0.02112	0.02112	0.02112 J
2,3,3'-Trichlorobiphenyl (20)	1	1			0.79884	0.79884	0.79884	0.79884 JC
2,3,4'-Trichlorobiphenyl (22)	1	1			0.12552	0.12552	0.12552	0.12552 J
2,3',4-Trichlorobiphenyl (25)	1	1			0.03694	0.03694	0.03694	0.03694 J
2,3',5-Trichlorobiphenyl (26)	1	1			0.06638	0.06638	0.06638	0.06638 JC
2,4',5-Trichlorobiphenyl (31)	1	1			0.44581	0.44581	0.44581	0.44581 J
2,4',6-Trichlorobiphenyl (32)	1	1			0.07694	0.07694	0.07694	0.07694 J
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			0.23589	0.23589	0.23589	0.23589 JC
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			0.18863	0.18863	0.18863	0.18863 J
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			1.58139	1.58139	1.58139	1.58139 C
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			0.80859	0.80859	0.80859	0.80859 JC
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.0459	0.0459	0.04590	0.0459 JC
2,2',3,6'-Tetrachlorobiphenyl (46)	1	1			0.01698	0.01698	0.01698	0.01698 J
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			0.07273	0.07273	0.07273	0.07273 J
2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			0.76958	0.76958	0.76958	0.76958 JC
2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.04412	0.04412	0.04412	0.04412 JC
2,3,3',4'-Tetrachlorobiphenyl (56)	1	1			0.25842	0.25842	0.25842	0.25842 J
2,3,3',6-Tetrachlorobiphenyl (59)	1	1			0.08277	0.08277	0.08277	0.08277 JC
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			0.28859	0.28859	0.28859	0.28859 J
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			3.02124	3.02124	3.02124	3.02124 C
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.14943	0.14943	0.14943	0.14943 J
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			0.44307	0.44307	0.44307	0.44307
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			1.41182	1.41182	1.41182	1.41182
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.30267	0.30267	0.30267	0.30267 J
3,4,4',5-Tetrachlorobiphenyl (81)	1	1			0.05602	0.05602	0.05602	0.05602 J
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			0.39457	0.39457	0.39457	0.39457 J
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			4.54992	4.54992	4.54992	4.54992 C
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			0.32395	0.32395	0.32395	0.32395 J
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			1.68102	1.68102	1.68102	1.68102 C
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			2.64036	2.64036	2.64036	2.64036 C
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			0.29032	0.29032	0.29032	0.29032 JC
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.00718	0.00718	0.00718	0.00718 J
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			5.1003	5.1003	5.10030	5.1003 C
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			0.84575	0.84575	0.84575	0.84575 J
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			0.06616	0.06616	0.06616	0.06616 JC
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			2.29407	2.29407	2.29407	2.29407
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			2.15238	2.15238	2.15238	2.15238

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Summary Statistics and Analytical Results for Emerging Insect - Lyman Mill

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EI-4006-4010-0000-01 7/20/2001
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			0.54119	0.54119	0.54119	0.54119 JC
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.15684	0.15684	0.15684	0.15684 JC
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			4.17058	4.17058	4.17058	4.17058 C
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			0.19542	0.19542	0.19542	0.19542 J
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			6.96465	6.96465	6.96465	6.96465
3,3',4,4',5-Pentachlorobiphenyl (126)	1	1			0.04714	0.04714	0.04714	0.04714 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			2.36564	2.36564	2.36564	2.36564 C
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			12.95112	12.95112	12.95112	12.95112 C
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			1.30826	1.30826	1.30826	1.30826
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.08361	0.08361	0.08361	0.08361 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			0.88622	0.88622	0.88622	0.88622 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)	0	1	0.94661	0.94661			0.47331	0.94661 UC
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			1.15029	1.15029	1.15029	1.15029 C
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1	1			0.16555	0.16555	0.16555	0.16555 J
2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			0.6421	0.6421	0.64210	0.6421 JC
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			0.66047	0.66047	0.66047	0.66047
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			0.22707	0.22707	0.22707	0.22707 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			2.76438	2.76438	2.76438	2.76438 C
2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			3.19822	3.19822	3.19822	3.19822 C
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			13.23906	13.23906	13.23906	13.23906 C
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			2.54708	2.54708	2.54708	2.54708 C
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			0.67759	0.67759	0.67759	0.67759
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			0.32932	0.32932	0.32932	0.32932 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.13821	0.13821	0.13821	0.13821 J
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			2.16442	2.16442	2.16442	2.16442
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			0.17654	0.17654	0.17654	0.17654 JC
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			0.40896	0.40896	0.40896	0.40896 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			0.89676	0.89676	0.89676	0.89676 JC
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	1	1			0.06151	0.06151	0.06151	0.06151 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.03262	0.03262	0.03262	0.03262 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			0.5645	0.5645	0.56450	0.5645 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			0.2707	0.2707	0.27070	0.2707 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			2.72234	2.72234	2.72234	2.72234 C
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	1	1			0.00341	0.00341	0.00341	0.00341 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.00089	0.00089	0.00089	0.00089 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			2.23432	2.23432	2.23432	2.23432
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.12933	0.12933	0.12933	0.12933 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			0.49187	0.49187	0.49187	0.49187 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.02656	0.02656	0.02656	0.02656 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			0.80615	0.80615	0.80615	0.80615 J

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Table A-33
Summary Statistics and Analytical Results for Emerging Insect - Lyman Mill

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	LPX-EI-4006-4010-0000-01 7/20/2001
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			0.15249	0.15249	0.15249	0.15249 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			0.28393	0.28393	0.28393	0.28393 J
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	1	1			0.03314	0.03314	0.03314	0.03314 JC
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			2.35904	2.35904	2.35904	2.35904 C
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (199)	1	1			2.35904	2.35904	2.35904	2.35904
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.10657	0.10657	0.10657	0.10657 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			1.41992	1.41992	1.41992	1.41992 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	1	1			0.05395	0.05395	0.05395	0.05395 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			3.18197	3.18197	3.18197	3.18197
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.14991	0.14991	0.14991	0.14991 J
Decachlorobiphenyl (209)	1	1			1.72218	1.72218	1.72218	1.72218 J
PCB Congeners, Total	1	1			104.46635	104.46635	104.46635	104.46635
Toxicity Equivalency (PCB)	1	1			0.00843	0.00843	0.00843	0.00843

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

US EPA ARCHIVE DOCUMENT

Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	A-TS-33-P 6/9/2001	A-TS-35-L 6/12/2001	A-TS-35-N 6/12/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	10	10			3.13	63.95	15.97	6.08 J		3.13
4,4'-DDE	10	10			3.34	480.85	109.71	262.14 J		63.95
4,4'-DDT	10	10			1.98	6.07	3.59	2.62 J		3.34
Aldrin	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
alpha-BHC	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
alpha-Chlordane	10	10			3.16	70.6	18.69	4.43 J		4.38 J
Aroclor, Total	10	10			279.72	1681.13	794.00	1681.13		279.72 J
Aroclor-1016	0	10	19.15	150.51			32.01	150.51 UJ		34.54 UJ
Aroclor-1221	0	10	19.15	150.51			32.01	150.51 UJ		34.54 UJ
Aroclor-1232	0	10	19.15	150.51			32.01	150.51 UJ		34.54 UJ
Aroclor-1242	0	10	19.15	150.51			32.01	150.51 UJ		34.54 UJ
Aroclor-1248	0	10	19.15	150.51			32.01	150.51 UJ		34.54 UJ
Aroclor-1254	10	10			258.53	1308.13	708.92	1308.13		258.53 J
Aroclor-1260	0	10	19.15	150.51			32.01	150.51 UJ		34.54 UJ
Aroclor-1268	10	10			21.04	373	85.09	373		21.19 J
beta-BHC	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
delta-BHC	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
Dieldrin	10	10			6.28	24.41	12.25	14.8		6.28 J
Endosulfan I	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
Endosulfan II	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
Endosulfan Sulfate	1	10	1.53	12.04	13.12	13.12	3.75	12.04 UJ		2.76 UJ
Endrin	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
Endrin Aldehyde	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
Endrin Ketone	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
gamma-BHC	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
gamma-Chlordane	3	10	2.76	12.04	1.85	18.6	5.20	12.04 UJ		2.76 UJ
Heptachlor	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
Heptachlor Epoxide	10	10			7.78	42.18	21.96	20.07 J		7.78 J
Methoxychlor	0	10	1.53	12.04			2.56	12.04 UJ		2.76 UJ
Technical Chlordane	10	10			333.22	835.88	506.78	393.21 J		337.55 J
Toxaphene	0	10	19.15	301.02			61.56	301.02 UJ		69.09 UJ
Inorganics (mg/Kg)										
Aluminum	0	5	0.884	1.13			0.540		1.13 UJ	
Antimony	0	5	0.034	0.034			0.0170		0.034 UJ	
Arsenic	0	5	0.034	0.0774			0.0267		0.034 UJ	
Barium	0	5	0.011	0.074			0.0189		0.0368 UJ	
Beryllium	0	5	0.005	0.005			0.00250		0.005 UJ	

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	A-TS-33-P 6/9/2001	A-TS-35-L 6/12/2001	A-TS-35-N 6/12/2001
Cadmium	1	5	0.201	0.201	0.0529	0.0529	0.0910		0.201 U	
Chromium	1	5	0.271	0.271	0.228	0.228	0.154		0.271 U	
Cobalt	0	5	0.379	0.379			0.190		0.379 U	
Copper	5	5			3.52	5.83	4.26		4.45	
Iron	5	5			189	445	284		285 J	
Lead	0	5	0.023	0.188			0.0330		0.0619 U	
Manganese	5	5			1.35	1.88	1.604		1.43	
Mercury	5	5			0.0401	0.0527	0.0460		0.0401	
Mercury (methyl)	5	5			0.0329	0.0447	0.0375		0.0329	
Molybdenum	5	5			0.478	0.758	0.614		0.478	
Nickel	0	5	0.323	0.323			0.162		0.323 U	
Selenium	1	5	0.493	0.555	0.774	0.774	0.368		0.493 U	
Silver	0	5	0.061	0.061			0.0305		0.061 U	
Thallium	0	5	0.023	0.023			0.0115		0.023 U	
Vanadium	0	5	0.18	0.18			0.0900		0.18 U	
Zinc	5	5			18.2	26.2	20.8		19.8 J	
Dioxins/Furans (ug/Kg)										
HCX	9	18	0.04288	0.13841	0.0118	0.08218	0.03564			0.0118 J
TCX	1	8	0.86	1.8	0.00306	0.00306	0.60413			R
2,3,7,8-TCDD	18	18			0.04182	3.00354	0.67116			0.59141 J
1,2,3,7,8-PeCDD	17	18	0.0054	0.0054	0.00265	0.02908	0.00741			0.00265 J
1,2,3,4,7,8-HxCDD	18	18			0.0027	0.02689	0.00760			0.00322 J
1,2,3,6,7,8-HxCDD	18	18			0.0083	0.18731	0.04572			0.01092 J
1,2,3,7,8,9-HxCDD	18	18			0.00223	0.01161	0.00598			0.00232 J
1,2,3,4,6,7,8-HpCDD	18	18			0.02436	0.40954	0.15531			0.03205 J
OCDD	12	18	0.02062	0.09758	0.01938	1.04296	0.20709			0.03289 UJ
2,3,7,8-TCDF	13	18	0.01246	0.0298	0.00587	0.01991	0.00937			0.00606 J
1,2,3,7,8-PeCDF	14	18	0.00221	0.00273	0.00118	0.00701	0.00307			0.00167 J
2,3,4,7,8-PeCDF	16	18	0.00266	0.00956	0.00208	0.01296	0.00504			0.00248 J
1,2,3,4,7,8-HxCDF	16	18	0.0028	0.00974	0.00153	0.01045	0.00482			0.0028 UJ
1,2,3,6,7,8-HxCDF	17	18	0.00961	0.00961	0.0018	0.00783	0.00416			0.002 J
2,3,4,6,7,8-HxCDF	17	18	0.0103	0.0103	0.00086	0.00561	0.00274			0.00131 J
1,2,3,7,8,9-HxCDF	2	18	0.00025	0.01157	0.00027	0.0004	0.00076			0.00157 UJ
1,2,3,4,6,7,8-HpCDF	18	18			0.00271	0.08447	0.02650			0.00579 J
1,2,3,4,7,8,9-HpCDF	8	18	0.00041	0.02097	0.00027	0.00447	0.00156			0.00213 UJ
OCDF	6	18	0.00059	0.03113	0.00932	0.06434	0.00985			0.00126 UJ
Total TCDD	18	18			0.04182	3.00354	0.67116			0.59141 J
Total PeCDD	1	18	0.00302	0.029	0.03288	0.03288	0.00577			0.00972 UJ

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	A-TS-33-P 6/9/2001	A-TS-35-L 6/12/2001	A-TS-35-N 6/12/2001
Total HxCDD	18	18			0.0134	0.24021	0.06249			0.01815 J
Total HpCDD	17	18	0.03396	0.03396	0.02536	0.42092	0.15858			0.03396 UJ
Total TCDF	17	18	0.00805	0.00805	0.00659	0.03849	0.01311			0.00805 UJ
Total PeCDF	14	18	0.00503	0.00776	0.00256	0.02606	0.01101			0.00559 J
Total HxCDF	16	18	0.01017	0.01025	0.00624	0.03393	0.01594			0.01017 UJ
Total HpCDF	13	18	0.00271	0.00998	0.0046	0.11255	0.03197			0.00579 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	18	18			0.0631	3.04	0.690			0.598
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	1	4	0.01874	0.02911	0.33102	0.33102	0.09136			0.01874 UJ
4-Chlorobiphenyl (3)	1	4	0.02508	0.03885	0.3553	0.3553	0.10000			0.02546 UJ
2,2'-Dichlorobiphenyl (4)	0	4	0.05297	0.0803			0.03238			0.06003 UJ
2,3-Dichlorobiphenyl (5)	1	4	0.02134	0.03982	0.00389	0.00389	0.01304			0.03982 UJ
2,3'-Dichlorobiphenyl (6)	0	4	0.02564	0.05504			0.02035			0.03982 UJ
2,4-Dichlorobiphenyl (7)	3	4	0.03982	0.03982	0.01055	0.01692	0.01484			0.03982 UJ
2,4'-Dichlorobiphenyl (8)	0	4	0.13514	0.36823			0.12500			0.36823 UJ
2,5-Dichlorobiphenyl (9)	3	4	0.03982	0.03982	0.00692	0.02223	0.01555			0.03982 UJ
2,6-Dichlorobiphenyl (10)	0	4	0.02134	0.03982			0.01524			0.03982 UJ
3,4-Dichlorobiphenyl (12)	0	4	0.02204	0.07964			0.02131			0.07964 UJ
2,2',3-Trichlorobiphenyl (16)	1	4	0.04518	0.14107	0.14046	0.14046	0.06604			0.14046 J
2,2',4-Trichlorobiphenyl (17)	2	4	0.07433	0.08062	0.19382	0.29065	0.14049			0.19382 J
2,2',5-Trichlorobiphenyl (18)	2	4	0.1309	0.14462	0.32244	0.4641	0.23108			0.32244 J
2,2',6-Trichlorobiphenyl (19)	2	4	0.01512	0.0163	0.03416	0.05797	0.02696			0.03416 J
2,3,3'-Trichlorobiphenyl (20)	4	4			8.60428	15.9108	11.79222			8.9886 J
2,3,4'-Trichlorobiphenyl (22)	2	4	0.16525	0.214	0.53826	0.58453	0.32810			0.53826 J
2,3,6-Trichlorobiphenyl (24)	3	3			0.0223	0.1152	0.05440			
2,3',4-Trichlorobiphenyl (25)	4	4			0.06452	0.21521	0.14109			0.21521 J
2,3',5-Trichlorobiphenyl (26)	4	4			0.11648	0.3079	0.19947			0.24216 J
2,4',5-Trichlorobiphenyl (31)	4	4			2.68015	4.20502	3.46870			3.60883 J
2,4',6-Trichlorobiphenyl (32)	4	4			0.08229	0.31925	0.19722			0.2955 J
2,2',3,3'-Tetrachlorobiphenyl (40)	4	4			0.39768	1.88496	1.20293			1.84986 J
2,2',3,4'-Tetrachlorobiphenyl (42)	4	4			0.40028	2.25876	1.40280			2.14226 J
2,2',3,5-Tetrachlorobiphenyl (43)	4	4			18.5895	37.45473	25.02507			18.5895 J
2,2',3,5'-Tetrachlorobiphenyl (44)	4	4			4.21719	11.98344	7.76369			8.13966 J
2,2',3,6-Tetrachlorobiphenyl (45)	4	4			0.07312	0.27702	0.16635			0.21754 J
2,2',3,6'-Tetrachlorobiphenyl (46)	3	4	0.02497	0.02497	0.032	0.08128	0.04707			0.06253 J
2,2',4,5-Tetrachlorobiphenyl (48)	4	4			0.11037	0.471	0.29663			0.43422 J
2,2',4,5'-Tetrachlorobiphenyl (49)	4	4			6.05202	13.32026	8.59204			8.50828 J
2,2',4,6-Tetrachlorobiphenyl (50)	4	4			0.2557	0.7906	0.47600			0.56758 J

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	A-TS-33-P 6/9/2001	A-TS-35-L 6/12/2001	A-TS-35-N 6/12/2001
2,3,3',4'-Tetrachlorobiphenyl (56)	3	4	0.28461	0.28461	0.74809	1.66917	1.04456			1.61866 J
2,3,3',6-Tetrachlorobiphenyl (59)	4	4			0.42681	1.08552	0.65982			0.66105 J
2,3,4,4'-Tetrachlorobiphenyl (60)	4	4			1.76276	2.93694	2.32965			1.76276 J
2,3,4,5-Tetrachlorobiphenyl (61)	4	4			11.8846	22.55172	16.01730			16.61952 J
2,3,4',5-Tetrachlorobiphenyl (63)	4	4			0.65792	1.05523	0.82280			0.74333 J
2,3,4',6-Tetrachlorobiphenyl (64)	4	4			1.96441	5.74203	3.80124			4.93562 J
2,3',4,4'-Tetrachlorobiphenyl (66)	4	4			16.70736	30.14	20.76796			16.70736 J
3,3',4,4'-Tetrachlorobiphenyl (77)	4	4			1.39919	3.42062	2.38568			1.39919 J
3,4,4',5-Tetrachlorobiphenyl (81)	4	4			0.06364	0.87062	0.39887			0.58574 J
2,2',3,3',4-Pentachlorobiphenyl (82)	4	4			0.6899	2.6281	1.75013			2.6281 J
2,2',3,3',5-Pentachlorobiphenyl (83)	4	4			29.50036	54.7685	36.20870			30.77049 J
2,2',3,3',6-Pentachlorobiphenyl (84)	4	4			1.03782	3.16489	2.12654			2.24588 J
2,2',3,4,4'-Pentachlorobiphenyl (85)	4	4			8.78736	17.53932	11.26059			9.00366 J
2,2',3,4,5-Pentachlorobiphenyl (86)	4	4			17.0553	38.18604	24.76884			24.0435 J
2,2',3,4,6-Pentachlorobiphenyl (88)	4	4			2.78774	7.41298	4.12586			3.46596 J
2,2',3,4,6'-Pentachlorobiphenyl (89)	4	4			0.02006	0.11026	0.05795			0.07555 J
2,2',3,4',5-Pentachlorobiphenyl (90)	4	4			54.15018	117.66726	77.31919			54.15018 J
2,2',3,5,5'-Pentachlorobiphenyl (92)	4	4			9.7529	19.40193	12.62318			9.7529 J
2,2',3,5,6-Pentachlorobiphenyl (93)	4	4			0.6458	42.94585	21.43826			0.6458 J
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			16.21975	16.21975	16.21975			16.21975 J
2,3,3',4,4'-Pentachlorobiphenyl (105)	4	4			14.01757	23.9319	17.14075			14.01757 J
2,3,3',4,5-Pentachlorobiphenyl (106)	4	4			5.64533	11.68937	8.27398			5.64533 J
2,3,3',4',5'-Pentachlorobiphenyl (108)	4	4			0.99058	2.83708	1.98222			0.99058 J
2,3,3',4',6-Pentachlorobiphenyl (110)	4	4			25.45494	63.89716	39.80838			42.30244 J
2,3,4,4',5-Pentachlorobiphenyl (114)	4	4			0.92068	1.723	1.17667			0.92068 J
2,3',4,4',5-Pentachlorobiphenyl (118)	4	4			59.80452	112.86755	76.17593			59.80452 J
3,3',4,4',5-Pentachlorobiphenyl (126)	4	4			0.20264	0.65096	0.40582			0.20264 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	4	4			9.83904	18.00726	12.96723			9.83904 J
2,2',3,3',4,5-Hexachlorobiphenyl (129)	4	4			67.61396	127.16464	93.93912			67.61396 J
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	4	4			4.41185	7.09408	5.37879			4.41185 J
2,2',3,3',4,6-Hexachlorobiphenyl (131)	4	4			0.22607	0.63318	0.42191			0.45476 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	4	4			7.75839	13.05003	9.44241			9.00035 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)	4	4			0.35474	0.89052	0.65129			0.6953 J
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	4	4			6.897	14.50365	9.09776			6.897 J
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	4	4			0.97426	3.3351	1.90499			0.97426 J
2,2',3,4,4',5-Hexachlorobiphenyl (137)	4	4			6.91946	13.31168	8.96657			6.91946 J
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	4	4			7.68578	15.085	10.05045			7.68578 J
2,2',3,4,5',6-Hexachlorobiphenyl (144)	4	4			1.18977	2.59605	1.60291			1.3841 J

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	A-TS-33-P 6/9/2001	A-TS-35-L 6/12/2001	A-TS-35-N 6/12/2001
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	4	4			9.75878	18.9875	13.39336			9.75878 J
2,2',3,4',5,6-Hexachlorobiphenyl (147)	4	4			23.2534	49.4495	33.23200			23.2534 J
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	4	4			75.6839	122.29218	93.82845			75.6839 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)	4	4			8.77876	14.959	10.82802			8.77876 J
2,3,3',4,4',6-Hexachlorobiphenyl (158)	4	4			6.60026	10.96987	7.76513			6.60026 J
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	4	4			4.00006	7.19045	5.17398			4.00006 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	4	4			0.06738	0.17884	0.13210			0.14573 J
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	4	4			7.75011	17.38287	13.71335			7.75011 J
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	4	4			1.5679	3.14268	2.56758			1.5679 J
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	4	4			1.81281	4.26067	3.29904			1.81281 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	4	4			4.10873	7.46184	6.11788			7.46184 J
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	4	4			0.26335	0.57776	0.43884			0.26335 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	4	4			0.2131	0.54108	0.36710			0.2131 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	4	4			2.70928	6.71165	5.01609			2.70928 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	4	4			1.68822	3.87251	2.93713			1.68822 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	4	4			19.36406	45.13878	36.44332			19.36406 J
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	3	4	0.70756	0.70756	0.05112	0.11083	0.14752			0.05112 J
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	3	3			5.80879	8.36153	6.92570			
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	4	4			0.01918	0.03517	0.02999			0.01918 J
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	3	3			0.57208	0.83218	0.67863			
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	4	4			8.82397	23.59885	17.68494			8.82397 J
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	4	4			0.3827	0.85854	0.64533			0.3827 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	4	4			1.64908	5.06442	3.52085			1.64908 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	4	4			0.2911	0.72829	0.57178			0.2911 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	4	4			3.09854	15.5062	9.17002			3.09854 J
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	4	4			0.68071	2.56514	1.78452			0.68071 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	4	4			1.98817	5.77606	3.71205			1.98817 J
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	3	4	0.2965	0.2965	0.15363	0.23592	0.19008			0.2965 UJ
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	4	4			10.35898	29.84814	17.40604			10.35898 J
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	3	3			0.18336	0.32871	0.27064			
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	4	4			0.7279	1.68406	1.05438			0.7279 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	4	4			5.70116	13.39977	8.99813			5.70116 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	4	4			0.17396	0.52644	0.34578			0.17396 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	4	4			8.32082	33.57326	16.16054			8.32082 J
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	4	4			0.66297	3.24225	1.52088			0.66297 J
Decachlorobiphenyl (209)	4	4			3.7104	32.99045	12.28692			3.7104 J
PCB Congeners, Total	4	4			710.57781	1308.44313	941.23594			710.57781 J
Toxicity Equivalency (PCB)	4	4			0.0342	0.0895	0.0576			0.0342

