UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

March 29, 2004

R4-SESD-EAB

MEMORANDUM

SUBJECT: Corrected Version of Appendix B - Coosa River Water Sampling Investigation Report

FROM: Laura McGrath
Science & Ecosystem Support Division
Ecological Assessment Branch
Ecological Evaluation Section

THRU: Bill Cosgrove, Chief
Ecological Evaluation Section

TO: Jim Kutzman
Waste Management Division

Attached is a corrected version of Appendix B from the Coosa River Water Sampling Investigation Report that was issued in March 2004 (Proj. Nos. 03-1068 and 04-0048). This should be substituted for the version currently in the report. Please note, the corrections do not affect the values in the tables or the conclusions in the report. If you are aware of other parties who may have a copy of the report, please forward this corrected version to them.

Attachment

cc: Carol Monell, South Site Managment Branch, Waste Management Division
Wes Hardegree, South Site Management Branch, Waste Management Division
Kay Wischkaemper, Office of Technical Services, Waste Management Division
Jim Webster, Emergency Response and Removal Branch, Waste Management Division
Gail Mitchell, Standards, Monitoring, and TMDL Section, Water Management Division
Bill Melville, West Standards, Monitoring and TMDL Section, Water Management Division
Wilda Cobb, Environmental Accountability Division
Nadine Orell, Environmental Accountability Division

10411137

V.12

Appendix B (Revised)
PCB Congener, Homologue, and Aroclor Data
Coosa River Water Sampling Investigation
September/October 2003
Rome, Georgia

	HLC1-D pg/l	HLC1-P pg/l	LDC1-D pg/l	LDC1-P pg/l	LDC2-D pg/l	LDC2-P pg/l	CR-D pg/l	CR-P pg/l	ER-D pg/l	ER-P pg/l	OR-D pg/l	OR-P pg/l
Congeners												
PCB-1	110	0.40	400	1.5	940	1.5	2.3	0.74	1.1 J	0.80 J	2.5	0.52
PCB-2	6.0	0.12	24	0.23	9.3	0.12	2.0	1.1	1.4	1.2	1.5	0.65
PCB-3	130	1.7 U	120	1.0	140	1.3	7.0	3.4	5.2	3.5	4.8	1.9
PCB-4	2900	8.9	11000	137	13000	42	5.8	0.94	2.2	0.39	3.8	0.89