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	A-TS-33-P 6/9/2001	A-TS-35-L 6/12/2001	A-TS-35-N 6/12/2001
Other (%)										
Lipid_percent	8	8			3.1	8.51	4.87	3.1		5.36

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Pesticides/PCBs (ug/Kg)									
4,4'-DDD	63.95			12.68		4.7 J			4.26 J
4,4'-DDE	3.34			480.85		152.94			25.82 J
4,4'-DDT	3.13			4.49 J		3.35 J			3.06 J
Aldrin	1.53 U			7.98 U		7.86 U			2.99 UJ
alpha-BHC	1.53 U			7.98 U		7.86 U			2.99 UJ
alpha-Chlordane	11.57			32.92		12.2			4.8 J
Aroclor, Total	455.76			1386.25		892.18 J			669.78 J
Aroclor-1016	19.15 U			99.81 U		98.26 U			37.37 UJ
Aroclor-1221	19.15 U			99.81 U		98.26 U			37.37 UJ
Aroclor-1232	19.15 U			99.81 U		98.26 U			37.37 UJ
Aroclor-1242	19.15 U			99.81 U		98.26 U			37.37 UJ
Aroclor-1248	19.15 U			99.81 U		98.26 U			37.37 UJ
Aroclor-1254	420.47			1208.94		799.88			633.59 J
Aroclor-1260	19.15 U			99.81 U		98.26 U			37.37 UJ
Aroclor-1268	35.29			177.31		92.3 J			36.18 J
beta-BHC	1.53 U			7.98 U		7.86 U			2.99 UJ
delta-BHC	1.53 UJ			7.98 U		7.86 U			2.99 UJ
Dieldrin	11			24.41		14.94			8.28 J
Endosulfan I	1.53 U			7.98 U		7.86 U			2.99 UJ
Endosulfan II	1.53 U			7.98 U		7.86 U			2.99 UJ
Endosulfan Sulfate	1.53 U			7.98 U		7.86 U			2.99 UJ
Endrin	1.53 U			7.98 U		7.86 U			2.99 UJ
Endrin Aldehyde	1.53 U			7.98 UJ		7.86 UJ			2.99 UJ
Endrin Ketone	1.53 U			7.98 U		7.86 U			2.99 UJ
gamma-BHC	1.53 UJ			7.98 U		7.86 U			2.99 UJ
gamma-Chlordane	9.28			7.98 U		7.86 U			2.99 UJ
Heptachlor	1.53 U			7.98 U		7.86 U			2.99 UJ
Heptachlor Epoxide	19.66			40.61 J		29.62 J			13.57 J
Methoxychlor	1.53 U			7.98 U		7.86 U			2.99 UJ
Technical Chlordane	385.27			333.22 J		681.41 J			422.37 J
Toxaphene	19.15 U			199.62 U		196.52 U			74.75 UJ
Inorganics (mg/Kg)									
Aluminum								0.884 U	
Antimony								0.034 U	
Arsenic								0.0774 U	
Barium								0.0321 U	
Beryllium								0.005 U	

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Cadmium								0.201 U	
Chromium								0.271 U	
Cobalt								0.379 U	
Copper								3.65	
Iron								233 J	
Lead								0.188 U	
Manganese								1.35	
Mercury								0.0501	
Mercury (methyl)								0.0375	
Molybdenum								0.589	
Nickel								0.323 U	
Selenium								0.535 U	
Silver								0.061 U	
Thallium								0.023 U	
Vanadium								0.18 U	
Zinc								19.6 J	
Dioxins/Furans (ug/Kg)									
HCX		0.07907 UJ	0.05646 UJ		0.07518 UJ		0.02948		0.03734 J
TCX		1.6 UJ	1.1 UJ		1.5 UJ		R		R
2,3,7,8-TCDD		0.04182 J	0.18062 J		0.41039 J		0.33774 J		0.99503 J
1,2,3,7,8-PeCDD		0.00546 J	0.02908 J		0.00565 J		0.0123 J		0.00292 J
1,2,3,4,7,8-HxCDD		0.00644 J	0.02689 J		0.00571 J		0.01435 J		0.0027 J
1,2,3,6,7,8-HxCDD		0.04924 J	0.18731 J		0.03756 J		0.07046 J		0.0083 J
1,2,3,7,8,9-HxCDD		0.00828 J	0.01161 J		0.00519 J		0.00763 J		0.00223 J
1,2,3,4,6,7,8-HpCDD		0.34471 J	0.33058 J		0.18792 J		0.10947 J		0.02436 J
OCDD		0.51893 J	0.35399 J		0.1989 J		0.07862 UJ		0.02455 J
2,3,7,8-TCDF		0.00965 J$	0.0088 J$		0.01991 J$		0.01688 UJ$		0.00665 J
1,2,3,7,8-PeCDF		0.00378 J	0.00601 J		0.00273 UJ		0.00701 J		0.00118 J
2,3,4,7,8-PeCDF		0.00435 J	0.01209 J		0.00433 J		0.00817 J		0.00233 J
1,2,3,4,7,8-HxCDF		0.007 J	0.00798 J		0.00453 J		0.01045 J		0.00153 J
1,2,3,6,7,8-HxCDF		0.00591 J	0.00783 J		0.00367 J		0.00617 J		0.0018 J
2,3,4,6,7,8-HxCDF		0.00412 J	0.00488 J		0.00232 J		0.00294 J		0.00086 J
1,2,3,7,8,9-HxCDF		0.0004 J	0.00086 UJ		0.00042 UJ		0.00063 UJ		0.00037 UJ
1,2,3,4,6,7,8-HpCDF		0.08447 J	0.02152 J		0.0258 J		0.00874 J		0.00369 J
1,2,3,4,7,8,9-HpCDF		0.00281 J	0.00064 UJ		0.00102 UJ		0.00061 UJ		0.00027 J
OCDF		0.03758 J	0.00169 UJ		0.00512 UJ		0.00059 UJ		0.00119 UJ
Total TCDD		0.04182 J	0.18062 J		0.41039 J		0.33774 J		0.99503 J
Total PeCDD		0.00546 UJ	0.03288 J		0.00565 UJ		0.0123 UJ		0.00302 UJ

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Total HxCDD		0.0669 J	0.24021 J		0.05036 J		0.09434 J		0.0134 J
Total HpCDD		0.34897 J	0.36139 J		0.19027 J		0.11124 J		0.02536 J
Total TCDF		0.01253 J	0.01074 J		0.01094 J		0.02091 J		0.00918 J
Total PeCDF		0.01292 J	0.0181 J		0.02606 J		0.02264 J		0.0065 J
Total HxCDF		0.0338 J	0.02457 J		0.01395 J		0.02207 J		0.00624 J
Total HpCDF		0.10572 J	0.02346 J		0.03223 J		0.00998 UJ		0.0046 J
Toxicity Equivalency (Dioxins, Furans, HCX)		0.0631	0.245		0.428		0.367		1
PCB Congeners (ug/Kg)									
2-Monochlorobiphenyl (1)							0.02911 UJ		
4-Chlorobiphenyl (3)							0.03885 UJ		
2,2'-Dichlorobiphenyl (4)							0.05297 UJ		
2,3-Dichlorobiphenyl (5)							0.02134 UJ		
2,3'-Dichlorobiphenyl (6)							0.04233 UJ		
2,4-Dichlorobiphenyl (7)							0.01199 J		
2,4'-Dichlorobiphenyl (8)							0.23776 UJ		
2,5-Dichlorobiphenyl (9)							0.01315		
2,6-Dichlorobiphenyl (10)							0.02134 UJ		
3,4-Dichlorobiphenyl (12)							0.03422 UJ		
2,2',3-Trichlorobiphenyl (16)							0.06115 UJ		
2,2',4-Trichlorobiphenyl (17)							0.08062 UJ		
2,2',5-Trichlorobiphenyl (18)							0.14462 UJ		
2,2',6-Trichlorobiphenyl (19)							0.0163 UJ		
2,3,3'-Trichlorobiphenyl (20)							8.60428 J		
2,3,4'-Trichlorobiphenyl (22)							0.214 UJ		
2,3,6-Trichlorobiphenyl (24)							0.0223 J		
2,3',4-Trichlorobiphenyl (25)							0.06452 J		
2,3',5-Trichlorobiphenyl (26)							0.11648 J		
2,4',5-Trichlorobiphenyl (31)							2.68015 J		
2,4',6-Trichlorobiphenyl (32)							0.08229 J		
2,2',3,3'-Tetrachlorobiphenyl (40)							0.67923 J		
2,2',3,4'-Tetrachlorobiphenyl (42)							0.8099 J		
2,2',3,5-Tetrachlorobiphenyl (43)							20.31873 J		
2,2',3,5'-Tetrachlorobiphenyl (44)							6.71448 J		
2,2',3,6-Tetrachlorobiphenyl (45)							0.09772 J		
2,2',3,6'-Tetrachlorobiphenyl (46)							0.032 J		
2,2',4,5-Tetrachlorobiphenyl (48)							0.17093 J		
2,2',4,5'-Tetrachlorobiphenyl (49)							6.05202 J		
2,2',4,6-Tetrachlorobiphenyl (50)							0.2901 J		

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2,3,3',4'-Tetrachlorobiphenyl (56)							0.74809 J		
2,3,3',6-Tetrachlorobiphenyl (59)							0.4659 J		
2,3,4,4'-Tetrachlorobiphenyl (60)							1.90553 J		
2,3,4,5-Tetrachlorobiphenyl (61)							13.01336 J		
2,3,4',5-Tetrachlorobiphenyl (63)							0.65792 J		
2,3,4',6-Tetrachlorobiphenyl (64)							1.96441 J		
2,3',4,4'-Tetrachlorobiphenyl (66)							16.8735 J		
3,3',4,4'-Tetrachlorobiphenyl (77)							2.30804 J		
3,4,4',5-Tetrachlorobiphenyl (81)							0.06364 J		
2,2',3,3',4-Pentachlorobiphenyl (82)							1.28082 J		
2,2',3,3',5-Pentachlorobiphenyl (83)							29.50036 J		
2,2',3,3',6-Pentachlorobiphenyl (84)							2.05755 J		
2,2',3,4,4'-Pentachlorobiphenyl (85)							8.78736 J		
2,2',3,4,5-Pentachlorobiphenyl (86)							19.79052 J		
2,2',3,4,6-Pentachlorobiphenyl (88)							2.83676 J		
2,2',3,4,6'-Pentachlorobiphenyl (89)							0.02593 J		
2,2',3,4',5-Pentachlorobiphenyl (90)							66.30663 J		
2,2',3,5,5'-Pentachlorobiphenyl (92)							10.1785 J		
2,2',3,5,6-Pentachlorobiphenyl (93)							21.68 J		
2,2',3,5',6-Pentachlorobiphenyl (95)									
2,3,3',4,4'-Pentachlorobiphenyl (105)							14.42049 J		
2,3,3',4,5-Pentachlorobiphenyl (106)							7.5979 J		
2,3,3',4',5'-Pentachlorobiphenyl (108)							2.397 J		
2,3,3',4',6-Pentachlorobiphenyl (110)							25.45494 J		
2,3,4,4',5-Pentachlorobiphenyl (114)							0.94892 J		
2,3',4,4',5-Pentachlorobiphenyl (118)							64.96157 J		
3,3',4,4',5-Pentachlorobiphenyl (126)							0.44476 J		
2,2',3,3',4,4'-Hexachlorobiphenyl (128)							12.432 J		
2,2',3,3',4,5-Hexachlorobiphenyl (129)							93.67716 J		
2,2',3,3',4,5'-Hexachlorobiphenyl (130)							4.88671 J		
2,2',3,3',4,6-Hexachlorobiphenyl (131)							0.37362 J		
2,2',3,3',4,6'-Hexachlorobiphenyl (132)							7.75839 J		
2,2',3,3',5,6-Hexachlorobiphenyl (134)							0.89052 J		
2,2',3,3',5,6'-Hexachlorobiphenyl (135)							7.91898 J		
2,2',3,3',6,6'-Hexachlorobiphenyl (136)							2.02724 J		
2,2',3,4,4',5-Hexachlorobiphenyl (137)							7.93172 J		
2,2',3,4,5,5'-Hexachlorobiphenyl (141)							8.73718 J		
2,2',3,4,5',6-Hexachlorobiphenyl (144)							1.24171 J		

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PARAMETER	A-TS-35-N 6/12/2001 REEXTRACTED	A-TS-35-P 5/31/2001	A-TS-38-P 5/25/2001	A-TS-39-P 6/12/2001	A-TS-42A-P 6/9/2001	A-TS-42B-P 6/7/2001	A-TS-45-P 6/8/2001	A-TS-46-L 6/9/2001	A-TS-46-N 6/9/2001
2,2',3,4',5,5'-Hexachlorobiphenyl (146)							13.11964 J		
2,2',3,4',5,6-Hexachlorobiphenyl (147)							31.43752 J		
2,2',4,4',5,5'-Hexachlorobiphenyl (153)							92.94406 J		
2,3,3',4,4',5-Hexachlorobiphenyl (156)							10.36726 J		
2,3,3',4,4',6-Hexachlorobiphenyl (158)							6.87977 J		
2,3',4,4',5,5'-Hexachlorobiphenyl (167)							5.17013 J		
3,3',4,4',5,5'-Hexachlorobiphenyl (169)							0.13644 J		
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)							17.38287 J		
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)							3.04628 J		
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)							4.26067 J		
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)							5.9868 J		
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)							0.53926 J		
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)							0.4316 J		
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)							6.71165 J		
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)							3.87251 J		
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)							45.13878 J		
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)							0.11083 J		
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)							6.60678 J		
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)							0.03105 J		
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)							0.63163 J		
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)							21.32827 J		
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)							0.77605 J		
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)							5.06442 J		
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)							0.72829 J		
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)							15.5062 J		
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)							2.56514 J		
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)							5.77606 J		
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)							0.23592 J		
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)							29.84814 J		
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)							0.32871 J		
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)							1.68406 J		
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)							13.39977 J		
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)							0.52644 J		
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl							33.57326 J		
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl							3.24225 J		
Decachlorobiphenyl (209)							32.99045 J		
PCB Congeners, Total							933.68486 J		
Toxicity Equivalency (PCB)							0.0598		

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
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PARAMETER	A-TS-35-N 6/12/2001 REEXTRACTED	A-TS-35-P 5/31/2001	A-TS-38-P 5/25/2001	A-TS-39-P 6/12/2001	A-TS-42A-P 6/9/2001	A-TS-42B-P 6/7/2001	A-TS-45-P 6/8/2001	A-TS-46-L 6/9/2001	A-TS-46-N 6/9/2001
Other (%)									
Lipid_percent				7.42		3.58			8.51

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Pesticides/PCBs (ug/Kg)									
4,4'-DDD				3.56 J			3.83		
4,4'-DDE				25.2 J			25.85		
4,4'-DDT				2.25 J			1.98 J		
Aldrin				6.99 UJ			3.82 U		
alpha-BHC				6.99 UJ			3.82 U		
alpha-Chlordane				11.99 J			3.16 J		
Aroclor, Total				464.97 J			500.69 J		
Aroclor-1016				87.38 UJ			47.74 U		
Aroclor-1221				87.38 UJ			47.74 U		
Aroclor-1232				87.38 UJ			47.74 U		
Aroclor-1242				87.38 UJ			47.74 U		
Aroclor-1248				87.38 UJ			47.74 U		
Aroclor-1254				443.93 J			469.99		
Aroclor-1260				87.38 UJ			47.74 U		
Aroclor-1268				21.04 J			30.71 J		
beta-BHC				6.99 UJ			3.82 U		
delta-BHC				6.99 UJ			3.82 U		
Dieldrin				11.4 J			6.35		
Endosulfan I				6.99 UJ			3.82 U		
Endosulfan II				6.99 UJ			3.82 U		
Endosulfan Sulfate				6.99 UJ			3.82 U		
Endrin				6.99 UJ			3.82 U		
Endrin Aldehyde				6.99 UJ			3.82 UJ		
Endrin Ketone				6.99 UJ			3.82 U		
gamma-BHC				6.99 UJ			3.82 U		
gamma-Chlordane				6.99 UJ			3.82 U		
Heptachlor				6.99 UJ			3.82 U		
Heptachlor Epoxide				19.76 J			8.62		
Methoxychlor				6.99 UJ			3.82 U		
Technical Chlordane				626.06 J			425.56 J		
Toxaphene				174.75 UJ			95.47 U		
Inorganics (mg/Kg)									
Aluminum			1.13 U			1.13 U			
Antimony			0.034 U			0.034 U			
Arsenic			0.054 U			0.034 U			
Barium			0.011 U			0.0352 U			
Beryllium			0.005 U			0.005 U			

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

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PARAMETER	A-TS-46-P 5/28/2001	A-TS-47-P 6/22/2001	A-TS-48-L 6/7/2001	A-TS-48-N 6/7/2001	A-TS-48-P 5/26/2001	A-TS-49-L 6/12/2001	A-TS-49-N 6/12/2001	A-TS-49-P 5/30/2001	A-TS-51-P 6/22/2001
Cadmium			0.201 U			0.201 U			
Chromium			0.271 U			0.271 U			
Cobalt			0.379 U			0.379 U			
Copper			3.83			3.52			
Iron			268 J			445 J			
Lead			0.023 U			0.0283 U			
Manganese			1.88			1.52			
Mercury			0.0421			0.045			
Mercury (methyl)			0.0342			0.0383			
Molybdenum			0.609			0.635			
Nickel			0.323 U			0.323 U			
Selenium			0.555 U			0.553 U			
Silver			0.061 U			0.061 U			
Thallium			0.023 U			0.023 U			
Vanadium			0.18 U			0.18 U			
Zinc			20.1 J			18.2 J			
Dioxins/Furans (ug/Kg)									
HCX	0.06957 UJ	0.13841 UJ		0.01526 J	0.0723 UJ		0.029 J	0.08889 UJ	0.04288 UJ
TCX	1.4 UJ	R		R	0.00306 J		R	1.8 UJ	0.86 UJ
2,3,7,8-TCDD	0.17597 J	0.62483 J		1.02826 J	0.23247 J		0.92298 J	0.18251 J	0.42584 J
1,2,3,7,8-PeCDD	0.00408 J	0.0054 UJ		0.00398 J	0.00464 J		0.00351 J	0.0046 J	0.00779 J
1,2,3,4,7,8-HxCDD	0.00379 J	0.00553 J		0.00367 J	0.00455 J		0.00399 J	0.00435 J	0.00817 J
1,2,3,6,7,8-HxCDD	0.03298 J	0.01832 J		0.01519 J	0.02645 J		0.0148 J	0.05099 J	0.01983 J
1,2,3,7,8,9-HxCDD	0.00563 J	0.00602 J		0.00415 J	0.00415 J		0.00316 J	0.00594 J	0.00329 J
1,2,3,4,6,7,8-HpCDD	0.19407 J	0.04967 J		0.03289 J	0.13263 J		0.09346 J	0.32243 J	0.02853 J
OCDD	0.31872 J	0.06112 UJ		0.02349 J	0.2267 J		0.13441 J	0.30022 J	0.02062 UJ
2,3,7,8-TCDF	0.00587 J$	0.01839 UJ$		0.00853 J	0.00737 J$		0.00593 J	0.00687 J$	0.01624 J$
1,2,3,7,8-PeCDF	0.00224 UJ	0.00256 J		0.00174 J	0.00221 UJ		0.00127 J	0.00222 UJ	0.00296 J
2,3,4,7,8-PeCDF	0.00284 J	0.00956 UJ		0.00625 J	0.00313 J		0.00208 J	0.0032 J	0.0054 J
1,2,3,4,7,8-HxCDF	0.00372 J	0.00974 UJ		0.00306 J	0.00327 J		0.00218 J	0.00558 J	0.0022 J
1,2,3,6,7,8-HxCDF	0.00352 J	0.00961 UJ		0.00224 J	0.00305 J		0.00245 J	0.00378 J	0.00236 J
2,3,4,6,7,8-HxCDF	0.0025 J	0.0103 UJ		0.00127 J	0.00218 J		0.00122 J	0.00283 J	0.00135 J
1,2,3,7,8,9-HxCDF	0.00086 UJ	0.01157 UJ		0.00102 UJ	0.00041 UJ		0.00025 UJ	0.00056 UJ	0.00056 UJ
1,2,3,4,6,7,8-HpCDF	0.05238 J	0.00881 J		0.0046 J	0.03034 J		0.00949 J	0.04864 J	0.00271 J
1,2,3,4,7,8,9-HpCDF	0.00176 J	0.02097 UJ		0.00056 J	0.00091 UJ		0.0005 J	0.00211 J	0.00046 UJ
OCDF	0.0115 J	0.03113 UJ		0.01101 J	0.00932 J		0.00369 UJ	0.00942 J	0.00067 UJ
Total TCDD	0.17597 J	0.62483 J		1.02826 J	0.23247 J		0.92298 J	0.18251 J	0.42584 J
Total PeCDD	0.00408 UJ	0.029 UJ		0.00398 UJ	0.00464 UJ		0.00437 UJ	0.0046 UJ	0.00779 UJ

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PARAMETER	A-TS-46-P 5/28/2001	A-TS-47-P 6/22/2001	A-TS-48-L 6/7/2001	A-TS-48-N 6/7/2001	A-TS-48-P 5/26/2001	A-TS-49-L 6/12/2001	A-TS-49-N 6/12/2001	A-TS-49-P 5/30/2001	A-TS-51-P 6/22/2001
Total HxCDD	0.04485 J	0.02986 J		0.03625 J	0.03684 J		0.02315 J	0.06252 J	0.03334 J
Total HpCDD	0.19407 J	0.04967 J		0.04035 J	0.13546 J		0.09538 J	0.32243 J	0.02853 J
Total TCDF	0.00659 J	0.01396 J		0.00853 J	0.00764 J		0.00789 J	0.00698 J	0.02228 J
Total PeCDF	0.00636 UJ	0.00256 J		0.01357 J	0.00776 UJ		0.00593 J	0.00596 UJ	0.0124 J
Total HxCDF	0.01691 J	0.01025 UJ		0.01208 J	0.01134 J		0.00797 J	0.01628 J	0.00836 J
Total HpCDF	0.06278 J	0.00881 UJ		0.0085 J	0.03726 J		0.0108 J	0.05503 J	0.00271 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	0.19	0.629		1.04	0.245		0.932	0.201	0.442
PCB Congeners (ug/Kg)									
2-Monochlorobiphenyl (1)		0.33102 J							
4-Chlorobiphenyl (3)		0.3553							
2,2'-Dichlorobiphenyl (4)		0.0803 UJ							
2,3-Dichlorobiphenyl (5)		0.03538 UJ							
2,3'-Dichlorobiphenyl (6)		0.05504 UJ							
2,4-Dichlorobiphenyl (7)		0.01692 J							
2,4'-Dichlorobiphenyl (8)		0.25884 UJ							
2,5-Dichlorobiphenyl (9)		0.02223 J							
2,6-Dichlorobiphenyl (10)		0.03538 UJ							
3,4-Dichlorobiphenyl (12)		0.03454 UJ							
2,2',3'-Trichlorobiphenyl (16)		0.14107 UJ							
2,2',4-Trichlorobiphenyl (17)		0.29065 J							
2,2',5-Trichlorobiphenyl (18)		0.4641 J							
2,2',6-Trichlorobiphenyl (19)		0.05797 J							
2,3,3'-Trichlorobiphenyl (20)		13.6652 J							
2,3,4'-Trichlorobiphenyl (22)		0.58453 J							
2,3,6-Trichlorobiphenyl (24)		0.1152 J							
2,3',4-Trichlorobiphenyl (25)		0.20095 J							
2,3',5-Trichlorobiphenyl (26)		0.3079 J							
2,4',5-Trichlorobiphenyl (31)		4.20502 J							
2,4',6-Trichlorobiphenyl (32)		0.31925 J							
2,2',3,3'-Tetrachlorobiphenyl (40)		1.88496 J							
2,2',3,4'-Tetrachlorobiphenyl (42)		2.25876 J							
2,2',3,5-Tetrachlorobiphenyl (43)		37.45473 J							
2,2',3,5'-Tetrachlorobiphenyl (44)		11.98344 J							
2,2',3,6-Tetrachlorobiphenyl (45)		0.27702 J							
2,2',3,6'-Tetrachlorobiphenyl (46)		0.08128 J							
2,2',4,5-Tetrachlorobiphenyl (48)		0.471 J							
2,2',4,5'-Tetrachlorobiphenyl (49)		13.32026 J							
2,2',4,6-Tetrachlorobiphenyl (50)		0.7906 J							

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2,3,3',4'-Tetrachlorobiphenyl (56)		1.66917 J							
2,3,3',6-Tetrachlorobiphenyl (59)		1.08552 J							
2,3,4,4'-Tetrachlorobiphenyl (60)		2.93694 J							
2,3,4,5-Tetrachlorobiphenyl (61)		22.55172 J							
2,3,4',5-Tetrachlorobiphenyl (63)		1.05523 J							
2,3,4',6-Tetrachlorobiphenyl (64)		5.74203 J							
2,3',4,4'-Tetrachlorobiphenyl (66)		30.14 J							
3,3',4,4'-Tetrachlorobiphenyl (77)		3.42062 J							
3,4,4',5-Tetrachlorobiphenyl (81)		0.87062 J							
2,2',3,3',4-Pentachlorobiphenyl (82)		2.40169 J							
2,2',3,3',5-Pentachlorobiphenyl (83)		54.7685 J							
2,2',3,3',6-Pentachlorobiphenyl (84)		3.16489 J							
2,2',3,4,4'-Pentachlorobiphenyl (85)		17.53932 J							
2,2',3,4,5-Pentachlorobiphenyl (86)		38.18804 J							
2,2',3,4,6-Pentachlorobiphenyl (88)		7.41298 J							
2,2',3,4,6'-Pentachlorobiphenyl (89)		0.11026 J							
2,2',3,4',5-Pentachlorobiphenyl (90)		117.66726 J							
2,2',3,5,5'-Pentachlorobiphenyl (92)		19.40193 J							
2,2',3,5,6-Pentachlorobiphenyl (93)		42.94585 J							
2,2',3,5',6-Pentachlorobiphenyl (95)									
2,3,3',4,4'-Pentachlorobiphenyl (105)		23.9319 J							
2,3,3',4,5-Pentachlorobiphenyl (106)		11.68937 J							
2,3,3',4',5'-Pentachlorobiphenyl (108)		2.83708 J							
2,3,3',4',6-Pentachlorobiphenyl (110)		63.89716 J							
2,3,4,4',5-Pentachlorobiphenyl (114)		1.723 J							
2,3',4,4',5-Pentachlorobiphenyl (118)		112.86755 J							
3,3',4,4',5-Pentachlorobiphenyl (126)		0.65096 J							
2,2',3,3',4,4'-Hexachlorobiphenyl (128)		18.00726 J							
2,2',3,3',4,5-Hexachlorobiphenyl (129)		127.16464 J							
2,2',3,3',4,5'-Hexachlorobiphenyl (130)		7.09408 J							
2,2',3,3',4,6-Hexachlorobiphenyl (131)		0.63318 J							
2,2',3,3',4,6'-Hexachlorobiphenyl (132)		13.05003 J							
2,2',3,3',5,6-Hexachlorobiphenyl (134)		0.6646 J							
2,2',3,3',5,6'-Hexachlorobiphenyl (135)		14.50365 J							
2,2',3,3',6,6'-Hexachlorobiphenyl (136)		3.3351 J							
2,2',3,4,4',5-Hexachlorobiphenyl (137)		13.31168 J							
2,2',3,4,5,5'-Hexachlorobiphenyl (141)		15.085 J							
2,2',3,4,5',6-Hexachlorobiphenyl (144)		2.59605 J							

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2,2',3,4',5,5'-Hexachlorobiphenyl (146)		18.9875 J							
2,2',3,4',5,6-Hexachlorobiphenyl (147)		49.4495 J							
2,2',4,4',5,5'-Hexachlorobiphenyl (153)		122.29218 J							
2,3,3',4,4',5-Hexachlorobiphenyl (156)		14.959 J							
2,3,3',4,4',6-Hexachlorobiphenyl (158)		10.96987 J							
2,3',4,4',5,5'-Hexachlorobiphenyl (167)		7.19045 J							
3,3',4,4',5,5'-Hexachlorobiphenyl (169)		0.17884 J							
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)		16.34631 J							
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)		3.14268 J							
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)		4.14396 J							
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)		6.91416 J							
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)		0.57776 J							
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)		0.54108 J							
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)		5.57154 J							
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)		3.67464 J							
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)		44.36644 J							
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)		0.70756 UJ							
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)		8.36153 J							
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)		0.03456 J							
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)		0.83218 J							
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)		23.59885 J							
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)		0.85854 J							
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)		3.8982 J							
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)		0.69721 J							
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)		9.50223 J							
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)		2.02076 J							
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)		4.04692 J							
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)		0.22253 J							
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)		16.79606 J							
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)		0.29984 J							
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)		1.07576 J							
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)		9.55381 J							
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)		0.3977 J							
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl		13.12184 J							
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl		1.21824 J							
Decachlorobiphenyl (209)		7.02931 J							
PCB Congeners, Total		1308.44313 J							
Toxicity Equivalency (PCB)		0.0895							

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	A-TS-46-P 5/28/2001	A-TS-47-P 6/22/2001	A-TS-48-L 6/7/2001	A-TS-48-N 6/7/2001	A-TS-48-P 5/26/2001	A-TS-49-L 6/12/2001	A-TS-49-N 6/12/2001	A-TS-49-P 5/30/2001	A-TS-51-P 6/22/2001
Other (%)									
Lipid_percent				3.55			4.22		

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	A-TS-52-P 6/9/2001	A-TS-53-P 5/30/2001	A-TS-54-P 6/11/2001	A-TS-57-L 6/8/2001	A-TS-57-N 6/8/2001	A-TS-57-N 6/8/2001 REEXTRACTED	A-TS-57-P 5/26/2001
Pesticides/PCBs (ug/Kg)							
4,4'-DDD					6.07	51.43	
4,4'-DDE					51.43	5.59	
4,4'-DDT					5.59	6.07	
Aldrin					2.82 UJ	2.41 U	
alpha-BHC					2.82 UJ	2.41 U	
alpha-Chlordane					30.81 J	70.6	
Aroclor, Total					588.15 J	1021.41	
Aroclor-1016					35.31 UJ	30.13 U	
Aroclor-1221					35.31 UJ	30.13 U	
Aroclor-1232					35.31 UJ	30.13 U	
Aroclor-1242					35.31 UJ	30.13 U	
Aroclor-1248					35.31 UJ	30.13 U	
Aroclor-1254					560.77 J	984.96	
Aroclor-1260					35.31 UJ	30.13 U	
Aroclor-1268					27.39 J	36.45	
beta-BHC					2.82 UJ	2.41 U	
delta-BHC					2.82 UJ	2.41 UJ	
Dieldrin					8.61 J	16.42	
Endosulfan I					2.82 UJ	2.41 U	
Endosulfan II					2.82 UJ	2.41 U	
Endosulfan Sulfate					2.82 UJ	13.12	
Endrin					2.82 UJ	2.41 U	
Endrin Aldehyde					2.82 UJ	2.41 U	
Endrin Ketone					2.82 UJ	2.41 U	
gamma-BHC					2.82 UJ	2.41 UJ	
gamma-Chlordane					1.85 J	18.6	
Heptachlor					2.82 UJ	2.41 U	
Heptachlor Epoxide					17.73 J	42.18	
Methoxychlor					2.82 UJ	2.41 U	
Technical Chlordane					835.88 J	627.25	
Toxaphene					70.62 UJ	30.13 U	
Inorganics (mg/Kg)							
Aluminum				1.13 U			
Antimony				0.034 U			
Arsenic				0.0673 U			
Barium				0.074 U			
Beryllium				0.005 U			

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	A-TS-52-P 6/9/2001	A-TS-53-P 5/30/2001	A-TS-54-P 6/11/2001	A-TS-57-L 6/8/2001	A-TS-57-N 6/8/2001	A-TS-57-N 6/8/2001 REEXTRACTED	A-TS-57-P 5/26/2001
Cadmium				0.0529 J			
Chromium				0.228 J			
Cobalt				0.379 U			
Copper				5.83			
Iron				189 J			
Lead				0.0285 U			
Manganese				1.84			
Mercury				0.0527			
Mercury (methyl)				0.0447			
Molybdenum				0.758			
Nickel				0.323 U			
Selenium				0.774 J			
Silver				0.061 U			
Thallium				0.023 U			
Vanadium				0.18 U			
Zinc				26.2 J			
Dioxins/Furans (ug/Kg)							
HCX	0.01979	0.01186 J	0.08218 J		0.05961 J		0.0677 UJ
TCX	R	R	R		R		1.4 UJ
2,3,7,8-TCDD	0.39784 J	0.2664 J	3.00354 J		1.70268 J		0.56063 J
1,2,3,7,8-PeCDD	0.00596 J	0.00881 J	0.01563 J		0.00411 J		0.00944 J
1,2,3,4,7,8-HxCDD	0.00636 J	0.01164 J	0.01128 J		0.00389 J		0.01027 J
1,2,3,6,7,8-HxCDD	0.04112 J	0.06645 J	0.07873 J		0.01278 J		0.08157 J
1,2,3,7,8,9-HxCDD	0.00484 J	0.01148 J	0.0074 J		0.00302 J		0.01127 J
1,2,3,4,6,7,8-HpCDD	0.05986 J	0.3356 J	0.0749 J		0.03298 J		0.40954 J
OCDD	0.03353 UJ	0.40318 J	0.09758 UJ		0.01938 J		1.04296 J
2,3,7,8-TCDF	0.01528 UJ$	0.01246 UJ$	0.0298 UJ$		0.00928 J		0.01106 J$
1,2,3,7,8-PeCDF	0.004 J	0.00445 J	0.00685 J		0.00197 J		0.00503 J
2,3,4,7,8-PeCDF	0.00607 J	0.00608 J	0.01296 J		0.00283 J		0.00266 UJ
1,2,3,4,7,8-HxCDF	0.00456 J	0.00744 J	0.00554 J		0.00271 J		0.0088 J
1,2,3,6,7,8-HxCDF	0.0032 J	0.00686 J	0.00517 J		0.00286 J		0.00728 J
2,3,4,6,7,8-HxCDF	0.00175 J	0.00561 J	0.0033 J		0.00113 J		0.00464 J
1,2,3,7,8,9-HxCDF	0.00094 UJ	0.00102 UJ	0.00027 J		0.00025 UJ		0.00458 UJ
1,2,3,4,6,7,8-HpCDF	0.0067 J	0.07071 J	0.01612 J		0.00547 J		0.07101 J
1,2,3,4,7,8,9-HpCDF	0.00122 UJ	0.00211 UJ	0.00041 UJ		0.0003 J		0.00447 J
OCDF	0.00059 UJ	0.01443 UJ	0.00706 UJ		0.00082 UJ		0.06434 J
Total TCDD	0.39784 J	0.2664 J	3.00354 J		1.70268 J		0.56063 J
Total PeCDD	0.00596 UJ	0.00881 UJ	0.01563 UJ		0.00411 UJ		0.01292 UJ

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	A-TS-52-P 6/9/2001	A-TS-53-P 5/30/2001	A-TS-54-P 6/11/2001	A-TS-57-L 6/8/2001	A-TS-57-N 6/8/2001	A-TS-57-N 6/8/2001 REEXTRACTED	A-TS-57-P 5/26/2001
Total HxCDD	0.05364 J	0.09584 J	0.09901 J		0.02038 J		0.10576 J
Total HpCDD	0.06099 J	0.3401 J	0.0783 J		0.03401 J		0.42092 J
Total TCDF	0.01358 J	0.01813 J	0.03849 J		0.01297 J		0.01062 J
Total PeCDF	0.01025 J	0.01735 J	0.02337 J		0.00833 J		0.00503 UJ
Total HxCDF	0.00951 J	0.03247 J	0.01762 J		0.00953 J		0.03393 J
Total HpCDF	0.00704 UJ	0.07945 J	0.01903 J		0.00689 J		0.11255 J
Toxicity Equivalency (Dioxins, Furans, HCX)	0.414	0.294	3.04		1.71		0.589
PCB Congeners (ug/Kg)							
2-Monochlorobiphenyl (1)	0.02098 UJ						
4-Chlorobiphenyl (3)	0.02508 UJ						
2,2'-Dichlorobiphenyl (4)	0.06575 UJ						
2,3-Dichlorobiphenyl (5)	0.00389 J						
2,3'-Dichlorobiphenyl (6)	0.02564 UJ						
2,4-Dichlorobiphenyl (7)	0.01055 J						
2,4'-Dichlorobiphenyl (8)	0.13514 UJ						
2,5-Dichlorobiphenyl (9)	0.00692 J						
2,6-Dichlorobiphenyl (10)	0.02538 UJ						
3,4-Dichlorobiphenyl (12)	0.02204 UJ						
2,2',3-Trichlorobiphenyl (16)	0.04518 UJ						
2,2',4-Trichlorobiphenyl (17)	0.07433 UJ						
2,2',5-Trichlorobiphenyl (18)	0.1309 UJ						
2,2',6-Trichlorobiphenyl (19)	0.01512 UJ						
2,3,3'-Trichlorobiphenyl (20)	15.9108 J						
2,3,4'-Trichlorobiphenyl (22)	0.16525 UJ						
2,3,6-Trichlorobiphenyl (24)	0.0257 J						
2,3',4-Trichlorobiphenyl (25)	0.08366 J						
2,3',5-Trichlorobiphenyl (26)	0.13132 J						
2,4',5-Trichlorobiphenyl (31)	3.38078 J						
2,4',6-Trichlorobiphenyl (32)	0.09185 J						
2,2',3,3'-Tetrachlorobiphenyl (40)	0.39768 J						
2,2',3,4'-Tetrachlorobiphenyl (42)	0.40028 J						
2,2',3,5-Tetrachlorobiphenyl (43)	23.73732 J						
2,2',3,5'-Tetrachlorobiphenyl (44)	4.21719 J						
2,2',3,6-Tetrachlorobiphenyl (45)	0.07312 J						
2,2',3,6'-Tetrachlorobiphenyl (46)	0.02497 UJ						
2,2',4,5-Tetrachlorobiphenyl (48)	0.11037 J						
2,2',4,5'-Tetrachlorobiphenyl (49)	6.4876 J						
2,2',4,6-Tetrachlorobiphenyl (50)	0.2557 J						

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report -
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	A-TS-52-P 6/9/2001	A-TS-53-P 5/30/2001	A-TS-54-P 6/11/2001	A-TS-57-L 6/8/2001	A-TS-57-N 6/8/2001	A-TS-57-N 6/8/2001 REEXTRACTED	A-TS-57-P 5/26/2001
2,3,3',4'-Tetrachlorobiphenyl (56)	0.28461 UJ						
2,3,3',6-Tetrachlorobiphenyl (59)	0.42681 J						
2,3,4,4'-Tetrachlorobiphenyl (60)	2.71336 J						
2,3,4,5-Tetrachlorobiphenyl (61)	11.8846 J						
2,3,4',5-Tetrachlorobiphenyl (63)	0.8347 J						
2,3,4',6-Tetrachlorobiphenyl (64)	2.5629 J						
2,3',4,4'-Tetrachlorobiphenyl (66)	19.35099 J						
3,3',4,4'-Tetrachlorobiphenyl (77)	2.41485 J						
3,4,4',5-Tetrachlorobiphenyl (81)	0.07548 J						
2,2',3,3',4-Pentachlorobiphenyl (82)	0.6899 J						
2,2',3,3',5-Pentachlorobiphenyl (83)	29.79546 J						
2,2',3,3',6-Pentachlorobiphenyl (84)	1.03782 J						
2,2',3,4,4'-Pentachlorobiphenyl (85)	9.71202 J						
2,2',3,4,5-Pentachlorobiphenyl (86)	17.0553 J						
2,2',3,4,6-Pentachlorobiphenyl (88)	2.78774 J						
2,2',3,4,6'-Pentachlorobiphenyl (89)	0.02006 J						
2,2',3,4',5-Pentachlorobiphenyl (90)	71.15268 J						
2,2',3,5,5'-Pentachlorobiphenyl (92)	11.15939 J						
2,2',3,5,6-Pentachlorobiphenyl (93)	20.4814 J						
2,2',3,5',6-Pentachlorobiphenyl (95)							
2,3,3',4,4'-Pentachlorobiphenyl (105)	16.19304 J						
2,3,3',4,5-Pentachlorobiphenyl (106)	8.1633 J						
2,3,3',4',5'-Pentachlorobiphenyl (108)	1.7042 J						
2,3,3',4',6-Pentachlorobiphenyl (110)	27.57898 J						
2,3,4,4',5-Pentachlorobiphenyl (114)	1.11409 J						
2,3',4,4',5-Pentachlorobiphenyl (118)	67.07007 J						
3,3',4,4',5-Pentachlorobiphenyl (126)	0.32491 J						
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	11.5906 J						
2,2',3,3',4,5-Hexachlorobiphenyl (129)	87.30072 J						
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	5.1225 J						
2,2',3,3',4,6-Hexachlorobiphenyl (131)	0.22607 J						
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	7.96086 J						
2,2',3,3',5,6-Hexachlorobiphenyl (134)	0.35474 J						
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	7.07142 J						
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1.28336 J						
2,2',3,4,4',5-Hexachlorobiphenyl (137)	7.70342 J						
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	8.69383 J						
2,2',3,4,5',6-Hexachlorobiphenyl (144)	1.18977 J						

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	A-TS-52-P 6/9/2001	A-TS-53-P 5/30/2001	A-TS-54-P 6/11/2001	A-TS-57-L 6/8/2001	A-TS-57-N 6/8/2001	A-TS-57-N 6/8/2001 REEXTRACTED	A-TS-57-P 5/26/2001
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	11.7075 J						
2,2',3,4',5,6-Hexachlorobiphenyl (147)	28.78758 J						
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	84.39364 J						
2,3,3',4,4',5-Hexachlorobiphenyl (156)	9.20706 J						
2,3,3',4,4',6-Hexachlorobiphenyl (158)	6.6106 J						
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	4.33527 J						
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.06738 J						
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	13.37411 J						
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	2.51344 J						
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	2.97871 J						
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	4.10873 J						
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	0.37497 J						
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	0.2826 J						
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	5.07187 J						
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	2.51313 J						
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	36.904 J						
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	0.07436 J						
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	5.80879 J						
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	0.03517 J						
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	0.57208 J						
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	16.98868 J						
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.56401 J						
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	3.47169 J						
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	0.57053 J						
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	8.57309 J						
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1.87145 J						
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	3.03705 J						
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	0.15363 J						
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	12.62098 J						
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	0.18336 J						
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	0.72981 J						
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	7.33778 J						
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	0.285 J						
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	9.62625 J						
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	0.96007 J						
Decachlorobiphenyl (209)	5.41751 J						
PCB Congeners, Total	812.23795 J						
Toxicity Equivalency (PCB)	0.047						

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Table A-34
Summary Statistics and Analytical Results for Tree Swallow - Allendale

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Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	A-TS-52-P 6/9/2001	A-TS-53-P 5/30/2001	A-TS-54-P 6/11/2001	A-TS-57-L 6/8/2001	A-TS-57-N 6/8/2001	A-TS-57-N 6/8/2001 REEXTRACTED	A-TS-57-P 5/26/2001
Other (%)							
Lipid_percent					3.24		

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Table A-35
Summary Statistics and Analytical Results for Tree Swallow - Upstream

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Centredale Manor Restoration Project Superfund Site
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	G-TS-01-P 5/21/2001	G-TS-02-L 5/30/2001	G-TS-02-N 5/30/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	9	9			2.05	19.73	5.90	3.6 J		2.24
4,4'-DDE	8	9	2.01	2.01	16.16	653.15	179.03	236.99		19.73
4,4'-DDT	7	9	2.01	8.16	0.58	6.28	3.07	5.94 J		2.01 U
Aldrin	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
alpha-BHC	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
alpha-Chlordane	9	9			1.18	23.04	11.73	1.18 J		8.71 J
Aroclor, Total	9	9			133.4	1872.18	576.55	502.34 J		133.4 J
Aroclor-1016	0	9	25.09	112.88			29.11	108.37 U		30.35 UJ
Aroclor-1221	0	9	25.09	112.88			29.11	108.37 U		30.35 UJ
Aroclor-1232	0	9	25.09	112.88			29.11	108.37 U		30.35 UJ
Aroclor-1242	0	9	25.09	112.88			29.11	108.37 U		30.35 UJ
Aroclor-1248	0	9	25.09	112.88			29.11	108.37 U		30.35 UJ
Aroclor-1254	9	9			108.26	1512.26	461.39	394.22		109.39 J
Aroclor-1260	0	9	25.09	112.88			29.11	108.37 U		30.35 UJ
Aroclor-1268	9	9			24.01	359.93	115.16	108.12 J		24.01 J
beta-BHC	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
delta-BHC	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
Dieldrin	9	9			2.82	28.59	11.49	19.47		2.82 J
Endosulfan I	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
Endosulfan II	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
Endosulfan Sulfate	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
Endrin	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
Endrin Aldehyde	0	9	2.01	9.03			2.33	8.67 UJ		2.43 UJ
Endrin Ketone	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
gamma-BHC	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
gamma-Chlordane	2	9	2.01	9.03	0.68	1.01	2.26	8.67 U		0.68 J
Heptachlor	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
Heptachlor Epoxide	8	9	2.01	2.01	3.28	40.76	14.23	7.42 J		5.49 J
Methoxychlor	0	9	2.01	9.03			2.33	8.67 U		2.43 UJ
Technical Chlordane	9	9			156.17	918.43	413.58	187.41 J		203.97 J
Toxaphene	0	9	25.09	225.76			56.82	216.73 U		60.7 UJ
Inorganics (mg/Kg)										
Aluminum	0	5	1.13	1.13			0.565		1.13 U	
Antimony	0	5	0.034	0.034			0.0170		0.034 U	
Arsenic	0	5	0.034	0.0573			0.0195		0.034 U	

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Barium	0	5	0.011	0.174			0.0261		0.0411 U	
Beryllium	0	5	0.005	0.005			0.00250		0.005 U	
Cadmium	0	5	0.201	0.201			0.101		0.201 U	
Chromium	0	5	0.271	0.271			0.136		0.271 U	
Cobalt	0	5	0.379	0.379			0.190		0.379 U	
Copper	5	5			3.32	6.4	5.22		6.09	
Iron	5	5			188	390	294		188 J	
Lead	0	5	0.023	0.023			0.0115		0.023 U	
Manganese	5	5			0.897	1.34	1.15		1.08	
Mercury	5	5			0.0296	0.0496	0.0409		0.0496	
Mercury (methyl)	5	5			0.0242	0.0378	0.0339		0.0378	
Molybdenum	5	5			0.506	0.601	0.544		0.54	
Nickel	0	5	0.323	0.323			0.162		0.323 U	
Selenium	0	5	0.451	0.571			0.255		0.493 U	
Silver	0	5	0.061	0.061			0.0305		0.061 U	
Thallium	0	5	0.023	0.023			0.0115		0.023 U	
Vanadium	0	5	0.18	0.18			0.0900		0.18 U	
Zinc	5	5			18.2	22.9	19.7		22.9 J	
Dioxins/Furans (ug/Kg)										
HCX	2	11	0.01994	0.16221	0.00832	0.04315	0.03377			0.02635 UJ
TCX	0	6	1	3.2			0.99167			R
2,3,7,8-TCDD	11	11			0.006	1.08725	0.15253			0.00997 J
1,2,3,7,8-PeCDD	9	11	0.00092	0.00224	0.00112	0.00728	0.00313			0.00112 J
1,2,3,4,7,8-HxCDD	11	11			0.00128	0.00856	0.00380			0.00128 J
1,2,3,6,7,8-HxCDD	11	11			0.00282	0.05212	0.01853			0.00282 J
1,2,3,7,8,9-HxCDD	11	11			0.00047	0.00721	0.00309			0.00047 J
1,2,3,4,6,7,8-HpCDD	11	11			0.00615	0.81899	0.19339			0.00615 J
OCDD	8	11	0.01088	0.06663	0.02023	2.07032	0.39723			0.01088 UJ
2,3,7,8-TCDF	9	11	0.00194	0.00364	0.00313	0.01685	0.00677			0.00313 J
1,2,3,7,8-PeCDF	7	11	0.00117	0.00363	0.00067	0.00441	0.00144			0.0007 J
2,3,4,7,8-PeCDF	9	11	0.00085	0.00166	0.00078	0.00504	0.00218			0.00078 J
1,2,3,4,7,8-HxCDF	7	11	0.002	0.00435	0.00073	0.00653	0.00226			0.00073 J
1,2,3,6,7,8-HxCDF	10	11	0.00205	0.00205	0.00052	0.00508	0.00218			0.00052 J
2,3,4,6,7,8-HxCDF	10	11	0.00129	0.00129	0.0003	0.00293	0.00125			0.0003 J
1,2,3,7,8,9-HxCDF	0	11	0.00029	0.00276			0.00050			0.00029 UJ
1,2,3,4,6,7,8-HpCDF	11	11			0.0009	0.08384	0.02320			0.0009 J
1,2,3,4,7,8,9-HpCDF	6	11	0.0006	0.00174	0.00017	0.00432	0.00128			0.00104 UJ