PCB-5	2.5	0.026 U	6.7	0.060	5.1	0.026	0.081	0.11	0.092	0.22	0.068	0.023
PCB-6	160	1.4	300	4.3	400	2.3	1.0	0.48	0.47	0.38	0.68	0.29
PCB-7	34	0.28	61	0.82	83	0.47	0.73	0.078	0.12	0.086	0.30	0.058
PCB-8	610	4.9	1600	15	1300	7.8	3.4	1.5	1.9	1.4	2.8	1.2
PCB-9	7.0	0.093	67	0.80	83	0.42	0.26	0.23	0.21	0.47	0.22	0.084
PCB-10	820	1.9	340	2.7	610	1.6	0.30	0.050	0.14	0.027	0.30	0.078
PCB-11	90	1.9	14	0.90	9.0	0.31	1.1	0.86	0.94	0.75	0.73	0.56
PCB-12/13	340	7.4	77	3.2	82	1.9	0.41	0.74	0.24	1.1	0.27	0.35
PCB-14	0.47 U	0.025 U	0.71 U	0.016 U	0.98 U	0.015 U	0.0090 U	0.037	0.022	0.092	0.013	0.013
PCB-15	2300	97	670	30	870	19	3.3	4.1	1.5	1.9	4.4	6.1
PCB-16	140	1.8	290	6.0	200	1.3	1.2	0.47	1.1	0.57	1.1	0.32
PCB-17	2400	33	4200	150	3300	25	2.2	0.77	1.3	0.42	1.2	0.39
PCB-18/30	570	7.0	2000	64	1200	15	3	1.0	2.6	0.95	2.4	0.64
PCB-19	13000	160	25000	430	18000	220	3.4	0.61	1.3	0.22	0.59	0.086
PCB-20/28	3400	170	2800	210	1500	38	5.0	3.4	4.0	2.5	2.9	1.9
PCB-21/33	150	4.6	570	57	390	10	1.3	1.2	1.1	1.4	0.95	0.64
PCB-22	900	22	330	15	210	4.1	1.4	1.0	1.2	0.92	0.91	0.51
PCB-23	0.69 U	0.87	1.1	0.058	0.45 U	0.21	0.0076	0.0090 U	0.0083	0.020	0.00535	0.0028 J
PCB-24	11	0.15	9.4	0.28	0.037 U	0.072	0.075	0.027	0.081	0.032	0.068	0.021
PCB-25	420	11	410	13	410	5.0	0.56	0.45	0.25	0.20	0.20	0.13
PCB-26/29	580	13	380	18	370	6.5	1.2	0.79	0.59	0.48	0.57	0.33
PCB-27	1100	13	750	16	980	6.5	0.53	0.17	0.39	0.098	0.26	0.073
PCB-31	1000	28	1700	110	910	17	4.2	2.9	3.2	2.5	2.5	1.4
PCB-32	4600	74	3300	110	2500	21	1.7	0.52	0.83	0.28	0.78	0.24
PCB-34	37	0.021 U	18	0.86	14	0.21	0.051	0.033	0.046	0.050	0.021	0.0097
PCB-35	26	1.5	7.9	0.74	3.9	0.24	0.064	0.096	0.055	0.13	0.041	0.052
PCB-36	2.5	0.13	0.51 U	0.097	0.42 U	0.025	0.010	0.010	0.012	0.016	0.0053	0.0025 J
PCB-37	340	23	240	19	170	8.4	0.87	1.6	0.66	1.4	0.59	0.93
PCB-38	1.3	0.10	3.9	0.36	4.6	0.085	0.013 U	0.018	0.0085 U	0.032	0.0081 U	0.016
PCB-39	19	0.81	6.3	0.52	5.0	0.13	0.050	0.039	0.060	0.053	0.032	0.011
PCB-40/41/71	2100	92	2400	250	1600	44	1.8	1.4	1.2	0.39	0.96	0.65

Congeners

PCB-42	540		19		390		28		340		6.8		0.92	0.67	0.71	0.47	0.51	0.35
PCB-43	110		3.1		93		5.8		77		1.3		0.14	0.078	0.12	0.068	0.078	0.039
PCB-44/47/65	4300		220		15000		1900	J	12000		500	J	6.6	4.4	4.2	2.3	3.1	1.6
PCB-45/51	2500		78		12000		950	J	9600		250	J	2.3	1.3	0.86	0.31	0.55	0.19
PCB-46	270		4.9		290		12		260		2.9		0.26	0.12	0.20	0.089	0.16	0.060
PCB-48	210		6.7		110		7.9		110		2.0		0.46	0.35	0.44	0.28	0.33	0.21
PCB-49/69	2100		69	J	6800		750		5900		210	J	3.9	2.7	2.7	1.6	1.9	1.1
PCB-50/53	1500		28		9000		540		7700		170		1.8	0.90	0.83	0.27	0.50	0.16
PCB-52	2200		60	J	3800		330		3500		120		7.0	3.8	5.6	2.9	5.7	2.7
PCB-54	720		11		5000		260		4600		44		0.76	0.25	0.15	0.028	0.053	0.0072
PCB-55	0.25	U	0.71		0.60	U	0.82		0.19	U	0.31		0.034	U	0.036	0.020	0.027	0.023	0.028
PCB-56	620		36		270		28		230		8.9		0.87	1.2	0.69	1.1	0.57	0.71
PCB-57	9.7		0.56		7.8		0.98		7.2		0.27		0.022	0.021	0.015	0.016	U	0.0089	0.0068	U
PCB-58	11		0.66		5.1		7.4		4.8		2.2		0.0072	U	0.0085	U	0.014	0.023	0.0023	U	0.0065	U
PCB-59/62/75	170		6.2		270		23		310		6.3		0.38	0.27	0.33	0.20	0.21	0.14
PCB-60	120		8.1		72		7.1		75		3.5		0.44	0.52	0.37	0.45	0.29	0.38
PCB-61/70/74/76	2100		150		1600		240		1100		74		4.7	4.8	4.2	4.2	3.4	3.7
PCB-63	88		4.8		68		9.0		62		2.0		0.17	0.13	0.14	0.12	0.080	0.075
PCB-64	560		21		420		26		420		8.8		1.8	1.2	1.7	0.98	1.1	0.67
PCB-66	1900		160		1400		220		990		35		2.7	3.1	2.3	2.3	1.6	2.1
PCB-67	40		2.4		50		1.9		68		0.58		0.081	0.089	0.062	0.073	0.044	0.051
PCB-68	52		2.9		100		15		100		3.1		0.12	0.074	0.098	0.054	0.066	0.028
PCB-72	48		2.4		57		6.4		55		1.6		0.098	0.080	0.075	0.078	0.041	0.036
PCB-73	86		3.8		460		35		540		9.4		0.12	0.087	0.039	0.00043	U	0.019	0.00039	U
PCB-77	150		18		55		8.4		38		3.3		0.17	0.51	0.15	0.53	0.11	0.30
PCB-78	0.82		0.072		1.5		0.28		2.1		0.056		0.0078	U	0.0092	U	0.0025	U	0.0039	U	0.0025	U	0.0071	U
PCB-79	16		1.5		20		2.7		19		0.73		0.050	0.079	0.054	0.089	0.052	0.062
PCB-80	0.23	U	0.027	U	1.2		0.14		1.1		0.053		0.0069	U	0.0082	U	0.0023	U	0.0034	U	0.0022	U	0.0064	U
PCB-81	2.7		0.30		1.3		0.16		1.1		0.081		0.0071	0.015	0.0067	U	0.017	0.0050	U	0.010
PCB-82	54		4.5		66		6.6		46		2.4		0.46	0.57	0.30	0.44	0.48	0.69
PCB-83/99	620		67		3200		670		3600		150		4.1	4.9	3.6	4.6	3.1	4.1
PCB-84	150		8.0		300		25		190		6.5		1.3	1.1	0.95	0.81	1.4	1.2
PCB-85/116/117	120		11		220		25		179		13		1.0	1.3	0.85	1.2	0.89	1.4
PCB-86/87/97/108/119/125	460		36		1500		280		880		74		3.4	3.8	2.7	4.4	3.1	4.0
PCB-88/91	230		16		2200		370		2500		82		1.1	1.2	0.71	0.62	0.738	0.76