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OCDF	4	11	0.0004	0.00983	0.01052	0.05861	0.01049			0.00122 UJ
Total TCDD	11	11			0.006	1.08725	0.15254			0.00997 J
Total PeCDD	1	11	0.00092	0.00983	0.0461	0.0461	0.00644			0.00112 UJ
Total HxCDD	11	11			0.00509	0.07236	0.02699			0.00509 J
Total HpCDD	10	11	0.02586	0.02586	0.00672	0.83346	0.19576			0.00672 J
Total TCDF	10	11	0.00674	0.00674	0.00213	0.01549	0.00782			0.00437 J
Total PeCDF	5	11	0.00085	0.01169	0.00268	0.00922	0.00469			0.00268 J
Total HxCDF	8	11	0.00592	0.01456	0.00229	0.02624	0.00908			0.00229 J
Total HpCDF	8	11	0.00115	0.01084	0.00388	0.10781	0.02941			0.00115 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	11	11			0.0094	1.09	0.162			0.0125
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	1	1			0.47266	0.47266	0.47266			
4-Chlorobiphenyl (3)	1	1			0.15096	0.15096	0.15096			
2,2'-Dichlorobiphenyl (4)	1	1			2.43953	2.43953	2.43953			
2,3-Dichlorobiphenyl (5)	0	1	0.03639	0.03639			0.01820			
2,3'-Dichlorobiphenyl (6)	0	1	0.03639	0.03639			0.01820			
2,4-Dichlorobiphenyl (7)	0	1	0.03639	0.03639			0.01820			
2,4'-Dichlorobiphenyl (8)	0	1	0.30314	0.30314			0.15157			
2,5-Dichlorobiphenyl (9)	0	1	0.03639	0.03639			0.01820			
2,6-Dichlorobiphenyl (10)	1	1			0.04633	0.04633	0.04633			
3,4-Dichlorobiphenyl (12)	1	1			0.03114	0.03114	0.03114			
2,2',3'-Trichlorobiphenyl (16)	1	1			0.43167	0.43167	0.43167			
2,2',4-Trichlorobiphenyl (17)	1	1			0.21988	0.21988	0.21988			
2,2',5-Trichlorobiphenyl (18)	1	1			0.22924	0.22924	0.22924			
2,2',6-Trichlorobiphenyl (19)	1	1			0.77466	0.77466	0.77466			
2,3,3'-Trichlorobiphenyl (20)	1	1			3.24328	3.24328	3.24328			
2,3,4'-Trichlorobiphenyl (22)	1	1			0.22366	0.22366	0.22366			
2,3',4-Trichlorobiphenyl (25)	1	1			0.09309	0.09309	0.09309			
2,3',5-Trichlorobiphenyl (26)	1	1			0.16446	0.16446	0.16446			
2,4',5-Trichlorobiphenyl (31)	1	1			1.18698	1.18698	1.18698			
2,4',6-Trichlorobiphenyl (32)	1	1			0.81623	0.81623	0.81623			
2,2',3,3'-Tetrachlorobiphenyl (40)	1	1			0.68964	0.68964	0.68964			
2,2',3,4'-Tetrachlorobiphenyl (42)	1	1			0.35813	0.35813	0.35813			
2,2',3,5-Tetrachlorobiphenyl (43)	1	1			3.70836	3.70836	3.70836			
2,2',3,5'-Tetrachlorobiphenyl (44)	1	1			1.64358	1.64358	1.64358			
2,2',3,6-Tetrachlorobiphenyl (45)	1	1			0.40954	0.40954	0.40954			
2,2',3,6'-Tetrachlorobiphenyl (46)	1	1			0.03203	0.03203	0.03203			
2,2',4,5-Tetrachlorobiphenyl (48)	1	1			0.10597	0.10597	0.10597			
2,2',4,5'-Tetrachlorobiphenyl (49)	1	1			1.72798	1.72798	1.72798			

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2,2',4,6-Tetrachlorobiphenyl (50)	1	1			0.52658	0.52658	0.52658			
2,3,3',4'-Tetrachlorobiphenyl (56)	1	1			0.39182	0.39182	0.39182			
2,3,3',6-Tetrachlorobiphenyl (59)	1	1			0.13746	0.13746	0.13746			
2,3,4,4'-Tetrachlorobiphenyl (60)	1	1			0.68376	0.68376	0.68376			
2,3,4,5-Tetrachlorobiphenyl (61)	1	1			4.38148	4.38148	4.38148			
2,3,4',5-Tetrachlorobiphenyl (63)	1	1			0.20852	0.20852	0.20852			
2,3,4',6-Tetrachlorobiphenyl (64)	1	1			1.07871	1.07871	1.07871			
2,3',4,4'-Tetrachlorobiphenyl (66)	1	1			3.66771	3.66771	3.66771			
3,3',4,4'-Tetrachlorobiphenyl (77)	1	1			0.37704	0.37704	0.37704			
3,4,4',5-Tetrachlorobiphenyl (81)	1	1			0.01635	0.01635	0.01635			
2,2',3,3',4-Pentachlorobiphenyl (82)	1	1			0.33627	0.33627	0.33627			
2,2',3,3',5-Pentachlorobiphenyl (83)	1	1			5.55435	5.55435	5.55435			
2,2',3,3',6-Pentachlorobiphenyl (84)	1	1			0.49345	0.49345	0.49345			
2,2',3,4,4'-Pentachlorobiphenyl (85)	1	1			1.93929	1.93929	1.93929			
2,2',3,4,5-Pentachlorobiphenyl (86)	1	1			4.01952	4.01952	4.01952			
2,2',3,4,6-Pentachlorobiphenyl (88)	1	1			0.73686	0.73686	0.73686			
2,2',3,4,6'-Pentachlorobiphenyl (89)	1	1			0.01793	0.01793	0.01793			
2,2',3,4',5-Pentachlorobiphenyl (90)	1	1			9.94896	9.94896	9.94896			
2,2',3,5,5'-Pentachlorobiphenyl (92)	1	1			1.66231	1.66231	1.66231			
2,2',3,5,6-Pentachlorobiphenyl (93)	1	1			0.22336	0.22336	0.22336			
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			3.05611	3.05611	3.05611			
2,3,3',4,4'-Pentachlorobiphenyl (105)	1	1			3.67967	3.67967	3.67967			
2,3,3',4,5-Pentachlorobiphenyl (106)	1	1			1.09048	1.09048	1.09048			
2,3,3',4',5'-Pentachlorobiphenyl (108)	1	1			0.2898	0.2898	0.28980			
2,3,3',4',6-Pentachlorobiphenyl (110)	1	1			8.3041	8.3041	8.30410			
2,3,4,4',5-Pentachlorobiphenyl (114)	1	1			0.25416	0.25416	0.25416			
2,3',4,4',5-Pentachlorobiphenyl (118)	1	1			12.22709	12.22709	12.22709			
3,3',4,4',5-Pentachlorobiphenyl (126)	1	1			0.05611	0.05611	0.05611			
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	1	1			2.69082	2.69082	2.69082			
2,2',3,3',4,5-Hexachlorobiphenyl (129)	1	1			16.55076	16.55076	16.55076			
2,2',3,3',4,5'-Hexachlorobiphenyl (130)	1	1			1.03708	1.03708	1.03708			
2,2',3,3',4,6-Hexachlorobiphenyl (131)	1	1			0.08966	0.08966	0.08966			
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	1	1			1.89693	1.89693	1.89693			
2,2',3,3',5,6-Hexachlorobiphenyl (134)	1	1			0.27376	0.27376	0.27376			
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	1	1			2.09997	2.09997	2.09997			
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	1	1			0.28882	0.28882	0.28882			
2,2',3,4,4',5-Hexachlorobiphenyl (137)	1	1			1.76464	1.76464	1.76464			
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	1	1			2.03519	2.03519	2.03519			

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2,2',3,4,5',6-Hexachlorobiphenyl (144)	1	1			0.34765	0.34765	0.34765			
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	1	1			2.7456	2.7456	2.74560			
2,2',3,4',5,6-Hexachlorobiphenyl (147)	1	1			6.12476	6.12476	6.12476			
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	1	1			18.12324	18.12324	18.12324			
2,3,3',4,4',5-Hexachlorobiphenyl (156)	1	1			2.1752	2.1752	2.17520			
2,3,3',4,4',6-Hexachlorobiphenyl (158)	1	1			1.63245	1.63245	1.63245			
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	1	1			0.96517	0.96517	0.96517			
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	1	1			0.22413	0.22413	0.22413			
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	1	1			2.96972	2.96972	2.96972			
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	1	1			0.76766	0.76766	0.76766			
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	1	1			1.08424	1.08424	1.08424			
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	1	1			3.97104	3.97104	3.97104			
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	1	1			0.15188	0.15188	0.15188			
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	1	1			0.09831	0.09831	0.09831			
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	1	1			1.62799	1.62799	1.62799			
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	1	1			1.26885	1.26885	1.26885			
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	1	1			8.62252	8.62252	8.62252			
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	1	1			0.04215	0.04215	0.04215			
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	1	1			0.01959	0.01959	0.01959			
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	1	1			5.85715	5.85715	5.85715			
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	1	1			0.15729	0.15729	0.15729			
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	1	1			0.58103	0.58103	0.58103			
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	1	1			0.13003	0.13003	0.13003			
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	1	1			1.82203	1.82203	1.82203			
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	1	1			0.39371	0.39371	0.39371			
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	1	1			1.60237	1.60237	1.60237			
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	0	1	0.27401	0.27401			0.13701			
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	1	1			10.54634	10.54634	10.54634			
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	1	1			0.69784	0.69784	0.69784			
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	1	1			4.20945	4.20945	4.20945			
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	1	1			0.13139	0.13139	0.13139			
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	1	1			11.74666	11.74666	11.74666			
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	1	1			0.86574	0.86574	0.86574			
Decachlorobiphenyl (209)	1	1			6.11187	6.11187	6.11187			
PCB Congeners, Total	1	1			211.10093	211.10093	211.10093			
Toxicity Equivalency (PCB)	1	1			0.0107	0.0107	0.0107			

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Other (%)										
Lipid_percent	8	8			2.6	17	8.38	11.3		2.6

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Human and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Pesticides/PCBs (ug/Kg)									
4,4'-DDD	19.73			2.05 J		9.56		3.1	
4,4'-DDE	2.01 U			17.83		653.15		16.16	
4,4'-DDT	2.24			2.1 J		8.16 U		1.39 J	
Aldrin	2.01 U			3.7 U		8.16 U		2.26 U	
alpha-BHC	2.01 U			3.7 U		8.16 U		2.26 U	
alpha-Chlordane	17.4			6.03		22.3		23.04	
Aroclor, Total	150.54 J			162.61 J		1872.18		201.8 J	
Aroclor-1016	25.09 U			46.25 U		101.96 U		28.28 U	
Aroclor-1221	25.09 U			46.25 U		101.96 U		28.28 U	
Aroclor-1232	25.09 U			46.25 U		101.96 U		28.28 U	
Aroclor-1242	25.09 U			46.25 U		101.96 U		28.28 U	
Aroclor-1248	25.09 U			46.25 U		101.96 U		28.28 U	
Aroclor-1254	108.26			134.45		1512.26		160.46	
Aroclor-1260	25.09 U			46.25 U		101.96 U		28.28 U	
Aroclor-1268	42.29			28.16 J		359.93		41.35	
beta-BHC	2.01 U			3.7 U		8.16 U		2.26 U	
delta-BHC	2.01 UJ			3.7 U		8.16 U		2.26 U	
Dieldrin	4.42			6.89		21.07		3.87	
Endosulfan I	2.01 U			3.7 U		8.16 U		2.26 U	
Endosulfan II	2.01 U			3.7 U		8.16 U		2.26 U	
Endosulfan Sulfate	2.01 U			3.7 U		8.16 U		2.26 U	
Endrin	2.01 U			3.7 U		8.16 U		2.26 U	
Endrin Aldehyde	2.01 U			3.7 UJ		8.16 UJ		2.26 UJ	
Endrin Ketone	2.01 U			3.7 U		8.16 U		2.26 U	
gamma-BHC	2.01 UJ			3.7 U		8.16 U		2.26 U	
gamma-Chlordane	2.01 U			3.7 U		8.16 U		1.01 J	
Heptachlor	2.01 U			3.7 U		8.16 U		2.26 U	
Heptachlor Epoxide	2.01 U			7.51		40.76 J		15.87	
Methoxychlor	2.01 U			3.7 U		8.16 U		2.26 U	
Technical Chlordane	194.85			196.49 J		918.43 J		755.5	
Toxaphene	25.09 U			92.51 U		203.91 U		56.56 U	
Inorganics (mg/Kg)									
Aluminum			1.13 U				1.13 U		
Antimony			0.034 U				0.034 U		
Arsenic			0.0352 U				0.034 U		

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Barium			0.0167 U				0.174 U		
Beryllium			0.005 U				0.005 U		
Cadmium			0.201 U				0.201 U		
Chromium			0.271 U				0.271 U		
Cobalt			0.379 U				0.379 U		
Copper			4.7				6.4		
Iron			390 J				217 J		
Lead			0.023 U				0.023 U		
Manganese			1.34				0.897		
Mercury			0.0296				0.045		
Mercury (methyl)			0.0242				0.0357		
Molybdenum			0.535				0.506		
Nickel			0.323 U				0.323 U		
Selenium			0.451 U				0.524 U		
Silver			0.061 U				0.061 U		
Thallium			0.023 U				0.023 U		
Vanadium			0.18 U				0.18 U		
Zinc			19.5 J				19.5 J		
Dioxins/Furans (ug/Kg)									
HCX		0.06774 UJ		0.00832 J	0.01994 UJ			0.02804 UJ	0.13038 UJ
TCX		1.4 UJ		R	1.3 UJ			R	2.6 UJ
2,3,7,8-TCDD		0.00814 J		0.02311 J	0.01331 J			0.006 J	0.01068 J
1,2,3,7,8-PeCDD		0.00209 J		0.00224 UJ	0.00466 J			0.00123 J	0.00092 UJ
1,2,3,4,7,8-HxCDD		0.00407 J		0.00184 J	0.00501 J			0.00137 J	0.00271 J
1,2,3,6,7,8-HxCDD		0.03196 J		0.00588 J	0.02356 J			0.00516 J	0.01849 J
1,2,3,7,8,9-HxCDD		0.00516 J		0.0013 J	0.00348 J			0.00079 J	0.00337 J
1,2,3,4,6,7,8-HpCDD		0.428 J		0.01977 J	0.11953 J			0.03033 J	0.29299 J
OCDD		0.58811 J		0.06663 UJ	0.19914 J			0.0603 J	0.63785 J
2,3,7,8-TCDF		0.00364 UJ$		0.00424 J#	0.00622 J$			0.00335 J	0.00194 UJ$
1,2,3,7,8-PeCDF		0.00117 UJ		0.00129 J	0.00232 UJ			0.00067 J	0.00156 UJ
2,3,4,7,8-PeCDF		0.00166 UJ		0.00175 J	0.00365 J			0.00105 J	0.00085 UJ
1,2,3,4,7,8-HxCDF		0.00435 UJ		0.002 UJ	0.00383 J			0.00097 J	0.00258 UJ
1,2,3,6,7,8-HxCDF		0.00333 J		0.00108 J	0.00254 J			0.00076 J	0.00205 UJ
2,3,4,6,7,8-HxCDF		0.00219 J		0.00065 J	0.00148 J			0.00038 J	0.00129 UJ
1,2,3,7,8,9-HxCDF		0.00076 UJ		0.00181 UJ	0.00095 UJ			0.00037 UJ	0.00109 UJ
1,2,3,4,6,7,8-HpCDF		0.04574 J		0.0063 J	0.02052 J			0.0027 J	0.03298 J
1,2,3,4,7,8,9-HpCDF		0.00302 J		0.00168 UJ	0.0006 UJ			0.00017 J	0.00248 J

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OCDF		0.01486 J		0.00983 UJ	0.01052 J			0.00097 UJ	0.0075 UJ
Total TCDD		0.00814 J		0.02326 J	0.01331 J			0.006 J	0.01068 J
Total PeCDD		0.00604 UJ		0.00644 UJ	0.00983 UJ			0.00272 UJ	0.00092 UJ
Total HxCDD		0.04424 J		0.01186 J	0.03205 J			0.00815 J	0.02616 J
Total HpCDD		0.43702 J		0.02586 UJ	0.11953 J			0.03145 J	0.29299 J
Total TCDF		0.00419 J		0.00674 UJ	0.00765 J			0.00486 J	0.00213 J
Total PeCDF		0.00459 UJ		0.00587 J	0.0074 UJ			0.00488 J	0.00085 UJ
Total HxCDF		0.01481 J		0.00818 UJ	0.01177 J			0.00383 J	0.00592 UJ
Total HpCDF		0.06138 J		0.01084 UJ	0.02623 J			0.00388 J	0.03962 J
Toxicity Equivalency (Dioxins, Furans, HCX)		0.0197		0.0258	0.0258			0.0094	0.0165
PCB Congeners (ug/Kg)									
2-Monochlorobiphenyl (1)				0.47266 J					
4-Chlorobiphenyl (3)				0.15096 J					
2,2'-Dichlorobiphenyl (4)				2.43953 J					
2,3-Dichlorobiphenyl (5)				0.03639 UJ					
2,3'-Dichlorobiphenyl (6)				0.03639 UJ					
2,4-Dichlorobiphenyl (7)				0.03639 UJ					
2,4'-Dichlorobiphenyl (8)				0.30314 UJ					
2,5-Dichlorobiphenyl (9)				0.03639 UJ					
2,6-Dichlorobiphenyl (10)				0.04633 J					
3,4-Dichlorobiphenyl (12)				0.03114 J					
2,2',3'-Trichlorobiphenyl (16)				0.43167 J					
2,2',4-Trichlorobiphenyl (17)				0.21988 J					
2,2',5-Trichlorobiphenyl (18)				0.22924 J					
2,2',6-Trichlorobiphenyl (19)				0.77466 J					
2,3,3'-Trichlorobiphenyl (20)				3.24328 J					
2,3,4'-Trichlorobiphenyl (22)				0.22366 J					
2,3',4-Trichlorobiphenyl (25)				0.09309 J					
2,3',5-Trichlorobiphenyl (26)				0.16446 J					
2,4',5-Trichlorobiphenyl (31)				1.18698 J					
2,4',6-Trichlorobiphenyl (32)				0.81623 J					
2,2',3,3'-Tetrachlorobiphenyl (40)				0.68964 J					
2,2',3,4'-Tetrachlorobiphenyl (42)				0.35813 J					
2,2',3,5-Tetrachlorobiphenyl (43)				3.70836 J					
2,2',3,5'-Tetrachlorobiphenyl (44)				1.64358 J					
2,2',3,6-Tetrachlorobiphenyl (45)				0.40954 J					
2,2',3,6'-Tetrachlorobiphenyl (46)				0.03203 J					
2,2',4,5-Tetrachlorobiphenyl (48)				0.10597 J					
2,2',4,5'-Tetrachlorobiphenyl (49)				1.72798 J					

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2,2',4,6-Tetrachlorobiphenyl (50)				0.52658 J					
2,3,3',4'-Tetrachlorobiphenyl (56)				0.39182 J					
2,3,3',6-Tetrachlorobiphenyl (59)				0.13746 J					
2,3,4,4'-Tetrachlorobiphenyl (60)				0.68376 J					
2,3,4,5-Tetrachlorobiphenyl (61)				4.38148 J					
2,3,4',5-Tetrachlorobiphenyl (63)				0.20852 J					
2,3,4',6-Tetrachlorobiphenyl (64)				1.07871 J					
2,3',4,4'-Tetrachlorobiphenyl (66)				3.66771 J					
3,3',4,4'-Tetrachlorobiphenyl (77)				0.37704 J					
3,4,4',5-Tetrachlorobiphenyl (81)				0.01635 J					
2,2',3,3',4-Pentachlorobiphenyl (82)				0.33627 J					
2,2',3,3',5-Pentachlorobiphenyl (83)				5.55435 J					
2,2',3,3',6-Pentachlorobiphenyl (84)				0.49345 J					
2,2',3,4,4'-Pentachlorobiphenyl (85)				1.93929 J					
2,2',3,4,5-Pentachlorobiphenyl (86)				4.01952 J					
2,2',3,4,6-Pentachlorobiphenyl (88)				0.73686 J					
2,2',3,4,6'-Pentachlorobiphenyl (89)				0.01793 J					
2,2',3,4',5-Pentachlorobiphenyl (90)				9.94896 J					
2,2',3,5,5'-Pentachlorobiphenyl (92)				1.66231 J					
2,2',3,5,6-Pentachlorobiphenyl (93)				0.22336 J					
2,2',3,5',6-Pentachlorobiphenyl (95)				3.05611 J					
2,3,3',4,4'-Pentachlorobiphenyl (105)				3.67967 J					
2,3,3',4,5-Pentachlorobiphenyl (106)				1.09048 J					
2,3,3',4',5'-Pentachlorobiphenyl (108)				0.2898 J					
2,3,3',4',6-Pentachlorobiphenyl (110)				8.3041 J					
2,3,4,4',5-Pentachlorobiphenyl (114)				0.25416 J					
2,3',4,4',5-Pentachlorobiphenyl (118)				12.22709 J					
3,3',4,4',5-Pentachlorobiphenyl (126)				0.05611 J					
2,2',3,3',4,4'-Hexachlorobiphenyl (128)				2.69082 J					
2,2',3,3',4,5-Hexachlorobiphenyl (129)				16.55076 J					
2,2',3,3',4,5'-Hexachlorobiphenyl (130)				1.03708 J					
2,2',3,3',4,6-Hexachlorobiphenyl (131)				0.08966 J					
2,2',3,3',4,6'-Hexachlorobiphenyl (132)				1.89693 J					
2,2',3,3',5,6-Hexachlorobiphenyl (134)				0.27376 J					
2,2',3,3',5,6'-Hexachlorobiphenyl (135)				2.09997 J					
2,2',3,3',6,6'-Hexachlorobiphenyl (136)				0.28882 J					
2,2',3,4,4',5-Hexachlorobiphenyl (137)				1.76464 J					
2,2',3,4,5,5'-Hexachlorobiphenyl (141)				2.03519 J					