Congeners

PCB-89	9.7		0.61		9.1		0.86		6.5		0.27		0.035		0.037		0.022		0.026	U	0.036		0.041	
PCB-90/101/113	1100		96		5600		1100	J	6400		270	J	6.1		7.0		5.0		6.4		4.9		5.8	
PCB-92	240		17		1600		300		850		38		1.4		1.5		1.0		1.1		0.98		0.98	
PCB-93/95/98/100/102	220		18		6700		990	J	8400		140		5.6		4.8		4.2		3.3		4.9		4.0	
PCB-94	85		4.6		760		140		500		16		0.21		0.20		0.054		0.036		0.039		0.024	
PCB-96	30		1.4		260		24		170		4.7		0.081		0.071		0.035		0.027		0.035		0.024	
PCB-103	66		4.0		710		150		640		26		0.24		0.30		0.087		0.069		0.068		0.046	
PCB-104	31		2.0		274		37		270		11		0.093		0.091		0.014		0.0058		0.017		0.0086	U
PCB-105	160		26		203		52		140		16		1.6		3.5		1.3		3.3		1.3		3.6	
PCB-106	0.13	U	0.011	U	0.32	U	0.037	U	0.13	U	0.013	U	0.013		0.0098	U	0.0016	U	0.017	U	0.0057	U	0.0076	U
PCB-107/124	22		2.7		26		4.5		18		1.4		0.19		0.29		0.12		0.27		0.13		0.28	
PCB-109	60		7.7		130		31		85		6.9		0.46		0.70		0.36		0.71		0.29		0.63	
PCB-110/115	700		71		2000		310		2200		90		6.2		7.6		5.1		6.5		5.6		8.0	
PCB-111	2.6		0.25		17		4.2		13		0.91		0.011		0.016		0.0073		0.016	U	0.0034	U	0.0038	J
PCB-112	0.30	U	0.0092	U	1.5	U	0.024	U	0.21	U	0.044	U	0.0040	U	0.0032	U	0.0015	U	0.0020	U	0.0024	U	0.0011	U
PCB-113	8.5		1.3		11		4.6		7.8		1.4		0.095		0.18		0.081		0.20		0.058		0.13	
PCB-118	490		66		790		200		540		42		4.8		8.4		4.3		8.2		3.4		7.8	
PCB-120	7.2		0.82		41		11		31		2.4		0.046	U	0.068		0.034		0.066		0.020		0.029	
PCB-121	4.4		0.31		48		8.6		54		2.8		0.038		0.035		0.014		0.0095		0.034		0.018	
PCB-122	8.1		1.0		7.9		1.2		5.3		0.44		0.052		0.095		0.031		0.080	U	0.039		0.092	
PCB-123	8.4		1.6		10		1.9		7.2		0.66		0.087		0.17		0.070		0.15		0.085		0.17	
PCB-126	4.5		0.90		2.7		0.61		1.5		0.19		0.011	U	0.045		0.011		0.050		0.010		0.039	
PCB-127	0.73		0.16		1.7		0.48		1.2		0.11		0.0083	U	0.010	U	0.0016	U	0.017	U	0.0057	U	0.017	U
PCB-128/166	62		21		140		69		90		40		0.75		2.2		0.55		1.9		0.60		2.2	
PCB-129/138/160/163	1100		190	J	4700		1800	J	2600		430	J	5.7		15		4.2		12		4.0		12	
PCB-130	47		8.1		140		49	J	97		11		0.35		0.76		0.22		0.60		0.25		0.71	
PCB-131	6.4		0.89		19		4.9		13		1.1		0.056		0.10		0.033		0.089		0.054		0.11	
PCB-132	250		37		1500		270	J	650		57	J	1.5		3.1		0.79		1.7		1.2		2.6	
PCB-133	28		4.2		210		77	J	150		18		0.19		0.41		0.080		0.19		0.076		0.15	
PCB-134/143	50		6.2		220		90	J	140		19		0.29		0.46		0.15		0.28		0.21		0.38	
PCB-135/151/154	610		9.4		4500		1600	J	2400		69		3.2		4.8		1.3		2.3		1.4		2.3	
PCB-136	150		18		1200		200	J	570		40		0.82		1.1		0.36		0.51		0.47		0.68	
PCB-137	16		3.3		40		16		26		4.0		0.20		0.52		0.16		0.46		0.18		0.57	
PCB-139/140	11		1.8		71		23		46		4.7		0.12		0.21		0.071		0.17		0.088		0.19	
PCB-141	200		35		800		440		505		100		0.94		2.3		0.50		1.4		0.55		1.5	

Congeners

PCB-142	0.55		0.061		0.50		0.11	U	0.46		0.031	U	0.012	U	0.013	U	0.0049	U	0.012		0.0033	U	0.0069	U
PCB-144	52		6.8		230		69	J	160		15		0.25		0.31		0.14		0.27		0.16		0.22	
PCB-145	0.55		0.074		1.1		0.25		0.74		0.061		0.0017	U	0.0028	U	0.0014	U	0.00012	U	7.0E-05	U	0.00037	U
PCB-146	220		35		1700		660		820		160		1.2		2.8		0.78		2.1		0.64		1.5	
PCB-147/149	1300		180	J	7700		2400	J	4100		570	J	5.1		9.9		2.8		5.4		3.2		6.3	
PCB-148	8.4		1.1		110		38		89		9.0		0.085		0.14		0.016		0.027	U	0.027		0.031	
PCB-150	6.0		0.88		78		26		61		5.8		0.043		0.068		0.0089		0.015		0.013		0.016	
PCB-152	7.5		0.84		57		15		39		2.7		0.021		0.028		0.0057		0.0083		0.0045	J	0.0062	
PCB-153/168	1300		270	J	6600		2700	J	3900		690	J	6.2		14		4.5		11		3.7		9.0	
PCB-155	1.3		0.24		15		6.2		17		2.2		0.085		0.10		0.0045		0.0081	U	0.15		0.23	
PCB-156/157	52		13		140		110		88		14		0.32		1.5		0.31		1.4		0.31		1.5	
PCB-158	74		14		240		83	J	170		20		0.45		1.3		0.35		1.1		0.37		1.1	
PCB-159	21		5.6		67		27		49		6.7		0.038		0.18		0.022		0.097		0.025		0.098	
PCB-161	0.12	U	0.024	U	0.37	U	0.079	U	0.17	U	0.021	U	0.0085	U	0.0094	U	0.0033	U	0.0053	U	0.0022	U	0.0049	U
PCB-162	3.2		0.75		4.5		2.3		2.8		0.57		0.024	U	0.085	U	0.021		0.13	U	0.016		0.048	
PCB-164	71		12		270		87	J	170		19		0.37		0.89		0.21		0.53		0.27		0.72	
PCB-165	2.7		0.33		25		8.4		22		2.5		0.019	U	0.050		0.0066		0.014	U	0.0033	J	0.0054	U
PCB-167	29		7.0		58		28		43		6.5		0.16		0.57		0.14		0.54		0.13		0.53	
PCB-169	0.38		0.11		0.27		0.14		0.17		0.034		0.0015	U	0.0070	U	0.0022	U	0.0080	U	0.0015	U	0.0072	
PCB-170	290		110		770		880		540		180		0.75		6.0		0.39		2.9		0.38		2.7	
PCB-171/173	97		26		300		270		220		41		0.30		1.4		0.14		0.87		0.14		0.72	
PCB-172	64		18		180		190		120		30		0.17		0.98		0.10		0.71		0.098		0.49	
PCB-174	380		91	J	1700		1200	J	920		160	J	1.2		5.2		0.45		2.5		0.53		2.5	
PCB-175	16		3.4		53		35		41		7.5		0.050		0.20		0.024		0.16		0.022		0.10	
PCB-176	47		10		200		120	J	150		24		0.15		0.58		0.060		0.25		0.063		0.23	
PCB-177	230		57	J	860		710		600		100	J	0.69		3.2		0.30		1.5		0.32		1.4	
PCB-178	99		21		440		360		350		93		0.38		1.5		0.16		0.78		0.17		0.60	
PCB-179	180		37		1100		630		620		94	J	0.60		2.4		0.23		0.97		0.29		0.95	
PCB-180/193	790		310	J	2800		2600	J	1700		620	J	2.2		13		1.2		7.8		1.1		6.1	
PCB-181	1.8		0.44		5.4		3.8		4.7		0.88		0.0061	U	0.037		0.0045		0.031		0.0053		0.023	
PCB-182	2.0		0.45		11		7.0		7.6		1.6		0.0097	U	0.036		0.0058	U	0.033		0.0039	U	0.022	
PCB-183/185	250		88		860		820		650		200		0.82		3.5		0.41		2.2		0.38		1.7	
PCB-184	0.23		0.059		1.2		0.86		1.1		0.22		0.051		0.11		0.0026	J	0.015		0.098		0.26	
PCB-186	0.17		0.035		0.26		0.10		0.21		0.025		0.0011	U	0.0028	U	0.00059	J	0.0073		0.00029	U	0.00077	U
PCB-187	540		180		2600		2000	J	1700		520	J	2.1		8.0		1.1		4.9		0.96		3.5	