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2,2',3,4,5',6-Hexachlorobiphenyl (144)				0.34765 J					
2,2',3,4',5,5'-Hexachlorobiphenyl (146)				2.7456 J					
2,2',3,4',5,6-Hexachlorobiphenyl (147)				6.12476 J					
2,2',4,4',5,5'-Hexachlorobiphenyl (153)				18.12324 J					
2,3,3',4,4',5-Hexachlorobiphenyl (156)				2.1752 J					
2,3,3',4,4',6-Hexachlorobiphenyl (158)				1.63245 J					
2,3',4,4',5,5'-Hexachlorobiphenyl (167)				0.96517 J					
3,3',4,4',5,5'-Hexachlorobiphenyl (169)				0.22413 J					
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)				2.96972 J					
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)				0.76766 J					
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)				1.08424 J					
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)				3.97104 J					
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)				0.15188 J					
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)				0.09831 J					
2,2',3,3',4,5',6-Heptachlorobiphenyl (177)				1.62799 J					
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)				1.26885 J					
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)				8.62252 J					
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)				0.04215 J					
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)				0.01959 J					
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)				5.85715 J					
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)				0.15729 J					
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)				0.58103 J					
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)				0.13003 J					
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)				1.82203 J					
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)				0.39371 J					
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)				1.60237 J					
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)				0.27401 UJ					
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)				10.54634 J					
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)				0.69764 J					
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)				4.20945 J					
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)				0.13139 J					
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl				11.74666 J					
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl				0.86574 J					
Decachlorobiphenyl (209)				6.11187 J					
PCB Congeners, Total				211.10093 J					
Toxicity Equivalency (PCB)				0.0107					

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Other (%)									
Lipid_percent				4.68		7.74		6.31	

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Human and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Pesticides/PCBs (ug/Kg)								
4,4'-DDD	7.15 J			3.22 J			2.44 J	
4,4'-DDE	623.52			24.58 J			18.31 J	
4,4'-DDT	6.28 J			4 J			0.58 J	
Aldrin	9.03 U			2.95 UJ			2.71 UJ	
alpha-BHC	9.03 U			2.95 UJ			2.71 UJ	
alpha-Chlordane	21.38			3.55 J			1.99 J	
Aroclor, Total	1678.09			283.97 J			203.99 J	
Aroclor-1016	112.88 U			36.87 UJ			33.86 UJ	
Aroclor-1221	112.88 U			36.87 UJ			33.86 UJ	
Aroclor-1232	112.88 U			36.87 UJ			33.86 UJ	
Aroclor-1242	112.88 U			36.87 UJ			33.86 UJ	
Aroclor-1248	112.88 U			36.87 UJ			33.86 UJ	
Aroclor-1254	1331.64			235.86 J			165.93 J	
Aroclor-1260	112.88 U			36.87 UJ			33.86 UJ	
Aroclor-1268	346.44			48.11 J			38.06 J	
beta-BHC	9.03 U			2.95 UJ			2.71 UJ	
delta-BHC	9.03 U			2.95 UJ			2.71 UJ	
Dieldrin	28.59			7.41 J			8.85 J	
Endosulfan I	9.03 U			2.95 UJ			2.71 UJ	
Endosulfan II	9.03 U			2.95 UJ			2.71 UJ	
Endosulfan Sulfate	9.03 U			2.95 UJ			2.71 UJ	
Endrin	9.03 U			2.95 UJ			2.71 UJ	
Endrin Aldehyde	9.03 UJ			2.95 UJ			2.71 UJ	
Endrin Ketone	9.03 U			2.95 UJ			2.71 UJ	
gamma-BHC	9.03 U			2.95 UJ			2.71 UJ	
gamma-Chlordane	9.03 U			2.95 UJ			2.71 UJ	
Heptachlor	9.03 U			2.95 UJ			2.71 UJ	
Heptachlor Epoxide	37.84 J			8.91 J			3.28 J	
Methoxychlor	9.03 U			2.95 UJ			2.71 UJ	
Technical Chlordane	747.25 J			362.12 J			156.17 J	
Toxaphene	225.76 U			73.73 UJ			67.72 UJ	
Inorganics (mg/Kg)								
Aluminum			1.13 U			1.13 U		
Antimony			0.034 U			0.034 U		
Arsenic			0.034 U			0.0573 U		

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Barium			0.011 U			0.0183 U		
Beryllium			0.005 U			0.005 U		
Cadmium			0.201 U			0.201 U		
Chromium			0.271 U			0.271 U		
Cobalt			0.379 U			0.379 U		
Copper			3.32			5.6		
Iron			356 J			321 J		
Lead			0.023 U			0.023 U		
Manganese			1.21			1.22		
Mercury			0.0419			0.0386		
Mercury (methyl)			0.036			0.0357		
Molybdenum			0.601			0.537		
Nickel			0.323 U			0.323 U		
Selenium			0.571 U			0.506 U		
Silver			0.061 U			0.061 U		
Thallium			0.023 U			0.023 U		
Vanadium			0.18 U			0.18 U		
Zinc			18.2 J			18.5 J		
Dioxins/Furans (ug/Kg)								
HCX		0.11793 UJ		0.03657 UJ	0.16221 UJ		0.04315 J	0.05082 UJ
TCX		2.4 UJ		R	3.2 UJ		R	1 UJ
2,3,7,8-TCDD		0.28487 J		0.00945 J	0.20985 J		1.08725 J	0.01517 J
1,2,3,7,8-PeCDD		0.00713 J		0.00169 J	0.00728 J		0.00285 J	0.0048 J
1,2,3,4,7,8-HxCDD		0.00612 J		0.00232 J	0.00856 J		0.00263 J	0.0059 J
1,2,3,6,7,8-HxCDD		0.02754 J		0.00629 J	0.05212 J		0.00779 J	0.02224 J
1,2,3,7,8,9-HxCDD		0.00501 J		0.00091 J	0.00721 J		0.00161 J	0.0045 J
1,2,3,4,6,7,8-HpCDD		0.27324 J		0.01555 J	0.81899 J		0.023 J	0.09971 J
OCDD		0.64751 J		0.01197 UJ	2.07032 J		0.02023 J	0.10133 J
2,3,7,8-TCDF		0.01062 J$		0.00476 J	0.01685 J$		0.00748 J	0.015 J$
1,2,3,7,8-PeCDF		0.00441 J		0.00093 J	0.00363 UJ		0.00136 J	0.00212 J
2,3,4,7,8-PeCDF		0.00504 J		0.00098 J	0.00494 J		0.00178 J	0.00272 J
1,2,3,4,7,8-HxCDF		0.00398 UJ		0.00087 J	0.00653 J		0.00174 J	0.00372 J
1,2,3,6,7,8-HxCDF		0.00362 J		0.00079 J	0.00508 J		0.00162 J	0.00361 J
2,3,4,6,7,8-HxCDF		0.00208 J		0.00038 J	0.00293 J		0.00074 J	0.00198 J
1,2,3,7,8,9-HxCDF		0.0011 UJ		0.0005 UJ	0.00276 UJ		0.00037 UJ	0.00093 UJ
1,2,3,4,6,7,8-HpCDF		0.03983 J		0.00137 J	0.08384 J		0.00342 J	0.01759 J
1,2,3,4,7,8,9-HpCDF		0.00174 UJ		0.00064 UJ	0.00432 J		0.00022 J	0.001 J

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OCDF		0.01963 J		0.0004 UJ	0.05861 J		0.0006 UJ	0.00301 UJ
Total TCDD		0.28487 J		0.00945 J	0.20985 J		1.08725 J	0.01517 J
Total PeCDD		0.00713 UJ		0.00508 UJ	0.0461 J		0.00524 UJ	0.00503 UJ
Total HxCDD		0.04035 J		0.01052 J	0.07236 J		0.01351 J	0.03263 J
Total HpCDD		0.28042 J		0.01615 J	0.83346 J		0.023 J	0.09971 J
Total TCDF		0.01261 J		0.00679 J	0.01549 J		0.0107 J	0.01387 J
Total PeCDF		0.011 UJ		0.00388 J	0.01169 UJ		0.00729 J	0.00922 J
Total HxCDF		0.01456 UJ		0.0044 J	0.02624 J		0.00716 J	0.01505 J
Total HpCDF		0.05082 J		0.00168 UJ	0.10781 J		0.00477 J	0.0222 J
Toxicity Equivalency (Dioxins, Furans, HCX)		0.303		0.0135	0.239		1.09	0.0283
PCB Congeners (ug/Kg)								
2-Monochlorobiphenyl (1)								
4-Chlorobiphenyl (3)								
2,2'-Dichlorobiphenyl (4)								
2,3-Dichlorobiphenyl (5)								
2,3'-Dichlorobiphenyl (6)								
2,4-Dichlorobiphenyl (7)								
2,4'-Dichlorobiphenyl (8)								
2,5-Dichlorobiphenyl (9)								
2,6-Dichlorobiphenyl (10)								
3,4-Dichlorobiphenyl (12)								
2,2',3'-Trichlorobiphenyl (16)								
2,2',4-Trichlorobiphenyl (17)								
2,2',5-Trichlorobiphenyl (18)								
2,2',6-Trichlorobiphenyl (19)								
2,3,3'-Trichlorobiphenyl (20)								
2,3,4'-Trichlorobiphenyl (22)								
2,3',4-Trichlorobiphenyl (25)								
2,3',5-Trichlorobiphenyl (26)								
2,4',5-Trichlorobiphenyl (31)								
2,4',6-Trichlorobiphenyl (32)								
2,2',3,3'-Tetrachlorobiphenyl (40)								
2,2',3,4'-Tetrachlorobiphenyl (42)								
2,2',3,5-Tetrachlorobiphenyl (43)								
2,2',3,5'-Tetrachlorobiphenyl (44)								
2,2',3,6-Tetrachlorobiphenyl (45)								
2,2',3,6'-Tetrachlorobiphenyl (46)								
2,2',4,5-Tetrachlorobiphenyl (48)								
2,2',4,5'-Tetrachlorobiphenyl (49)								

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2,2',4,6-Tetrachlorobiphenyl (50)								
2,3,3',4'-Tetrachlorobiphenyl (56)								
2,3,3',6-Tetrachlorobiphenyl (59)								
2,3,4,4'-Tetrachlorobiphenyl (60)								
2,3,4,5-Tetrachlorobiphenyl (61)								
2,3,4',5-Tetrachlorobiphenyl (63)								
2,3,4',6-Tetrachlorobiphenyl (64)								
2,3',4,4'-Tetrachlorobiphenyl (66)								
3,3',4,4'-Tetrachlorobiphenyl (77)								
3,4,4',5-Tetrachlorobiphenyl (81)								
2,2',3,3',4-Pentachlorobiphenyl (82)								
2,2',3,3',5-Pentachlorobiphenyl (83)								
2,2',3,3',6-Pentachlorobiphenyl (84)								
2,2',3,4,4'-Pentachlorobiphenyl (85)								
2,2',3,4,5-Pentachlorobiphenyl (86)								
2,2',3,4,6-Pentachlorobiphenyl (88)								
2,2',3,4,6'-Pentachlorobiphenyl (89)								
2,2',3,4',5-Pentachlorobiphenyl (90)								
2,2',3,5,5'-Pentachlorobiphenyl (92)								
2,2',3,5,6-Pentachlorobiphenyl (93)								
2,2',3,5',6-Pentachlorobiphenyl (95)								
2,3,3',4,4'-Pentachlorobiphenyl (105)								
2,3,3',4,5-Pentachlorobiphenyl (106)								
2,3,3',4',5'-Pentachlorobiphenyl (108)								
2,3,3',4',6-Pentachlorobiphenyl (110)								
2,3,4,4',5-Pentachlorobiphenyl (114)								
2,3',4,4',5-Pentachlorobiphenyl (118)								
3,3',4,4',5-Pentachlorobiphenyl (126)								
2,2',3,3',4,4'-Hexachlorobiphenyl (128)								
2,2',3,3',4,5-Hexachlorobiphenyl (129)								
2,2',3,3',4,5'-Hexachlorobiphenyl (130)								
2,2',3,3',4,6-Hexachlorobiphenyl (131)								
2,2',3,3',4,6'-Hexachlorobiphenyl (132)								
2,2',3,3',5,6-Hexachlorobiphenyl (134)								
2,2',3,3',5,6'-Hexachlorobiphenyl (135)								
2,2',3,3',6,6'-Hexachlorobiphenyl (136)								
2,2',3,4,4',5-Hexachlorobiphenyl (137)								
2,2',3,4,5,5'-Hexachlorobiphenyl (141)								

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2,2',3,4,5',6-Hexachlorobiphenyl (144)								
2,2',3,4',5,5'-Hexachlorobiphenyl (146)								
2,2',3,4',5,6-Hexachlorobiphenyl (147)								
2,2',4,4',5,5'-Hexachlorobiphenyl (153)								
2,3,3',4,4',5-Hexachlorobiphenyl (156)								
2,3,3',4,4',6-Hexachlorobiphenyl (158)								
2,3',4,4',5,5'-Hexachlorobiphenyl (167)								
3,3',4,4',5,5'-Hexachlorobiphenyl (169)								
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)								
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)								
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)								
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)								
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)								
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)								
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)								
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)								
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)								
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)								
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)								
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)								
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)								
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)								
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)								
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)								
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)								
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)								
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)								
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)								
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)								
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)								
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)								
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl								
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl								
Decachlorobiphenyl (209)								
PCB Congeners, Total								
Toxicity Equivalency (PCB)								

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PARAMETER	G-TS-19-P 6/11/2001	G-TS-21-P 5/25/2001	G-TS-22-L 6/7/2001	G-TS-22-N 6/7/2001	G-TS-22-P 5/26/2001	G-TS-29-L 6/7/2001	G-TS-29-N 6/7/2001	G-TS-29-P 5/26/2001
Other (%)								
Lipid_percent	17			6.18			11.2	

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Human and Wildlife. *Environ. Health Persp.* 106(12):775-792.

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Table A-36
Summary Statistics and Analytical Results for Tree Swallow - Lyman Mill

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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	L-TS-62-L 6/8/2001	L-TS-62-N 6/8/2001	L-TS-62-P 5/27/2001
Pesticides/PCBs (ug/Kg)										
4,4'-DDD	8	8			3.66	44.58	9.92		3.83 J	
4,4'-DDE	7	8	2.41	2.41	24.2	294.13	80.45		30.91 J	
4,4'-DDT	7	8	2.41	2.41	0.45	6.93	2.27		0.45 J	
Aldrin	0	8	2.41	9.31			2.34		2.87 UJ	
alpha-BHC	0	8	2.41	9.31			2.34		2.87 UJ	
alpha-Chlordane	8	8			2.65	18.5	5.94		4.26 J	
Aroclor, Total	8	8			529.9	1558.81	870.80		800.93 J	
Aroclor-1016	0	8	30.19	116.34			29.31		35.88 UJ	
Aroclor-1221	0	8	30.19	116.34			29.31		35.88 UJ	
Aroclor-1232	0	8	30.19	116.34			29.31		35.88 UJ	
Aroclor-1242	0	8	30.19	116.34			29.31		35.88 UJ	
Aroclor-1248	0	8	30.19	116.34			29.31		35.88 UJ	
Aroclor-1254	8	8			480.58	1362.9	796.10		754.29 J	
Aroclor-1260	0	8	30.19	116.34			29.31		35.88 UJ	
Aroclor-1268	8	8			31.25	195.91	74.70		46.64 J	
beta-BHC	0	8	2.41	9.31			2.34		2.87 UJ	
delta-BHC	0	8	2.41	9.31			2.34		2.87 UJ	
Dieldrin	8	8			4.14	13.96	8.66		6.14 J	
Endosulfan I	0	7	2.41	9.31			2.38		2.87 UJ	
Endosulfan II	0	8	2.41	9.31			2.34		2.87 UJ	
Endosulfan Sulfate	1	8	2.8	9.31	10.22	10.22	3.47		2.87 UJ	
Endrin	0	8	2.41	9.31			2.34		2.87 UJ	
Endrin Aldehyde	0	8	2.41	9.31			2.34		2.87 UJ	
Endrin Ketone	0	8	2.41	9.31			2.34		2.87 UJ	
gamma-BHC	0	8	2.41	9.31			2.34		2.87 UJ	
gamma-Chlordane	1	8	2.8	9.31	3.29	3.29	2.61		2.87 UJ	
Heptachlor	0	8	2.41	9.31			2.34		2.87 UJ	
Heptachlor Epoxide	7	8	2.41	2.41	4.54	30.08	8.38		5.06 J	
Methoxychlor	0	8	2.41	9.31			2.34		2.87 UJ	
Technical Chlordane	8	8			180.68	720.49	298.14		225.62 J	
Toxaphene	0	8	30.19	232.69			56.73		71.75 UJ	
Inorganics (mg/Kg)										
Aluminum	0	5	1.13	1.3			0.582	1.3 U		
Antimony	0	5	0.034	0.034			0.0170	0.034 U		
Arsenic	0	5	0.034	0.0414			0.0177	0.0414 U		

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Barium	0	5	0.011	0.0375			0.00974	0.0375 U		
Beryllium	0	5	0.005	0.005			0.00250	0.005 U		
Cadmium	0	5	0.201	0.201			0.101	0.201 U		
Chromium	0	5	0.271	0.271			0.136	0.271 U		
Cobalt	0	5	0.379	0.379			0.190	0.379 U		
Copper	5	5			4.6	7.61	5.798	4.6		
Iron	5	5			100	429	293	244 J		
Lead	0	5	0.023	0.181			0.0289	0.181 U		
Manganese	5	5			1.03	1.27	1.15	1.15		
Mercury	5	5			0.0285	0.055	0.0435	0.0511		
Mercury (methyl)	5	5			0.0231	0.047	0.0344	0.0383		
Molybdenum	5	5			0.473	0.604	0.558	0.568		
Nickel	0	5	0.323	0.323			0.162	0.323 U		
Selenium	0	5	0.463	0.576			0.260	0.576 U		
Silver	0	5	0.061	0.061			0.0305	0.061 U		
Thallium	0	5	0.023	0.023			0.0115	0.023 U		
Vanadium	0	5	0.18	0.18			0.0900	0.18 U		
Zinc	5	5			17.8	21.8	20.5	20.2 J		
Dioxins/Furans (ug/Kg)										
HCX	10	14	0.03625	0.08145	0.01514	0.08858	0.04373		0.03988 J	0.06878 J
TCX	0	4	0.56	1.6			0.60750		R	R
2,3,7,8-TCDD	14	14			0.17463	1.94943	1.07836		1.60987 J	1.52023 J
1,2,3,7,8-PeCDD	12	14	0.00452	0.00468	0.00301	0.01495	0.00752		0.00329 J	0.00468 UJ
1,2,3,4,7,8-HxCDD	14	14			0.00248	0.01554	0.00739		0.00309 J	0.00479 J
1,2,3,6,7,8-HxCDD	14	14			0.00565	0.14244	0.04743		0.00803 J	0.02819 J
1,2,3,7,8,9-HxCDD	14	14			0.00108	0.01166	0.00542		0.00213 J	0.00542 J
1,2,3,4,6,7,8-HpCDD	14	14			0.01828	1.08958	0.24429		0.02314 J	0.31292 J
OCDD	13	14	0.01437	0.01437	0.02133	3.57178	0.59468		0.01437 UJ	0.66108 J
2,3,7,8-TCDF	9	14	0.01003	0.02045	0.00612	0.01789	0.00891		0.00879 J	0.01093 UJ
1,2,3,7,8-PeCDF	11	14	0.00087	0.00261	0.00092	0.00938	0.00308		0.00148 J	0.00226 J
2,3,4,7,8-PeCDF	12	14	0.00081	0.01107	0.00209	0.01395	0.00510		0.00209 J	0.00299 J
1,2,3,4,7,8-HxCDF	14	14			0.00217	0.02098	0.00680		0.00268 J	0.00505 J
1,2,3,6,7,8-HxCDF	14	14			0.00157	0.00987	0.00517		0.00296 J	0.00428 J
2,3,4,6,7,8-HxCDF	12	14	0.00153	0.00181	0.0006	0.00564	0.00251		0.00092 J	0.00153 UJ
1,2,3,7,8,9-HxCDF	2	14	0.00027	0.00269	0.00032	0.00035	0.00060		0.00126 UJ	0.00269 UJ

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1,2,3,4,6,7,8-HpCDF	14	14			0.00372	0.22997	0.04809		0.00372 J	0.05164 J
1,2,3,4,7,8,9-HpCDF	7	14	0.00069	0.00386	0.00032	0.01644	0.00253		0.00176 UJ	0.00222 UJ
OCDF	4	14	0.00064	0.02691	0.01098	0.11623	0.01647		0.00066 UJ	0.02691 UJ
Total TCDD	14	14			0.17463	1.94943	1.07836		1.60987 J	1.52023 J
Total PeCDD	2	14	0.00301	0.0136	0.01495	0.05195	0.00794		0.00614 UJ	0.00468 UJ
Total HxCDD	14	14			0.00922	0.17004	0.06194		0.01325 J	0.04064 J
Total HpCDD	14	14			0.02106	1.11395	0.24958		0.02414 J	0.32017 J
Total TCDF	14	14			0.00766	0.03214	0.01504		0.01233 J	0.01188 J
Total PeCDF	11	14	0.00084	0.00942	0.00273	0.0251	0.00967		0.00713 J	0.00525 J
Total HxCDF	14	14			0.0065	0.05009	0.01920		0.00943 J	0.01265 J
Total HpCDF	13	14	0.01796	0.01796	0.00525	0.29435	0.05877		0.00548 J	0.06347 J
Toxicity Equivalency (Dioxins, Furans, HCX)	14	14			0.18	1.98	1.10		1.62	1.53
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)	0	4	0.01087	0.04101			0.01503		0.01087 UJ	0.04101 UJ
4-Chlorobiphenyl (3)	0	4	0.00912	0.04371			0.01696		0.00912 UJ	0.0398 UJ
2,2'-Dichlorobiphenyl (4)	0	4	0.09192	0.22364			0.07706		0.18942 UJ	0.22364 UJ
2,3-Dichlorobiphenyl (5)	2	4	0.01894	0.03849	0.007	0.01364	0.01234		0.01894 UJ	0.03849 UJ
2,3'-Dichlorobiphenyl (6)	0	4	0.01894	0.10814			0.02860		0.01894 UJ	0.10814 UJ
2,4-Dichlorobiphenyl (7)	2	4	0.01894	0.03849	0.01631	0.0225	0.01688		0.01894 UJ	0.03849 UJ
2,4'-Dichlorobiphenyl (8)	0	4	0.09556	0.28123			0.11384		0.09556 UJ	0.28123 UJ
2,5-Dichlorobiphenyl (9)	2	4	0.01894	0.03849	0.02106	0.02373	0.01838		0.01894 UJ	0.03849 UJ
2,6-Dichlorobiphenyl (10)	1	4	0.01894	0.03729	0.06738	0.06738	0.02776		0.01894 UJ	0.06738 J
3,4-Dichlorobiphenyl (12)	0	4	0.0341	0.07697			0.02416		0.03788 UJ	0.07697 UJ
2,2',3'-Trichlorobiphenyl (16)	2	4	0.13606	0.1424	0.11589	0.32278	0.14448		0.11589 J	0.32278 J
2,2',4-Trichlorobiphenyl (17)	4	4			0.08304	0.73724	0.34235		0.08304 J	0.73724 J
2,2',5-Trichlorobiphenyl (18)	4	4			0.1872	1.34032	0.62153		0.1872 J	1.34032 J
2,2',6-Trichlorobiphenyl (19)	2	4	0.02808	0.03297	0.02725	0.07717	0.03374		0.02725 J	0.07717 J
2,3,3'-Trichlorobiphenyl (20)	4	4			15.26512	30.82536	21.71928		21.93496 J	30.82536 J
2,3,4'-Trichlorobiphenyl (22)	1	4	0.28208	0.38483	0.26262	0.26262	0.18436		0.26262 J	0.38483 UJ
2,3,6-Trichlorobiphenyl (24)	3	3			0.05712	0.18046	0.10183			0.18046 J
2,3',4-Trichlorobiphenyl (25)	4	4			0.14868	0.30497	0.22033		0.30497 J	0.24674 J
2,3',5-Trichlorobiphenyl (26)	4	4			0.18826	0.36604	0.26208		0.18826 J	0.36604 J
2,4',5-Trichlorobiphenyl (31)	4	4			2.14252	4.6854	2.94266		4.6854 J	2.14252 J
2,4',6-Trichlorobiphenyl (32)	3	4	0.11135	0.11135	0.12122	0.23976	0.15120		0.18813 J	0.23976 J
2,2',3,3'-Tetrachlorobiphenyl (40)	4	4			1.23192	2.43561	1.81129		2.13246 J	2.43561 J
2,2',3,4'-Tetrachlorobiphenyl (42)	4	4			1.55461	3.72632	2.65053		3.72632 J	3.66971 J

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2,2',3,5-Tetrachlorobiphenyl (43)	4	4			35.32338	88.76388	52.77990		48.29586 J	88.76388 J
2,2',3,5'-Tetrachlorobiphenyl (44)	4	4			11.70012	29.05629	18.04367		19.43838 J	29.05629 J
2,2',3,6-Tetrachlorobiphenyl (45)	4	4			0.15534	0.49702	0.26428		0.20452 J	0.49702 J
2,2',3,6'-Tetrachlorobiphenyl (46)	3	4	0.03824	0.03824	0.05889	0.10366	0.06557		0.08059 J	0.10366 J
2,2',4,5-Tetrachlorobiphenyl (48)	4	4			0.36034	1.74596	0.83169		0.36034 J	1.74596 J
2,2',4,5'-Tetrachlorobiphenyl (49)	4	4			12.11508	30.71332	20.24445		23.2319 J	30.71332 J
2,2',4,6-Tetrachlorobiphenyl (50)	4	4			0.34936	1.1521	0.73826		0.81454 J	1.1521 J
2,3,3',4'-Tetrachlorobiphenyl (56)	4	4			0.94548	1.60025	1.21919		1.17476 J	1.60025 J
2,3,3',6-Tetrachlorobiphenyl (59)	4	4			1.11819	2.76783	1.76942		1.88871 J	2.76783 J
2,3,4,4'-Tetrachlorobiphenyl (60)	4	4			2.67321	5.69499	4.11097		4.85404 J	5.69499 J
2,3,4,5-Tetrachlorobiphenyl (61)	4	4			19.30856	37.641	27.43295		37.641 J	30.10876 J
2,3,4',5-Tetrachlorobiphenyl (63)	4	4			0.90906	2.34683	1.56350		2.34683 J	1.95444 J
2,3,4',6-Tetrachlorobiphenyl (64)	4	4			3.609	12.82648	7.25706		12.82648 J	8.15325 J
2,3',4,4'-Tetrachlorobiphenyl (66)	4	4			31.70463	62.5404	45.10305		52.92582 J	62.5404 J
3,3',4,4'-Tetrachlorobiphenyl (77)	4	4			1.86388	3.60851	2.65237		2.76879 J	3.60851 J
3,4,4',5-Tetrachlorobiphenyl (81)	1	4	0.18942	0.37286	0.20535	0.20535	0.16043		0.18942 UJ	0.20535 J
2,2',3,3',4-Pentachlorobiphenyl (82)	4	4			2.04504	4.33631	3.25816		4.33631 J	4.19402 J
2,2',3,3',5-Pentachlorobiphenyl (83)	4	4			38.70298	97.71136	71.40400		92.67738 J	97.71136 J
2,2',3,3',6-Pentachlorobiphenyl (84)	4	4			1.7284	5.85337	3.31782		5.85337 J	3.90309 J
2,2',3,4,4'-Pentachlorobiphenyl (85)	4	4			12.24642	30.15546	21.47661		26.0448 J	30.15546 J
2,2',3,4,5-Pentachlorobiphenyl (86)	4	4			32.81214	76.68846	53.54804		64.94208 J	76.68846 J
2,2',3,4,6-Pentachlorobiphenyl (88)	4	4			4.28172	11.452	7.81418		9.58786 J	11.452 J
2,2',3,4,6'-Pentachlorobiphenyl (89)	4	4			0.06215	0.16457	0.10051		0.11236 J	0.16457 J
2,2',3,4',5-Pentachlorobiphenyl (90)	4	4			82.78629	190.41132	132.71456		155.87511 J	190.41132 J
2,2',3,5,5'-Pentachlorobiphenyl (92)	4	4			12.27916	30.16225	21.28166		27.19554 J	30.16225 J
2,2',3,5,6-Pentachlorobiphenyl (93)	4	4			1.77408	74.9512	34.33423		1.77408 J	74.9512 J
2,2',3,5',6-Pentachlorobiphenyl (95)	1	1			47.67173	47.67173	47.67173		47.67173 J	
2,3,3',4,4'-Pentachlorobiphenyl (105)	4	4			17.72065	41.02253	29.14717		34.80465 J	41.02253 J
2,3,3',4,5-Pentachlorobiphenyl (106)	4	4			1.18568	18.55659	11.23146		13.73389 J	18.55659 J
2,3,3',4',5'-Pentachlorobiphenyl (108)	4	4			1.33304	1.93446	1.62667		1.3997 J	1.83948 J
2,3,3',4',6-Pentachlorobiphenyl (110)	4	4			43.85024	114.02182	79.43185		114.02182 J	102.73056 J
2,3,4,4',5-Pentachlorobiphenyl (114)	4	4			1.05166	2.58246	1.88867		2.43978 J	2.58246 J
2,3',4,4',5-Pentachlorobiphenyl (118)	4	4			73.8976	191.5383	127.88159		139.46338 J	191.5383 J
3,3',4,4',5-Pentachlorobiphenyl (126)	4	4			0.22606	0.58553	0.39688		0.33258 J	0.58553 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)	4	4			12.18292	36.40532	23.48305		24.19108 J	36.40532 J
2,2',3,3',4,5-Hexachlorobiphenyl (129)	4	4			93.30512	244.95368	163.32587		168.99732 J	244.95368 J

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2,2',3,3',4,5'-Hexachlorobiphenyl (130)	4	4			4.97963	15.53646	10.45022		11.7893 J	15.53646 J
2,2',3,3',4,6-Hexachlorobiphenyl (131)	2	4	0.18942	0.37286	0.41196	0.81605	0.37729		0.18942 UJ	0.81605 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)	4	4			7.90507	24.28209	16.22981		18.07924 J	24.28209 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)	4	4			0.61078	2.83802	1.38602		2.83802 J	1.3499 J
2,2',3,3',5,6'-Hexachlorobiphenyl (135)	4	4			6.45042	21.38874	14.91695		21.38874 J	19.40994 J
2,2',3,3',6,6'-Hexachlorobiphenyl (136)	4	4			0.5806	3.3638	1.65643		3.3638 J	1.692 J
2,2',3,4,4',5-Hexachlorobiphenyl (137)	4	4			7.4431	21.5543	15.13852		17.80798 J	21.5543 J
2,2',3,4,5,5'-Hexachlorobiphenyl (141)	4	4			9.13628	25.41841	17.93864		21.92965 J	25.41841 J
2,2',3,4,5',6-Hexachlorobiphenyl (144)	4	4			1.34476	4.09833	2.96990		3.70532 J	4.09833 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)	4	4			9.76878	27.66532	19.24629		20.81316 J	27.66532 J
2,2',3,4',5,6-Hexachlorobiphenyl (147)	4	4			28.04194	82.17032	56.19012		71.73298 J	82.17032 J
2,2',4,4',5,5'-Hexachlorobiphenyl (153)	4	4			73.65058	187.20388	130.51355		136.2119 J	187.20388 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)	4	4			10.61046	26.34852	17.84632		19.88718 J	26.34852 J
2,3,3',4,4',6-Hexachlorobiphenyl (158)	4	4			8.22645	23.78704	16.11220		17.99258 J	23.78704 J
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	4	4			2.40552	11.20758	7.06252		7.79959 J	11.20758 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	4	4			0.05933	0.42701	0.22089		0.42701 J	0.17323 J
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	4	4			16.5357	31.36989	21.62344		17.9305 J	31.36989 J
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	4	4			3.24232	6.97556	4.92282		4.78722 J	6.97556 J
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	4	4			3.33004	6.26311	4.45084		3.89728 J	6.26311 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	4	4			5.01276	15.28749	9.42443		15.28749 J	10.05289 J
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	4	4			0.39294	0.86905	0.62123		0.47576 J	0.86905 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	4	4			0.20445	0.55459	0.36240		0.55459 J	0.35931 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	4	4			5.23906	11.48732	8.12568		7.95678 J	11.48732 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	4	4			2.11081	3.83242	3.18837		2.99333 J	3.83242 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	4	4			33.82052	64.37468	47.23077		33.82052 J	64.37468 J
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	2	4	0.62093	0.7697	0.07169	0.17046	0.23437		0.17046 J	0.7697 UJ
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	3	3			6.17357	12.25279	9.74968			12.25279 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	2	4	0.62093	0.74571	0.03171	0.0704	0.19636		0.03171 J	0.0704 J
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	3	3			0.92593	1.51174	1.18373			1.51174 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	4	4			14.93669	27.45371	20.73380		15.15028 J	27.45371 J
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	4	4			0.63049	1.21468	0.87958		0.73489 J	1.21468 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)	4	4			2.9688	7.40044	4.88106		2.9688 J	7.40044 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)	4	4			0.6185	1.09704	0.78875		0.62461 J	1.09704 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)	4	4			4.62641	11.6594	9.04521		4.62641 J	11.6594 J
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)	4	4			1.24464	2.73723	2.11017		1.24464 J	2.73723 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)	4	4			2.96745	5.92288	4.40160		2.96745 J	5.92288 J

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2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)	4	4			0.13743	0.3749	0.27642		0.3749 J	0.2982 J
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)	4	4			15.29276	29.18878	21.10631		16.95942 J	29.18878 J
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)	3	3			0.27504	0.41674	0.33697			0.41674 J
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)	4	4			0.82658	1.80137	1.31192		1.04549 J	1.80137 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)	4	4			7.90043	20.36787	13.28527		7.90043 J	20.36787 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)	4	4			0.25966	0.5311	0.39562		0.25966 J	0.5311 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	4	4			14.12947	28.58388	20.12606		14.83986 J	22.95102 J
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	4	4			1.13928	2.7651	1.91837		1.13928 J	2.47154 J
Decachlorobiphenyl (209)	4	4			5.90031	19.6084	10.23372		7.33204 J	8.09411 J
PCB Congeners, Total	4	4			950.90291	2237.06392	1562.89976		1719.98413 J	2237.06392 J
Toxicity Equivalency (PCB)	4	4			0.0385	0.0986	0.0679		0.0665	0.0986
Other (%)										
Lipid_percent	9	9			4	8.51	5.83		6.19	

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Pesticides/PCBs (ug/Kg)									
4,4'-DDD		4.03	44.58		6.64 J				4.84 J
4,4'-DDE		24.2 J	2.41 U		294.13				67.28 J
4,4'-DDT		2.41 U	4.03		6.93 J				1.04 J
Aldrin		3.19 UJ	2.41 U		9.31 U				4.18 UJ
alpha-BHC		3.19 UJ	2.41 U		9.31 U				4.18 UJ
alpha-Chlordane		2.92 J	9.82		18.5				3.13 J
Aroclor, Total		552.87 J	914.28		1558.81				841 J
Aroclor-1016		39.85 UJ	30.19 U		116.34 U				52.29 UJ
Aroclor-1221		39.85 UJ	30.19 U		116.34 U				52.29 UJ
Aroclor-1232		39.85 UJ	30.19 U		116.34 U				52.29 UJ
Aroclor-1242		39.85 UJ	30.19 U		116.34 U				52.29 UJ
Aroclor-1248		39.85 UJ	30.19 U		116.34 U				52.29 UJ
Aroclor-1254		521.62 J	870.67		1362.9				798.12 J
Aroclor-1260		39.85 UJ	30.19 U		116.34 U				52.29 UJ
Aroclor-1268		31.25 J	43.6		195.91				42.89 J
beta-BHC		3.19 UJ	2.41 U		9.31 U				4.18 UJ
delta-BHC		3.19 UJ	2.41 UJ		9.31 U				4.18 UJ
Dieldrin		5.24 J	7.2		13.45				9.6 J
Endosulfan I		3.19 UJ	2.41 U		9.31 U				R
Endosulfan II		3.19 UJ	2.41 U		9.31 U				4.18 UJ
Endosulfan Sulfate		3.19 UJ	10.22		9.31 U				4.18 UJ
Endrin		3.19 UJ	2.41 U		9.31 U				4.18 UJ
Endrin Aldehyde		3.19 UJ	2.41 U		9.31 UJ				4.18 UJ
Endrin Ketone		3.19 UJ	2.41 U		9.31 U				4.18 UJ
gamma-BHC		3.19 UJ	2.41 UJ		9.31 U				4.18 UJ
gamma-Chlordane		3.19 UJ	3.29		9.31 U				4.18 UJ
Heptachlor		3.19 UJ	2.41 U		9.31 U				4.18 UJ
Heptachlor Epoxide		4.65 J	2.41 U		30.08 J				7.97 J
Methoxychlor		3.19 UJ	2.41 U		9.31 U				4.18 UJ
Technical Chlordane		189.28 J	180.68		720.49 J				314.12 J
Toxaphene		79.7 UJ	30.19 U		232.69 U				104.57 UJ
Inorganics (mg/Kg)									
Aluminum	1.13 U							1.13 U	
Antimony	0.034 U							0.034 U	
Arsenic	0.034 U							0.034 U	

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Barium	0.011 U							0.0235 U	
Beryllium	0.005 U							0.005 U	
Cadmium	0.201 U							0.201 U	
Chromium	0.271 U							0.271 U	
Cobalt	0.379 U							0.379 U	
Copper	5.19							6.32	
Iron	100 J							397 J	
Lead	0.023 U							0.023 U	
Manganese	1.27							1.27	
Mercury	0.0511							0.055	
Mercury (methyl)	0.0357							0.047	
Molybdenum	0.56							0.604	
Nickel	0.323 U							0.323 U	
Selenium	0.54 U							0.553 U	
Silver	0.061 U							0.061 U	
Thallium	0.023 U							0.023 U	
Vanadium	0.18 U							0.18 U	
Zinc	21.4 J							21.4 J	
Dioxins/Furans (ug/Kg)									
HCX		0.03625 UJ		0.0444		0.06214 J	0.04971 J		0.02125 J
TCX		R		R		R	R		R
2,3,7,8-TCDD		0.17463 J		0.55762 J		1.94943 J	0.90615 J		1.51845 J
1,2,3,7,8-PeCDD		0.00301 J		0.00452 UJ		0.01323 J	0.01353 J		0.00435 J
1,2,3,4,7,8-HxCDD		0.00248 J		0.00423 J		0.0115 J	0.01414 J		0.00454 J
1,2,3,6,7,8-HxCDD		0.00565 J		0.03207 J		0.05806 J	0.09099 J		0.01429 J
1,2,3,7,8,9-HxCDD		0.00108 J		0.0037 J		0.00475 J	0.0108 J		0.00226 J
1,2,3,4,6,7,8-HpCDD		0.01828 J		0.16599 J		0.09412 J	0.38702 J		0.03411 J
OCDD		0.02529 J		0.2341 J		0.08033 J	0.52266 J		0.02133 J
2,3,7,8-TCDF		0.00612 J		0.01252 UJ$		0.01989 UJ$	0.02045 UJ$		0.00921 J
1,2,3,7,8-PeCDF		0.00092 J		0.00121 UJ		0.00458 J	0.00559 J		0.00235 J
2,3,4,7,8-PeCDF		0.01107 UJ		0.00273 J		0.0073 J	0.00883 J		0.00575 J
1,2,3,4,7,8-HxCDF		0.00222 J		0.00386 J		0.00591 J	0.00937 J		0.00302 J
1,2,3,6,7,8-HxCDF		0.00157 J		0.00412 J		0.006 J	0.00902 J		0.00287 J
2,3,4,6,7,8-HxCDF		0.0006 J		0.0025 J		0.00336 J	0.00563 J		0.00098 J
1,2,3,7,8,9-HxCDF		0.0023 UJ		0.00102 UJ		0.00086 UJ	0.00068 UJ		0.00085 UJ

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1,2,3,4,6,7,8-HpCDF		0.00378 J		0.03636 J		0.01618 J	0.07879 J		0.00586 J
1,2,3,4,7,8,9-HpCDF		0.00222 UJ		0.00135 UJ		0.00069 UJ	0.00258 UJ		0.00038 J
OCDF		0.00288 UJ		0.0112 UJ		0.00368 UJ	0.0199 UJ		0.00115 UJ
Total TCDD		0.17463 J		0.55762 J		1.94943 J	0.90615 J		1.51845 J
Total PeCDD		0.00301 UJ		0.00452 UJ		0.01323 UJ	0.0136 UJ		0.00435 UJ
Total HxCDD		0.00922 J		0.04 J		0.0743 J	0.1182 J		0.02215 J
Total HpCDD		0.02106 J		0.16936 J		0.09548 J	0.39238 J		0.03547 J
Total TCDF		0.00779 J		0.00766 J		0.02076 J	0.0256 J		0.03214 J
Total PeCDF		0.00425 J		0.00273 J		0.01452 J	0.02009 J		0.01098 J
Total HxCDF		0.01011 J		0.01795 J		0.01628 J	0.0303 J		0.00931 J
Total HpCDF		0.00837 J		0.04557 J		0.01796 UJ	0.08871 J		0.0088 J
Toxicity Equivalency (Dioxins, Furans, HCX)		0.18		0.566		1.98	0.943		1.53
PCB Congeners (ug/Kg)									
2-Monochlorobiphenyl (1)				0.03233 UJ					
4-Chlorobiphenyl (3)				0.04301 UJ					
2,2'-Dichlorobiphenyl (4)				0.11153 UJ					
2,3-Dichlorobiphenyl (5)				0.01364 J					
2,3'-Dichlorobiphenyl (6)				0.05253 UJ					
2,4-Dichlorobiphenyl (7)				0.0225 J					
2,4'-Dichlorobiphenyl (8)				0.27962 UJ					
2,5-Dichlorobiphenyl (9)				0.02373 J					
2,6-Dichlorobiphenyl (10)				0.03729 UJ					
3,4-Dichlorobiphenyl (12)				0.04436 UJ					
2,2',3'-Trichlorobiphenyl (16)				0.13606 UJ					
2,2',4-Trichlorobiphenyl (17)				0.27127 J					
2,2',5-Trichlorobiphenyl (18)				0.49324 J					
2,2',6-Trichlorobiphenyl (19)				0.03297 UJ					
2,3,3'-Trichlorobiphenyl (20)				18.85168 J					
2,3,4'-Trichlorobiphenyl (22)				0.28208 UJ					
2,3,6-Trichlorobiphenyl (24)				0.0679 J					
2,3',4-Trichlorobiphenyl (25)				0.14868 J					
2,3',5-Trichlorobiphenyl (26)				0.2343 J					
2,4',5-Trichlorobiphenyl (31)				2.15852 J					
2,4',6-Trichlorobiphenyl (32)				0.11135 UJ					
2,2',3,3'-Tetrachlorobiphenyl (40)				1.23192 J					
2,2',3,4'-Tetrachlorobiphenyl (42)				1.65146 J					

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2,2',3,5-Tetrachlorobiphenyl (43)				38.73648 J					
2,2',3,5'-Tetrachlorobiphenyl (44)				11.70012 J					
2,2',3,6-Tetrachlorobiphenyl (45)				0.20022 J					
2,2',3,6'-Tetrachlorobiphenyl (46)				0.05889 J					
2,2',4,5-Tetrachlorobiphenyl (48)				0.70734 J					
2,2',4,5'-Tetrachlorobiphenyl (49)				12.11508 J					
2,2',4,6-Tetrachlorobiphenyl (50)				0.63702 J					
2,3,3',4'-Tetrachlorobiphenyl (56)				0.94548 J					
2,3,3',6-Tetrachlorobiphenyl (59)				1.11819 J					
2,3,4,4'-Tetrachlorobiphenyl (60)				3.22165 J					
2,3,4,5-Tetrachlorobiphenyl (61)				19.30856 J					
2,3,4',5-Tetrachlorobiphenyl (63)				0.90906 J					
2,3,4',6-Tetrachlorobiphenyl (64)				3.609 J					
2,3',4,4'-Tetrachlorobiphenyl (66)				31.70463 J					
3,3',4,4'-Tetrachlorobiphenyl (77)				1.86388 J					
3,4,4',5-Tetrachlorobiphenyl (81)				0.37286 UJ					
2,2',3,3',4-Pentachlorobiphenyl (82)				2.04504 J					
2,2',3,3',5-Pentachlorobiphenyl (83)				38.70298 J					
2,2',3,3',6-Pentachlorobiphenyl (84)				1.7284 J					
2,2',3,4,4'-Pentachlorobiphenyl (85)				12.24642 J					
2,2',3,4,5-Pentachlorobiphenyl (86)				32.81214 J					
2,2',3,4,6-Pentachlorobiphenyl (88)				4.28172 J					
2,2',3,4,6'-Pentachlorobiphenyl (89)				0.06296 J					
2,2',3,4',5-Pentachlorobiphenyl (90)				82.78629 J					
2,2',3,5,5'-Pentachlorobiphenyl (92)				12.27916 J					
2,2',3,5,6-Pentachlorobiphenyl (93)				28.867 J					
2,2',3,5',6-Pentachlorobiphenyl (95)									
2,3,3',4,4'-Pentachlorobiphenyl (105)				17.72065 J					
2,3,3',4,5-Pentachlorobiphenyl (106)				1.18568 J					
2,3,3',4',5'-Pentachlorobiphenyl (108)				1.33304 J					
2,3,3',4',6-Pentachlorobiphenyl (110)				43.85024 J					
2,3,4,4',5-Pentachlorobiphenyl (114)				1.05166 J					
2,3',4,4',5-Pentachlorobiphenyl (118)				73.8976 J					
3,3',4,4',5-Pentachlorobiphenyl (126)				0.22606 J					
2,2',3,3',4,4'-Hexachlorobiphenyl (128)				12.18292 J					
2,2',3,3',4,5-Hexachlorobiphenyl (129)				93.30512 J					

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2,2',3,3',4,5'-Hexachlorobiphenyl (130)				4.97963 J					
2,2',3,3',4,6-Hexachlorobiphenyl (131)				0.37286 UJ					
2,2',3,3',4,6'-Hexachlorobiphenyl (132)				7.90507 J					
2,2',3,3',5,6-Hexachlorobiphenyl (134)				0.61078 J					
2,2',3,3',5,6'-Hexachlorobiphenyl (135)				6.45042 J					
2,2',3,3',6,6'-Hexachlorobiphenyl (136)				0.5806 J					
2,2',3,4,4',5-Hexachlorobiphenyl (137)				7.4431 J					
2,2',3,4,5,5'-Hexachlorobiphenyl (141)				9.13628 J					
2,2',3,4,5',6-Hexachlorobiphenyl (144)				1.34476 J					
2,2',3,4',5,5'-Hexachlorobiphenyl (146)				9.76878 J					
2,2',3,4',5,6-Hexachlorobiphenyl (147)				28.04194 J					
2,2',4,4',5,5'-Hexachlorobiphenyl (153)				73.65058 J					
2,3,3',4,4',5-Hexachlorobiphenyl (156)				10.61046 J					
2,3,3',4,4',6-Hexachlorobiphenyl (158)				8.22645 J					
2,3',4,4',5,5'-Hexachlorobiphenyl (167)				2.40552 J					
3,3',4,4',5,5'-Hexachlorobiphenyl (169)				0.05933 J					
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)				16.5357 J					
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)				3.24232 J					
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)				3.33004 J					
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)				5.01276 J					
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)				0.39294 J					
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)				0.20445 J					
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)				5.23906 J					
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)				2.11081 J					
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)				40.29554 J					
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)				0.07169 J					
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)				6.17357 J					
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)				0.74571 UJ					
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)				0.92593 J					
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)				14.93669 J					
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)				0.63049 J					
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)				4.30974 J					
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)				0.6185 J					
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)				9.29559 J					
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)				1.9643 J					
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)				3.29084 J					

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2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)				0.13743 J					
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)				15.29276 J					
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)				0.27504 J					
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)				0.82658 J					
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)				10.37627 J					
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)				0.30333 J					
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl				14.12947 J					
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl				1.29754 J					
Decachlorobiphenyl (209)				5.90031 J					
PCB Congeners, Total				950.90291 J					
Toxicity Equivalency (PCB)				0.0385					
Other (%)									
Lipid_percent		8.51			5.15				7.03