Congeners

PCB-188	1.2	0.33	9.9	8.2	11	2.3	0.0058	0.022	0.0020 U	0.0095	0.0016 U	0.0049
PCB-189	11	4.2	21	23	15	5.0	0.026	0.19	0.017	0.13	0.016	0.10
PCB-190	70	20	190	210	150	29	0.18	1.3	0.11	0.64	0.089	0.56
PCB-191	13	3.4	37	29	27	6.1	0.034	0.21	0.020	0.12	0.018	0.094
PCB-192	0.027 U	0.0015 U	0.078 U	0.017 U	0.073 U	0.011 U	0.0011 U	0.0024 U	0.00048 U	0.0058 U	0.00033 U	0.0025 U
PCB-194	200	100	370	800	250	180	0.37	3.5	0.21	2.0	0.19	1.6
PCB-195	85	38	170	310	120	69	0.16	1.5	0.087	0.63	0.083	0.65
PCB-196	100	51	220	440	150	100	0.40	2.3	0.18	1.2	0.18	1.0
PCB-197/200	35	12	86	150	63	33	0.16	0.54	0.065	0.31	0.072	0.25
PCB-198/199	220	110	540	970 J	380	230 J	1.2	4.6	0.51	3.1	0.52	2.3
PCB-201	25	8.3	70	130	55	21	0.16	0.47	0.057	0.40	0.068	0.22
PCB-202	40	15	120	230	100	34	0.22	0.85	0.11	0.51	0.12	0.50
PCB-203	130	65	290	580	210	140	0.73	2.9	0.33	1.4	0.34	1.4
PCB-204	0.054 J	0.022	0.085 J	0.15	0.10	0.047	0.0015 U	0.0042 U	0.00014 J	0.010 U	0.0015 U	0.0073 U
[illegible]	10	5.0	20	33	13	7.8	0.024	0.19	0.012	0.11	0.011	0.085
PCB-206	42	26	86	230	53	62	0.36	2.1	0.18	1.5	0.19	1.8
PCB-207	6.7	3.8	14	30	8.4	7.0	0.089	0.24	0.044	0.37	0.054	0.19
PCB-208	10	5.6	22	44	12	10	0.21	0.70	0.11	0.74	0.13	0.75
PCB-209	2.3	1.9	2.3	5.0	0.93	1.4	0.12	1.5	0.087	1.6	0.087	1.9

Homologues

Total Monochloro Biphenyls	250	2.2	540	2.8	1100	2.8	11	5.2	7.7	5.6	8.7	3.1
Total Dichloro Biphenyls	7300	120	14000	190	16000	76	17	9.2	7.8	6.7	14	9.7
Total Trichloro Biphenyls	29000	560	42000	1200	30000	380	27	15	19	12	15	7.6
Total Tetrachloro Biphenyls	23000	990	60000	5700	50000	1500	38	28	27	19	21	15
Total Pentachloro Biphenyls	4900	470	27000	4700	28000	1000	40	48	31	42	32	44
Total Hexachloro Biphenyls	5700	880	31000	11000	17000	2300	28	63	18	44	18	45
Total Heptachloro Biphenyls	3100	980	12000	10000	7800	2100	9.7	48	4.7	26	4.7	22
Total Octachloro Biphenyls	840	400	1900	3600	1300	810	3.4	17	1.6	9.5	1.6	8.1
Total Nonachloro Biphenyls	59	36	120	300	74	78	0.65	3.0	0.30	2.7	0.40	2.7
Decachloro Biphenyl	2.3	1.9	2.3	5.0	0.93	1.4	0.21	1.5	0.087	1.6	0.087	1.9
Total PCBs	74000	4400	190000	37000	150000	8200	170	240	120	170	120	160

Aroclors																							
Aroclor 1016	130	U	0.064	U	1.8	U	0.087	U	2.5	U	0.052	U	0.023	U	0.0059	U	0.0074	U	0.0083	U	0.0064	U	0.0044	U
Aroclor 1221	0.62	U	0.033	U	0.93	U	0.021	U	1.3	U	0.020	U	0.012	U	0.021	U	0.0039	U	0.022	U	0.0034	U	0.013	U
Aroclor 1232	0.12	U	0.021	U	0.25	U	0.077	U	0.38	U	0.066	U	0.017	U	0.050	U	0.0053	U	0.052	U	0.0081	U	0.031	U
Aroclor 1242	15000		570		22000		1100		13000		210		47		26		35		22		32		15	
Aroclor 1248	23	U	0.17	U	98	U	0.53	U	84	U	0.25	U	0.040	U	0.051	U	0.014	U	0.021	U	0.014	U	0.039	U
Aroclor 1254	8700		820		38000		7600		36000		1800		60		69		51		72		50		65	
Aroclor 1260	6700		2500		22000		17000		14000		5000		19		110		10		65		9.3		52	

Data Qualifiers

U -Analyte not detected above reporting limit.

J - Identification of analyte is acceptable; reported value is an estimate.