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Pesticides/PCBs (ug/Kg)										
4,4'-DDD			3.66 J			5.8 J				5.94 J
4,4'-DDE			151.76			24.79 J				49.35 J
4,4'-DDT			2.61 J			1.03 J				0.87 J
Aldrin			8.72 U			2.8 UJ				4.03 UJ
alpha-BHC			8.72 U			2.8 UJ				4.03 UJ
alpha-Chlordane			2.87 J			2.65 J				3.34 J
Aroclor, Total			1060.57 J			529.9 J				708.03 J
Aroclor-1016			108.99 U			34.98 UJ				50.42 UJ
Aroclor-1221			108.99 U			34.98 UJ				50.42 UJ
Aroclor-1232			108.99 U			34.98 UJ				50.42 UJ
Aroclor-1242			108.99 U			34.98 UJ				50.42 UJ
Aroclor-1248			108.99 U			34.98 UJ				50.42 UJ
Aroclor-1254			936.74 J			480.58 J				643.9 J
Aroclor-1260			108.99 U			34.98 UJ				50.42 UJ
Aroclor-1268			123.83			49.32 J				64.12 J
beta-BHC			8.72 U			2.8 UJ				4.03 UJ
delta-BHC			8.72 U			2.8 UJ				4.03 UJ
Dieldrin			9.55 J			4.14 J				13.96 J
Endosulfan I			8.72 U			2.8 UJ				4.03 UJ
Endosulfan II			8.72 U			2.8 UJ				4.03 UJ
Endosulfan Sulfate			8.72 U			2.8 UJ				4.03 UJ
Endrin			8.72 U			2.8 UJ				4.03 UJ
Endrin Aldehyde			8.72 UJ			2.8 UJ				4.03 UJ
Endrin Ketone			8.72 U			2.8 UJ				4.03 UJ
gamma-BHC			8.72 U			2.8 UJ				4.03 UJ
gamma-Chlordane			8.72 U			2.8 UJ				4.03 UJ
Heptachlor			8.72 U			2.8 UJ				4.03 UJ
Heptachlor Epoxide			8.96 J			4.54 J				4.54 J
Methoxychlor			8.72 U			2.8 UJ				4.03 UJ
Technical Chlordane			232.15 J			226.19 J				296.57 J
Toxaphene			217.98 U			69.95 UJ				100.85 UJ
Inorganics (mg/Kg)										
Aluminum					1.13 U			1.13 U		
Antimony					0.034 U			0.034 U		
Arsenic					0.034 U			0.034 U		

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Barium					0.0111 U			0.0143 U		
Beryllium					0.005 U			0.005 U		
Cadmium					0.201 U			0.201 U		
Chromium					0.271 U			0.271 U		
Cobalt					0.379 U			0.379 U		
Copper					5.27			7.61		
Iron					293 J			429 J		
Lead					0.0388 U			0.023 U		
Manganese					1.03			1.04		
Mercury					0.0285			0.0316		
Mercury (methyl)					0.0231			0.028		
Molybdenum					0.473			0.583		
Nickel					0.323 U			0.323 U		
Selenium					0.463 U			0.465 U		
Silver					0.061 U			0.061 U		
Thallium					0.023 U			0.023 U		
Vanadium					0.18 U			0.18 U		
Zinc					17.8 J			21.8 J		
Dioxins/Furans (ug/Kg)										
HCX	0.06606 UJ			0.08858 J		0.02413 J	0.08145 UJ			0.01514 J
TCX	1.3 UJ			0.56 UJ		R	1.6 UJ			R
2,3,7,8-TCDD	0.68813 J			1.48363 J		0.94437 J	0.983 J			1.02536 J
1,2,3,7,8-PeCDD	0.00696 J			0.01495 J		0.00489 J	0.01016 J			0.00444 J
1,2,3,4,7,8-HxCDD	0.00847 J			0.01554 J		0.00458 J	0.00922 J			0.00444 J
1,2,3,6,7,8-HxCDD	0.08062 J			0.14244 J		0.0173 J	0.08451 J			0.01492 J
1,2,3,7,8,9-HxCDD	0.00594 J			0.00879 J		0.00215 J	0.01166 J			0.00246 J
1,2,3,4,6,7,8-HpCDD	0.23981 J			0.36052 J		0.05355 J	1.08958 J			0.04457 J
OCDD	0.41114 J			0.59132 J		0.06127 J	3.57178 J			0.05621 J
2,3,7,8-TCDF	0.01018 J$			0.01789 J$		0.00702 J	0.01141 J$			0.00724 J
1,2,3,7,8-PeCDF	0.00938 J			0.0083 J		0.00148 J	0.00317 J			0.00133 J
2,3,4,7,8-PeCDF	0.01395 J			0.00999 J		0.0021 J	0.00421 J			0.00209 J
1,2,3,4,7,8-HxCDF	0.01066 J			0.01096 J		0.00234 J	0.02098 J			0.00217 J
1,2,3,6,7,8-HxCDF	0.00715 J			0.00932 J		0.00198 J	0.00987 J			0.00201 J
2,3,4,6,7,8-HxCDF	0.00374 J			0.00533 J		0.00084 J	0.00564 J			0.00096 J
1,2,3,7,8,9-HxCDF	0.00133 UJ			0.00035 J		0.00027 UJ	0.00126 UJ			0.00075 UJ

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PARAMETER	L-TS-70-P 5/26/2001	L-TS-73-P 5/30/2001 DUPLICATE	L-TS-73-P 5/30/2001	L-TS-83-P 5/25/2001	L-TS-84-L 6/9/2001	L-TS-84-N 6/9/2001	L-TS-84-P 5/28/2001	L-TS-89-L 6/12/2001	L-TS-89-N 6/12/2001 DUPLICATE	L-TS-89-N 6/12/2001
1,2,3,4,6,7,8-HpCDF	0.04982 J			0.07864 J		0.00542 J	0.22997 J			0.00442 J
1,2,3,4,7,8,9-HpCDF	0.00146 J			0.00407 J		0.00042 J	0.01644 J			0.00032 J
OCDF	0.02089 J			0.03892 J		0.0012 UJ	0.11623 J			0.00064 UJ
Total TCDD	0.68813 J			1.48363 J		0.94437 J	0.983 J			1.02536 J
Total PeCDD	0.00696 UJ			0.01495 J		0.00771 UJ	0.01016 UJ			0.00661 UJ
Total HxCDD	0.09654 J			0.17004 J		0.0263 J	0.11069 J			0.02304 J
Total HpCDD	0.24384 J			0.36833 J		0.05495 J	1.11395 J			0.04631 J
Total TCDF	0.01073 J			0.02431 J		0.00987 J	0.0126 J			0.00967 J
Total PeCDF	0.02471 J			0.0251 J		0.00667 J	0.00942 UJ			0.00519 J
Total HxCDF	0.02584 J			0.03562 J		0.0065 J	0.05009 J			0.00683 J
Total HpCDF	0.05702 J			0.09674 J		0.00719 J	0.29435 J			0.00525 J
Toxicity Equivalency (Dioxins, Furans, HCX)	0.718			1.53		0.955	1.02			1.03
PCB Congeners (ug/Kg)										
2-Monochlorobiphenyl (1)										
4-Chlorobiphenyl (3)										
2,2'-Dichlorobiphenyl (4)										
2,3-Dichlorobiphenyl (5)										
2,3'-Dichlorobiphenyl (6)										
2,4-Dichlorobiphenyl (7)										
2,4'-Dichlorobiphenyl (8)										
2,5-Dichlorobiphenyl (9)										
2,6-Dichlorobiphenyl (10)										
3,4-Dichlorobiphenyl (12)										
2,2',3'-Trichlorobiphenyl (16)										
2,2',4-Trichlorobiphenyl (17)										
2,2',5-Trichlorobiphenyl (18)										
2,2',6-Trichlorobiphenyl (19)										
2,3,3'-Trichlorobiphenyl (20)										
2,3,4'-Trichlorobiphenyl (22)										
2,3,6-Trichlorobiphenyl (24)										
2,3',4-Trichlorobiphenyl (25)										
2,3',5-Trichlorobiphenyl (26)										
2,4',5-Trichlorobiphenyl (31)										
2,4',6-Trichlorobiphenyl (32)										
2,2',3,3'-Tetrachlorobiphenyl (40)										
2,2',3,4'-Tetrachlorobiphenyl (42)										

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2,2',3,5-Tetrachlorobiphenyl (43)										
2,2',3,5'-Tetrachlorobiphenyl (44)										
2,2',3,6-Tetrachlorobiphenyl (45)										
2,2',3,6'-Tetrachlorobiphenyl (46)										
2,2',4,5-Tetrachlorobiphenyl (48)										
2,2',4,5'-Tetrachlorobiphenyl (49)										
2,2',4,6-Tetrachlorobiphenyl (50)										
2,3,3',4'-Tetrachlorobiphenyl (56)										
2,3,3',6-Tetrachlorobiphenyl (59)										
2,3,4,4'-Tetrachlorobiphenyl (60)										
2,3,4,5-Tetrachlorobiphenyl (61)										
2,3,4',5-Tetrachlorobiphenyl (63)										
2,3,4',6-Tetrachlorobiphenyl (64)										
2,3',4,4'-Tetrachlorobiphenyl (66)										
3,3',4,4'-Tetrachlorobiphenyl (77)										
3,4,4',5-Tetrachlorobiphenyl (81)										
2,2',3,3',4-Pentachlorobiphenyl (82)										
2,2',3,3',5-Pentachlorobiphenyl (83)										
2,2',3,3',6-Pentachlorobiphenyl (84)										
2,2',3,4,4'-Pentachlorobiphenyl (85)										
2,2',3,4,5-Pentachlorobiphenyl (86)										
2,2',3,4,6-Pentachlorobiphenyl (88)										
2,2',3,4,6'-Pentachlorobiphenyl (89)										
2,2',3,4',5-Pentachlorobiphenyl (90)										
2,2',3,5,5'-Pentachlorobiphenyl (92)										
2,2',3,5,6-Pentachlorobiphenyl (93)										
2,2',3,5',6-Pentachlorobiphenyl (95)										
2,3,3',4,4'-Pentachlorobiphenyl (105)										
2,3,3',4,5-Pentachlorobiphenyl (106)										
2,3,3',4',5'-Pentachlorobiphenyl (108)										
2,3,3',4',6-Pentachlorobiphenyl (110)										
2,3,4,4',5-Pentachlorobiphenyl (114)										
2,3',4,4',5-Pentachlorobiphenyl (118)										
3,3',4,4',5-Pentachlorobiphenyl (126)										
2,2',3,3',4,4'-Hexachlorobiphenyl (128)										
2,2',3,3',4,5-Hexachlorobiphenyl (129)										

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2,2',3,3',4,5'-Hexachlorobiphenyl (130)										
2,2',3,3',4,6-Hexachlorobiphenyl (131)										
2,2',3,3',4,6'-Hexachlorobiphenyl (132)										
2,2',3,3',5,6-Hexachlorobiphenyl (134)										
2,2',3,3',5,6'-Hexachlorobiphenyl (135)										
2,2',3,3',6,6'-Hexachlorobiphenyl (136)										
2,2',3,4,4',5-Hexachlorobiphenyl (137)										
2,2',3,4,5,5'-Hexachlorobiphenyl (141)										
2,2',3,4,5',6-Hexachlorobiphenyl (144)										
2,2',3,4',5,5'-Hexachlorobiphenyl (146)										
2,2',3,4',5,6-Hexachlorobiphenyl (147)										
2,2',4,4',5,5'-Hexachlorobiphenyl (153)										
2,3,3',4,4',5-Hexachlorobiphenyl (156)										
2,3,3',4,4',6-Hexachlorobiphenyl (158)										
2,3',4,4',5,5'-Hexachlorobiphenyl (167)										
3,3',4,4',5,5'-Hexachlorobiphenyl (169)										
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)										
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)										
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)										
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)										
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)										
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)										
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)										
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)										
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)										
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)										
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)										
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)										
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)										
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)										
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)										
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)										
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)										
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)										
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)										
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)										

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2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)										
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)										
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)										
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)										
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)										
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)										
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl										
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl										
Decachlorobiphenyl (209)										
PCB Congeners, Total										
Toxicity Equivalency (PCB)										
Other (%)										
Lipid_percent		5.79	4.48			5.42			4	5.9

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Pesticides/PCBs (ug/Kg)		
4,4'-DDD		
4,4'-DDE		
4,4'-DDT		
Aldrin		
alpha-BHC		
alpha-Chlordane		
Aroclor, Total		
Aroclor-1016		
Aroclor-1221		
Aroclor-1232		
Aroclor-1242		
Aroclor-1248		
Aroclor-1254		
Aroclor-1260		
Aroclor-1268		
beta-BHC		
delta-BHC		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan Sulfate		
Endrin		
Endrin Aldehyde		
Endrin Ketone		
gamma-BHC		
gamma-Chlordane		
Heptachlor		
Heptachlor Epoxide		
Methoxychlor		
Technical Chlordane		
Toxaphene		
Inorganics (mg/Kg)		
Aluminum		
Antimony		
Arsenic		

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PARAMETER	L-TS-89-P 5/31/2001	L-TS-90-P 5/26/2001
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Iron		
Lead		
Manganese		
Mercury		
Mercury (methyl)		
Molybdenum		
Nickel		
Selenium		
Silver		
Thallium		
Vanadium		
Zinc		
Dioxins/Furans (ug/Kg)		
HCX	0.07293 UJ	0.06986 J
TCX	1.4 UJ	R
2,3,7,8-TCDD	0.93022 J	0.80591 J
1,2,3,7,8-PeCDD	0.00753 J	0.01431 J
1,2,3,4,7,8-HxCDD	0.00898 J	0.0074 J
1,2,3,6,7,8-HxCDD	0.04225 J	0.04467 J
1,2,3,7,8,9-HxCDD	0.00878 J	0.00592 J
1,2,3,4,6,7,8-HpCDD	0.2978 J	0.2986 J
OCDD	1.02519 J	1.05663 J
2,3,7,8-TCDF	0.00992 J$	0.01003 UJ$
1,2,3,7,8-PeCDF	0.00261 UJ	0.00087 UJ
2,3,4,7,8-PeCDF	0.00342 J	0.00081 UJ
1,2,3,4,7,8-HxCDF	0.0094 J	0.00654 J
1,2,3,6,7,8-HxCDF	0.0064 J	0.00478 J
2,3,4,6,7,8-HxCDF	0.00294 J	0.00181 UJ
1,2,3,7,8,9-HxCDF	0.00032 J	0.00212 UJ

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PARAMETER	L-TS-89-P 5/31/2001	L-TS-90-P 5/26/2001
1,2,3,4,6,7,8-HpCDF	0.05759 J	0.05106 J
1,2,3,4,7,8,9-HpCDF	0.00504 J	0.00386 UJ
OCDF	0.01098 J	0.01879 UJ
Total TCDD	0.93022 J	0.80591 J
Total PeCDD	0.00753 UJ	0.05195 J
Total HxCDD	0.06153 J	0.0612 J
Total HpCDD	0.30161 J	0.30706 J
Total TCDF	0.01277 J	0.0125 J
Total PeCDF	0.00739 UJ	0.00084 UJ
Total HxCDF	0.02222 J	0.01567 J
Total HpCDF	0.07051 J	0.06232 J
Toxicity Equivalency (Dioxins, Furans, HCX)	0.952	0.831
PCB Congeners (ug/Kg)		
2-Monochlorobiphenyl (1)		0.03604 UJ
4-Chlorobiphenyl (3)		0.04371 UJ
2,2'-Dichlorobiphenyl (4)		0.09192 UJ
2,3-Dichlorobiphenyl (5)		0.007 J
2,3'-Dichlorobiphenyl (6)		0.04918 UJ
2,4-Dichlorobiphenyl (7)		0.01631 J
2,4'-Dichlorobiphenyl (8)		0.25427 UJ
2,5-Dichlorobiphenyl (9)		0.02106 J
2,6-Dichlorobiphenyl (10)		0.03105 UJ
3,4-Dichlorobiphenyl (12)		0.0341 UJ
2,2',3'-Trichlorobiphenyl (16)		0.1424 UJ
2,2',4-Trichlorobiphenyl (17)		0.27783 J
2,2',5-Trichlorobiphenyl (18)		0.46536 J
2,2',6-Trichlorobiphenyl (19)		0.02808 UJ
2,3,3'-Trichlorobiphenyl (20)		15.26512 J
2,3,4'-Trichlorobiphenyl (22)		0.2827 UJ
2,3,6-Trichlorobiphenyl (24)		0.05712 J
2,3',4-Trichlorobiphenyl (25)		0.18093 J
2,3',5-Trichlorobiphenyl (26)		0.25972 J
2,4',5-Trichlorobiphenyl (31)		2.7842 J
2,4',6-Trichlorobiphenyl (32)		0.12122 J
2,2',3,3'-Tetrachlorobiphenyl (40)		1.44516 J
2,2',3,4'-Tetrachlorobiphenyl (42)		1.55461 J

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PARAMETER	L-TS-89-P 5/31/2001	L-TS-90-P 5/26/2001
2,2',3,5-Tetrachlorobiphenyl (43)		35.32338 J
2,2',3,5'-Tetrachlorobiphenyl (44)		11.9799 J
2,2',3,6-Tetrachlorobiphenyl (45)		0.15534 J
2,2',3,6'-Tetrachlorobiphenyl (46)		0.03824 UJ
2,2',4,5-Tetrachlorobiphenyl (48)		0.5131 J
2,2',4,5'-Tetrachlorobiphenyl (49)		14.91748 J
2,2',4,6-Tetrachlorobiphenyl (50)		0.34936 J
2,3,3',4'-Tetrachlorobiphenyl (56)		1.15626 J
2,3,3',6-Tetrachlorobiphenyl (59)		1.30293 J
2,3,4,4'-Tetrachlorobiphenyl (60)		2.67321 J
2,3,4,5-Tetrachlorobiphenyl (61)		22.67348 J
2,3,4',5-Tetrachlorobiphenyl (63)		1.04365 J
2,3,4',6-Tetrachlorobiphenyl (64)		4.4395 J
2,3',4,4'-Tetrachlorobiphenyl (66)		33.24134 J
3,3',4,4'-Tetrachlorobiphenyl (77)		2.3683 J
3,4,4',5-Tetrachlorobiphenyl (81)		0.31046 UJ
2,2',3,3',4-Pentachlorobiphenyl (82)		2.45726 J
2,2',3,3',5-Pentachlorobiphenyl (83)		56.52428 J
2,2',3,3',6-Pentachlorobiphenyl (84)		1.78643 J
2,2',3,4,4'-Pentachlorobiphenyl (85)		17.45976 J
2,2',3,4,5-Pentachlorobiphenyl (86)		39.74946 J
2,2',3,4,6-Pentachlorobiphenyl (88)		5.93512 J
2,2',3,4,6'-Pentachlorobiphenyl (89)		0.06215 J
2,2',3,4',5-Pentachlorobiphenyl (90)		101.7855 J
2,2',3,5,5'-Pentachlorobiphenyl (92)		15.48968 J
2,2',3,5,6-Pentachlorobiphenyl (93)		31.74465 J
2,2',3,5',6-Pentachlorobiphenyl (95)		
2,3,3',4,4'-Pentachlorobiphenyl (105)		23.04084 J
2,3,3',4,5-Pentachlorobiphenyl (106)		11.44968 J
2,3,3',4',5'-Pentachlorobiphenyl (108)		1.93446 J
2,3,3',4',6-Pentachlorobiphenyl (110)		57.12476 J
2,3,4,4',5-Pentachlorobiphenyl (114)		1.48078 J
2,3',4,4',5-Pentachlorobiphenyl (118)		106.62709 J
3,3',4,4',5-Pentachlorobiphenyl (126)		0.44333 J
2,2',3,3',4,4'-Hexachlorobiphenyl (128)		21.15288 J
2,2',3,3',4,5-Hexachlorobiphenyl (129)		146.04736 J

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PARAMETER	L-TS-89-P 5/31/2001	L-TS-90-P 5/26/2001
2,2',3,3',4,5'-Hexachlorobiphenyl (130)		9.49547 J
2,2',3,3',4,6-Hexachlorobiphenyl (131)		0.41196 J
2,2',3,3',4,6'-Hexachlorobiphenyl (132)		14.65285 J
2,2',3,3',5,6-Hexachlorobiphenyl (134)		0.74536 J
2,2',3,3',5,6'-Hexachlorobiphenyl (135)		12.41871 J
2,2',3,3',6,6'-Hexachlorobiphenyl (136)		0.9893 J
2,2',3,4,4',5-Hexachlorobiphenyl (137)		13.74868 J
2,2',3,4,5,5'-Hexachlorobiphenyl (141)		15.2702 J
2,2',3,4,5',6-Hexachlorobiphenyl (144)		2.73118 J
2,2',3,4',5,5'-Hexachlorobiphenyl (146)		18.73788 J
2,2',3,4',5,6-Hexachlorobiphenyl (147)		42.81524 J
2,2',4,4',5,5'-Hexachlorobiphenyl (153)		124.98782 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)		14.53912 J
2,3,3',4,4',6-Hexachlorobiphenyl (158)		14.44274 J
2,3',4,4',5,5'-Hexachlorobiphenyl (167)		6.83736 J
3,3',4,4',5,5'-Hexachlorobiphenyl (169)		0.22399 J
2,2',3,3',4,4',5-Heptachlorobiphenyl (170)		20.65765 J
2,2',3,3',4,4',6-Heptachlorobiphenyl (171)		4.68618 J
2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)		4.31292 J
2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)		7.34459 J
2,2',3,3',4,5',6-Heptachlorobiphenyl (175)		0.74718 J
2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)		0.33123 J
2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)		7.81956 J
2,2',3,3',5,5',6-Heptachlorobiphenyl (178)		3.81693 J
2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)		50.43232 J
2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)		0.62093 UJ
2,2',3,4,4',5',6-Heptachlorobiphenyl (183)		10.82269 J
2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)		0.62093 UJ
2,2',3,4,5,5',6-Heptachlorobiphenyl (185)		1.11352 J
2,2',3,4',5,5',6-Heptachlorobiphenyl (187)		25.39451 J
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)		0.93827 J
2,3,3',4,4',5,6-Heptachlorobiphenyl (190)		4.84524 J
2,3,3',4,4',5',6-Heptachlorobiphenyl (191)		0.81483 J
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (194)		10.59944 J
2,2',3,3',4,4',5,6-Octachlorobiphenyl (195)		2.49452 J
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (196)		5.42523 J

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Table A-36
Summary Statistics and Analytical Results for Tree Swallow - Lyman Mill

Data Evaluation Report
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PARAMETER	L-TS-89-P 5/31/2001	L-TS-90-P 5/26/2001
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (197)		0.29513 J
2,2',3,3',4,5,5',6-Octachlorobiphenyl (198)		22.98426 J
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (200)		0.31912 J
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (201)		1.57423 J
2,2',3,4,4',5,5',6-Octachlorobiphenyl (203)		14.49651 J
2,3,3',4,4',5,5',6-Octachlorobiphenyl (205)		0.4884 J
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl		28.58388 J
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl		2.7651 J
Decachlorobiphenyl (209)		19.6084 J
PCB Congeners, Total		1343.64806 J
Toxicity Equivalency (PCB)		0.0679
Other (%)		
Lipid_percent		

NOTES:
SQL - Sample Quanitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
TCX - 2,3,6,7-Tetrachloroxanthene
OCDD - Octachlorinated dibenzodioxin
OCDF - Octachlorinated dibenzofuran
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Sample IDs ending in
N = Nestling
P = Egg
L = Liver

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Table A-37

Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
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PARAMETER	Frequency of Detection		Minimum SQL	Maximum SQL	Minimum Detect	Maximum Detect	Average	42828-1 8/14/2001 42828-1	42828-10 8/14/2001 42828-10	42828-11 8/14/2001 42828-11	42828-12 8/14/2001 42828-12
Dioxins/Furans (ug/Kg)											
HCX	12	53	0.08581	3.18852	0.04275	0.36579	0.14281	0.09499 UJ	0.0941 UJ	0.09085 UJ	0.22818 UJ
2,3,7,8-TCDD	43	53	0.00099	0.00914	0.00301	1.25424	0.27914	0.00659 J	0.00259 UJ	0.00924 J	0.00914 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)	43	43			0.00301	1.25	0.344	0.00659		0.00924	
PCB Congeners (ug/Kg)											
3,3',4,4'-Tetrachlorobiphenyl (77)	36	39	0.01316	0.02542	0.16095	2.86954	0.87117				
3,4,4',5-Tetrachlorobiphenyl (81)	0	37	0.0013	1.25755			0.15461				
2,3,3',4,4'-Pentachlorobiphenyl (105)	0	39	0.10898	0.6231			0.11322				
2,3,3',4,5-Pentachlorobiphenyl (106)	0	39	0.0074	0.91752			0.01925				
2,3,3',4',5-Pentachlorobiphenyl (107)	1	1			0.02391	0.02391	0.02391				
2,3,4,4',5-Pentachlorobiphenyl (114)	0	39	0.00702	0.03315			0.00724				
2,3',4,4',5-Pentachlorobiphenyl (118)	0	39	0.33203	1.79585			0.36034				
2,3',4,4',5'-Pentachlorobiphenyl (123)	36	39	0.00322	0.01401	0.1831	3.32061	0.96121				
3,3',4,4',5-Pentachlorobiphenyl (126)	0	39	0.0258	0.09216			0.02071				
2,3,3',4,4',5-Hexachlorobiphenyl (156)	0	39	0.01905	0.05847			0.01701				
2,3,3',4,4',5'-Hexachlorobiphenyl (157)	0	38	0.00079	1.26711			0.07340				
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	0	38	0.0011	0.68672			0.07095				
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	36	36			0.0183	0.332	0.10421				
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0	0									
Toxicity Equivalency (PCB)	0	0									
Other (%)											
Lipid_percent	41	41			1.22	4.56	2.71				

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* **106**(12):775-792.

Catfish Eggs and Catfish Fry Tissue
42828-CONC-1A through 42828-CONC-14C are egg samples
42828-1 through 42828-14 are fry tissue samples

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Table A-37

Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	42828-13 8/14/2001 42828-13	42828-14 8/14/2001 42828-14	42828-2 8/14/2001 42828-2	42828-3 8/14/2001 42828-3	42828-4 8/14/2001 42828-4	42828-5 8/14/2001 42828-5	42828-6 8/14/2001 42828-6	42828-7 8/14/2001 42828-7	42828-8 8/14/2001 42828-8
Dioxins/Furans (ug/Kg)									
HCX	0.09133 UJ	0.08581 UJ	0.09667 UJ	0.09021 UJ	0.09252 UJ	0.0914 UJ	0.09451 UJ	0.09653 UJ	0.09543 UJ
2,3,7,8-TCDD	0.00329 UJ	0.00422 UJ	0.00644 J	0.00099 UJ	0.00165 UJ	0.00376 UJ	0.00585 J	0.00171 UJ	0.00314 UJ
Toxicity Equivalency (Dioxins, Furans, HCX)			0.00644				0.00585		
PCB Congeners (ug/Kg)									
3,3',4,4'-Tetrachlorobiphenyl (77)									
3,4,4',5-Tetrachlorobiphenyl (81)									
2,3,3',4,4'-Pentachlorobiphenyl (105)									
2,3,3',4,5-Pentachlorobiphenyl (106)									
2,3,3',4',5-Pentachlorobiphenyl (107)									
2,3,4,4',5-Pentachlorobiphenyl (114)									
2,3',4,4',5-Pentachlorobiphenyl (118)									
2,3',4,4',5'-Pentachlorobiphenyl (123)									
3,3',4,4',5-Pentachlorobiphenyl (126)									
2,3,3',4,4',5-Hexachlorobiphenyl (156)									
2,3,3',4,4',5'-Hexachlorobiphenyl (157)									
2,3',4,4',5,5'-Hexachlorobiphenyl (167)									
3,3',4,4',5,5'-Hexachlorobiphenyl (169)									
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)									
Toxicity Equivalency (PCB)									
Other (%)									
Lipid_percent									

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Catfish Eggs and Catfish Fry Tissue
42828-CONC-1A through 42828-CONC-14C are egg samples
42828-1 through 42828-14 are fry tissue samples

US EPA ARCHIVE DOCUMENT

Table A-37

Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	42828-9 8/14/2001 42828-9	42828-CONC-10A 7/14/2001	42828-CONC-10B 7/14/2001	42828-CONC-10C 7/14/2001	42828-CONC-11A 7/17/2001	42828-CONC-11B 7/17/2001	42828-CONC-11C 7/17/2001
Dioxins/Furans (ug/Kg)							
HCX	0.09446 UJ	0.1835 UJ	0.26038 UJ	0.23261 UJ	0.1888 UJ	0.30915 J	0.16894 J
2,3,7,8-TCDD	0.01067 J	0.09994	0.17508	0.10351	0.7439	0.809	0.57369
Toxicity Equivalency (Dioxins, Furans, HCX)	0.0107	0.0999	0.175	0.104	0.744	0.809	0.574
PCB Congeners (ug/Kg)							
3,3',4,4'-Tetrachlorobiphenyl (77)		0.21715 J	0.44474 J	0.25035	1.60219 J	1.68925 J	1.41373 J
3,4,4',5-Tetrachlorobiphenyl (81)		0.0018 U	0.65096 U	0.00659 U	0.63251 UJ	0.64045 UJ	0.68672 UJ
2,3,3',4,4'-Pentachlorobiphenyl (105)		0.10994 U	0.16834 U	0.13121 U	0.31482 UJ	0.24383 UJ	0.24975 UJ
2,3,3',4,5-Pentachlorobiphenyl (106)		0.91752 U	0.01215 U	0.01248 U	0.01483 UJ	0.04398 UJ	0.01539 UJ
2,3,3',4',5-Pentachlorobiphenyl (107)							
2,3,4,4',5-Pentachlorobiphenyl (114)		0.00852 U	0.01632 U	0.01121 U	0.01797 UJ	0.01429 UJ	0.01714 UJ
2,3',4,4',5-Pentachlorobiphenyl (118)		0.33203 UJ	0.53849 UJ	0.3815 UJ	1.05994 UJ	0.81889 UJ	0.90825 UJ
2,3',4,4',5'-Pentachlorobiphenyl (123)							
3,3',4,4',5-Pentachlorobiphenyl (126)		0.24473 J	0.47107 J	0.26761	2.00043 J	2.1187 J	1.48735 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)		0.0258 U	0.04656 U	0.03 U	0.05214 UJ	0.03626 UJ	0.03466 UJ
2,3,3',4,4',5'-Hexachlorobiphenyl (157)							
2,3',4,4',5,5'-Hexachlorobiphenyl (167)		0.02146 U	0.04263 U	0.01905 U	0.04352 UJ	0.0362 UJ	0.0345 UJ
3,3',4,4',5,5'-Hexachlorobiphenyl (169)		0.00307 U	0.65096 U	0.00416 U	0.00496 UJ	0.64045 UJ	0.00232 UJ
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)		0.00123 U	0.00341 U	0.0029 U	0.002 UJ	0.00127 UJ	0.68672 UJ
Toxicity Equivalency (PCB)		0.0245	0.0472	0.0268	0.2	0.212	0.149
Other (%)							
Lipid_percent		1.42	3.34	1.22	2.76	3.54	3.73

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-*Hexachloroxanthene*
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Catfish Eggs and Catfish Fry Tissue
42828-CONC-1A through 42828-CONC-14C are egg samples
42828-1 through 42828-14 are fry tissue samples

US EPA ARCHIVE DOCUMENT

Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	42828-CONC-12A 7/14/2001	42828-CONC-12B 7/14/2001 DUPLICATE	42828-CONC-12B 7/14/2001	42828-CONC-12C 7/17/2001	42828-CONC-14A 7/14/2001	42828-CONC-14B 7/14/2001	42828-CONC-14C 7/14/2001
Dioxins/Furans (ug/Kg)							
HCX	0.24088 UJ		3.18852 UJ	0.2539 UJ	0.23579 UJ	0.18218 UJ	0.23119 UJ
2,3,7,8-TCDD	1.13291		0.61132	0.95954	0.31188	0.13733	0.18889
Toxicity Equivalency (Dioxins, Furans, HCX)	1.13		0.611	0.96	0.312	0.137	0.189
PCB Congeners (ug/Kg)							
3,3',4,4'-Tetrachlorobiphenyl (77)	2.609		1.29359 J	2.42429 J	0.78644	0.3557 J	0.42057 J
3,4,4',5-Tetrachlorobiphenyl (81)	0.00224 UJ		0.00475 UJ	0.63476 UJ	0.58948 UJ	0.0013 UJ	0.00283 UJ
2,3,3',4,4'-Pentachlorobiphenyl (105)	0.24072 UJ		0.41368 UJ	0.33051 UJ	0.15026 UJ	0.14294 UJ	0.16296 UJ
2,3,3',4,4,5-Pentachlorobiphenyl (106)	0.02391 UJ		0.0298 UJ	0.0129 UJ	0.00851 UJ	0.00865 UJ	0.01166 UJ
2,3,3',4',5-Pentachlorobiphenyl (107)	0.02391						
2,3,4,4',5-Pentachlorobiphenyl (114)	0.01396 UJ		0.03181 UJ	0.02409 UJ	0.00936 UJ	0.00875 UJ	0.00929 UJ
2,3',4,4',5-Pentachlorobiphenyl (118)	0.72622 UJ		1.19678 UJ	1.11725 UJ	0.48039 UJ	0.48096 UJ	0.49106 UJ
2,3',4,4',5'-Pentachlorobiphenyl (123)							
3,3',4,4',5-Pentachlorobiphenyl (126)	2.78278		1.42016 J	2.47643 J	0.75411 J	0.35561 J	0.42421 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)	0.04226 UJ		0.09216 UJ	0.04926 UJ	0.03296 UJ	0.04024 UJ	0.033 UJ
2,3,3',4,4',5'-Hexachlorobiphenyl (157)							
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	0.03711 UJ		0.03645 UJ	0.03798 UJ	0.03657 UJ	0.02754 UJ	0.03323 UJ
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.60219 UJ		0.00119 UJ	0.00413 UJ	0.00256 UJ	0.45546 UJ	0.00234 UJ
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.0028 UJ		0.00691 UJ	0.00267 UJ	0.58948 UJ	0.0013 UJ	0.00158 UJ
Toxicity Equivalency (PCB)	0.279		0.142	0.248	0.0755	0.0356	0.0425
Other (%)							
Lipid_percent	3.15	1.66	1.44	3.26	3.07	1.28	2.43

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

Van den Berg, M., et al., 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. *Environ. Health Persp.* 106(12):775-792.

Catfish Eggs and Catfish Fry Tissue
42828-CONC-1A through 42828-CONC-14C are egg samples
42828-1 through 42828-14 are fry tissue samples

Table A-37

Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	42828-CONC-1A 7/17/2001	42828-CONC-1B 7/17/2001	42828-CONC-1C 7/17/2001	42828-CONC-2A 7/17/2001	42828-CONC-2B 7/17/2001	42828-CONC-2C 7/17/2001 DUPLICATE	42828-CONC-2C 7/17/2001	42828-CONC-3A 7/14/2001
Dioxins/Furans (ug/Kg)								
HCX	0.08613 J	0.31203 J	0.25663 J	0.20713 J	0.17121 J		0.36579 J	0.18961 UJ
2,3,7,8-TCDD	0.34679	0.36972	0.49673	0.73814	0.59984		1.25424	0.00157 U
Toxicity Equivalency (Dioxins, Furans, HCX)	0.347	0.37	0.497	0.738	0.6		1.25	
PCB Congeners (ug/Kg)								
3,3',4,4'-Tetrachlorobiphenyl (77)	0.96882 J	1.07 J	1.32282 J	1.63405 J	1.31624 J		2.86954 J	0.01316 U
3,4,4',5-Tetrachlorobiphenyl (81)	0.60718 UJ	1.16768 UJ	0.02294 UJ	0.48197 UJ	0.49227 UJ			0.0016 U
2,3,3',4,4'-Pentachlorobiphenyl (105)	0.25621 UJ	0.36376 UJ	0.46168 UJ	0.20846 UJ	0.19327 UJ		0.6231 UJ	0.14591 U
2,3,3',4,5-Pentachlorobiphenyl (106)	0.01327 UJ	0.02182 UJ	0.03326 UJ	0.01289 UJ	0.00849 UJ		0.03799 UJ	0.0074 U
2,3,3',4',5-Pentachlorobiphenyl (107)								
2,3,4,4',5-Pentachlorobiphenyl (114)	0.0156 UJ	0.02688 UJ	0.03008 UJ	0.01063 UJ	0.01091 UJ		0.03315 UJ	0.00702 U
2,3',4,4',5-Pentachlorobiphenyl (118)	0.84516 UJ	1.15341 UJ	1.50854 UJ	0.62147 UJ	0.6079 UJ		1.79585 UJ	0.4246 UJ
2,3',4,4',5'-Pentachlorobiphenyl (123)								
3,3',4,4',5-Pentachlorobiphenyl (126)	0.9041 J	0.92978 J	1.352 J	2.0113 J	1.52514 J		3.32061 J	0.00322 U
2,3,3',4,4',5-Hexachlorobiphenyl (156)	0.0447 UJ	0.0596 UJ	0.07698 UJ	0.03362 UJ	0.03066 UJ		0.08752 UJ	0.02716 U
2,3,3',4,4',5'-Hexachlorobiphenyl (157)								
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	0.04027 UJ	0.04465 UJ	0.05847 UJ	0.02785 UJ	0.02342 UJ		0.05475 UJ	0.02307 U
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.002 UJ	0.00375 UJ	0.00432 UJ	0.00251 UJ	0.00222 UJ		1.26711 UJ	0.00155 U
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.60716 UJ	0.0044 UJ	0.00525 UJ	0.48197 UJ	0.49227 UJ		0.00345 UJ	0.00159 U
Toxicity Equivalency (PCB)	0.0905	0.0931	0.135	0.201	0.153		0.332	
Other (%)								
Lipid_percent	3.37	3.67	3.48	1.99	1.92	3.68	3.72	2.07

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
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Catfish Eggs and Catfish Fry Tissue
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US EPA ARCHIVE DOCUMENT

Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	42828-CONC-3B 7/14/2001	42828-CONC-3C 7/14/2001	42828-CONC-4A 7/17/2001	42828-CONC-4B 7/17/2001	42828-CONC-4C 7/17/2001	42828-CONC-5A 7/17/2001	42828-CONC-5B 7/17/2001	42828-CONC-5C 7/17/2001
Dioxins/Furans (ug/Kg)								
HCX	0.50302 UJ	0.24628 UJ	0.04275 J	0.16408 UJ	0.19122 UJ	0.12435 J	0.10208 J	0.10652 J
2,3,7,8-TCDD	0.00417 J	0.00301 J	0.09646	0.06651 J	0.08784	0.18979	0.32701	0.24972
Toxicity Equivalency (Dioxins, Furans, HCX)	0.00417	0.00301	0.0965	0.0665	0.0878	0.19	0.327	0.25
PCB Congeners (ug/Kg)								
3,3',4,4'-Tetrachlorobiphenyl (77)	0.02542 UJ	0.01476 UJ	0.25964 J	0.16095 J	0.22353 J	0.4035 J	0.80716 J	0.61151 J
3,4,4',5-Tetrachlorobiphenyl (81)	1.25755 UJ	0.00199 UJ	0.00167 UJ	0.41021 UJ	0.00212 UJ	0.60445 UJ	0.01502 UJ	0.54903 UJ
2,3,3',4,4'-Pentachlorobiphenyl (105)	0.27456 UJ	0.19208 UJ	0.23245 UJ	0.19235 UJ	0.19967 UJ	0.25193 UJ	0.24526 UJ	0.18972 UJ
2,3,3',4,5-Pentachlorobiphenyl (106)	0.01693 UJ	0.01108 UJ	0.01371 UJ	0.01005 UJ	0.01427 UJ	0.01105 UJ	0.01608 UJ	0.01162 UJ
2,3,3',4',5-Pentachlorobiphenyl (107)								
2,3,4,4',5-Pentachlorobiphenyl (114)	0.01524 UJ	0.00956 UJ	0.01408 UJ	0.01106 UJ	0.01266 UJ	0.01416 UJ	0.01677 UJ	0.01194 UJ
2,3',4,4',5-Pentachlorobiphenyl (118)	0.78911 UJ	0.63488 UJ	0.81054 UJ	0.62978 UJ	0.70427 UJ	0.77252 UJ	0.90623 UJ	0.69665 UJ
2,3',4,4',5'-Pentachlorobiphenyl (123)								
3,3',4,4',5-Pentachlorobiphenyl (126)	0.01401 UJ	0.00655 UJ	0.25738 J	0.1831 J	0.21821 J	0.5184 J	0.92742 J	0.72215 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)	0.05348 UJ	0.0531 UJ	0.0349 UJ	0.02936 UJ	0.02884 UJ	0.03322 UJ	0.03706 UJ	0.03026 UJ
2,3,3',4,4',5'-Hexachlorobiphenyl (157)								
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	0.03985 UJ	0.03842 UJ	0.03356 UJ	0.02468 UJ	0.02952 UJ	0.03211 UJ	0.03837 UJ	0.03182 UJ
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.00638 UJ	0.00248 UJ	0.00159 UJ	0.00109 UJ	0.00241 UJ	0.60445 UJ	0.6491 UJ	0.0014 UJ
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.0081 UJ	0.00255 UJ	0.00175 UJ	0.00134 UJ	0.00209 UJ	0.0011 UJ	0.6491 UJ	0.00122 UJ
Toxicity Equivalency (PCB)			0.0258	0.0183	0.0218	0.0519	0.0928	0.0723
Other (%)								
Lipid_percent	2.54	3.58	2.9	1.4	2.23	2.99	3.62	2.52

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
Toxicity Equivalency (PCB) based on application of mammalian toxicity equivalency factors to measured concentrations (Van den Berg, et al., 1998) of dioxin-like PCB congeners. Dioxin-like PCB congeners include PCBs 81, 77, 126, 169, 105, 114, 118, 123, 156, 157, 167, and 189.

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Catfish Eggs and Catfish Fry Tissue
42828-CONC-1A through 42828-CONC-14C are egg samples
42828-1 through 42828-14 are fry tissue samples

US EPA ARCHIVE DOCUMENT

Table A-37

Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	42828-CONC-6A 7/14/2001	42828-CONC-6B 7/14/2001	42828-CONC-6C 7/14/2001	42828-CONC-7A 7/14/2001	42828-CONC-7B 7/14/2001	42828-CONC-7C 7/14/2001	42828-CONC-8A 7/17/2001	42828-CONC-8B 7/17/2001
Dioxins/Furans (ug/Kg)								
HCX	0.26777 UJ	0.25747 UJ	0.17484 UJ	0.22617 UJ	0.1888 UJ	0.24873 UJ	0.20022 UJ	0.24701 UJ
2,3,7,8-TCDD	0.48232	0.4529	0.34377	0.09147	0.08468	0.12346	0.09524	0.16897
Toxicity Equivalency (Dioxins, Furans, HCX)	0.482	0.453	0.344	0.0915	0.0847	0.123	0.0952	0.169
PCB Congeners (ug/Kg)								
3,3',4,4'-Tetrachlorobiphenyl (77)	0.99888	0.95591	0.71895	0.24083 J	0.21227 J	0.30242 J	0.24321 J	0.36272 J
3,4,4',5-Tetrachlorobiphenyl (81)	0.00286 U	0.00288 U	0.4371 U	0.00711 U	0.47201 U	0.00425 U	R	0.02191 UJ
2,3,3',4,4'-Pentachlorobiphenyl (105)	0.18263 U	0.2224 U	0.12805 U	0.17215 U	0.10898 U	0.17582 U	0.18287 UJ	0.25034 UJ
2,3,3',4,5-Pentachlorobiphenyl (106)	0.00994 U	0.01081 U	0.00761 U	0.01055 U	0.00908 U	0.0361 U	0.0132 UJ	0.01257 UJ
2,3,3',4',5-Pentachlorobiphenyl (107)								
2,3,4,4',5-Pentachlorobiphenyl (114)	0.0124 U	0.01008 U	0.00744 U	0.01321 U	0.00783 U	0.01194 U	0.01481 UJ	0.02463 UJ
2,3',4,4',5-Pentachlorobiphenyl (118)	0.56887 UJ	0.55529 UJ	0.38932 UJ	0.49312 UJ	0.34672 UJ	0.5798 UJ	0.62353 UJ	0.90166 UJ
2,3',4,4',5'-Pentachlorobiphenyl (123)								
3,3',4,4',5-Pentachlorobiphenyl (126)	1.18438 J	1.06858 J	0.87451	0.2533 J	0.21102 J	0.31144 J	0.22982 J	0.44537 J
2,3,3',4,4',5-Hexachlorobiphenyl (156)	0.03656 U	0.0553 U	0.03032 U	0.0416 U	0.0258 U	0.03954 U	0.02834 UJ	0.03282 UJ
2,3,3',4,4',5'-Hexachlorobiphenyl (157)								
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	0.03788 U	0.04045 U	0.02263 U	0.03337 U	0.0269 U	0.03694 U	0.03035 UJ	0.03445 UJ
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.00278 U	0.00559 U	0.00309 U	0.00339 U	0.00447 U	0.00704 U	R	0.61751 UJ
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.00248 U	0.00414 U	0.0023 U	0.56542 U	0.0022 U	0.62181 U	R	0.61751 UJ
Toxicity Equivalency (PCB)	0.119	0.107	0.0875	0.0254	0.0211	0.0312	0.023	0.0446
Other (%)								
Lipid_percent	3.38	4.56	1.43	2.18	1.99	2.84	2.25	3.54

NOTES:
SQL - Sample Quantitation Limit
HCX - 1,2,4,5,7,8-Hexachloroxanthene
Toxicity Equivalency (Dioxins, Furans, HCX) based on application of mammalian toxicity equivalency factors (Van den Berg, et al., 1998) to measured concentrations of dioxins, furans, and by application of USEPA HCX toxicity equivalency factor (0.0002) based on personal communication from USEPA, Chau Vu, May 22, 2002.
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Summary Statistics and Analytical Results for Catfish Eggs and Catfish Fry Tissue- Early Lifestage Testing

Data Evaluation Report
Centredale Manor Restoration Project Superfund Site
North Providence, RI

PARAMETER	42828-CONC-8C 7/17/2001	42828-CONC-9A 7/14/2001	42828-CONC-9B 7/14/2001	42828-CONC-9C 7/14/2001
Dioxins/Furans (ug/Kg)				
HCX	0.19598 UJ	0.22617 UJ	0.21193 UJ	0.2586 UJ
2,3,7,8-TCDD	0.17467	0.53543	0.61965	0.88999
Toxicity Equivalency (Dioxins, Furans, HCX)	0.175	0.535	0.62	0.89
PCB Congeners (ug/Kg)				
3,3',4,4'-Tetrachlorobiphenyl (77)	0.43051 J	1.338	1.17707	1.81344
3,4,4',5-Tetrachlorobiphenyl (81)	0.48996 UJ	0.00181 U	0.52983 U	0.00168 U
2,3,3',4,4'-Pentachlorobiphenyl (105)	0.16801 UJ	0.17902 U	0.14901 U	0.22261 U
2,3,3',4,5-Pentachlorobiphenyl (106)	0.0103 UJ	0.00937 U	0.00924 U	0.011 U
2,3,3',4',5-Pentachlorobiphenyl (107)				
2,3,4,4',5-Pentachlorobiphenyl (114)	0.01102 UJ	0.00733 U	0.008 U	0.01372 U
2,3',4,4',5-Pentachlorobiphenyl (118)	0.58497 UJ	0.53962 UJ	0.4476 UJ	0.64367 UJ
2,3',4,4',5'-Pentachlorobiphenyl (123)				
3,3',4,4',5-Pentachlorobiphenyl (126)	0.42991 J	1.08491 J	1.46003	2.24944
2,3,3',4,4',5-Hexachlorobiphenyl (156)	0.028 UJ	0.03578 U	0.03982 U	0.04366 U
2,3,3',4,4',5'-Hexachlorobiphenyl (157)				
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	0.02547 UJ	0.03112 U	0.02687 U	0.03322 U
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.00079 UJ	0.00249 U	0.00139 U	0.0036 U
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.00121 UJ	0.00177 U	0.00635 U	0.00132 U
Toxicity Equivalency (PCB)	0.043	0.109	0.146	0.225
Other (%)				
Lipid_percent	2.72	2.67	2.11	3.41

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