

**Polychlorinated Biphenyl (PCB) Residues in Water, Stream Sediments  
and Floodplain Soils Collected March 16-18, 2004  
from the Bayou Creek System**

**Wesley J. Birge**

**David J. Price**

**DRAFT REPORT**

**March 18, 2005**

**Submitted to**

**Jon Maybriar**

**Division of Waste Management  
Kentucky's Environmental and Public Protection Cabinet**

## INTRODUCTION

Water, sediments and floodplain soil samples were taken from Big and Little Bayou Creeks on March 16-18, 2004 for PCB analyses. A total of 11 sites were sampled from Big Bayou Creek (stations BB1A through BB9) and 5 sites from Little Bayou Creek (stations LB1 through LB4). In addition, Massac Creek (MC) was sampled (*i.e.* West Fork) and served as a reference station. Samples also were collected and analyzed for effluents 001, 006, 008, and the combined effluents 010 and 011. Three Aroclors (*i.e.* 1248, 1254, 1260) were determined for all samples.

## METHODS

Water samples for PCB analyses were collected in chemically cleaned, 1-L amber glass jars with Teflon-lined caps. New jars were obtained from I-Chem®. Samples were placed on ice until delivery to the laboratory and maintained under refrigeration (4°C) until extraction. Sediment samples were restricted to the upper 5-10 cm of sediment soil, including depositional areas when found. Floodplain soils samples FP1 were collected next to the stream bank, while FP2 was taken 50-100 yards of the shoreline whenever possible. Both floodplain samples were collected 5-10 cm deep, in areas where flood debris was present. Any surface vegetation was removed prior to sampling floodplain soils. All sediment and floodplain samples were collected in acetone-rinsed 0.47 L glass jars with Teflon-lined lids. Stainless steel spoons and scoops used for collections were acetone-rinsed between sampling stations.

## **PCB Extraction and Analysis**

Extraction and cleanup of water samples followed procedures described by Birge and Price (2002), and were completed within 7 days of collection. Wet sediment or floodplain soil extractions of PCB and sample cleanup were performed following U.S. EPA SW-846 Method 3540C (U.S. EPA, 1997; Erickson, 1997) as described previously by Birge and Price (2002). Samples were analyzed for Aroclors 1248, 1254, and 1260 according to SW-846 Method 8082 (U.S. EPA, 1997). Analyses also were performed as described by Birge and Price (2002).

## **Quality Assurance**

Permanent bench records were kept of all assays and annotated as required under Good Laboratory Practices (*Federal Register*, 40 CFR, Part 160, August 17, 1989). All printouts and graphic recordings were filed and are open for inspection. These bench records will be archived within two years after the close of the project but retrievable upon request.

## **RESULTS**

Results for PCB analyses of water samples are given in Tables 1 and 2 for Big and Little Bayou Creeks, respectively. No PCBs were quantifiable, observing a detection limit of 0.08 µg PCB/L, in the water samples collected except for effluent 008 where 1248 was detected at an average concentration of 0.05 µg/L but was below our minimum quantitation limit (MQL). On Little Bayou Creek, Aroclor 1248 was detected at stations LB3 and LB4 and effluent 010+011, however the concentrations were below our MQL. All other water samples from Little Bayou Creek did not show any detectable

PCB concentrations.

PCB concentrations for individual wet-extracted sediments for Massac Creek and Big Bayou Creek are given in Table 3. Mean values for PCB in sediments are given in Table 5 and Figures 1 and 2. No PCBs were detected at the reference stations MC or at stations BB1A and BB1 on Big Bayou Creek. Aroclors 1254 and 1260 were observed in samples taken near effluent 008 (mean values of 111.3 and 335.6  $\mu\text{g}/\text{Kg}$ , respectively). The sediment samples taken near effluent 001 had a mean Aroclor 1248 concentration of 13.8  $\mu\text{g}/\text{Kg}$ .

PCB concentrations for Little Bayou Creek sediments are presented in Table 4 and mean sediment values are presented in Table 5 and Figure 3. As in previous observations, PCBs were not detected at reference station LB1, situated upstream of PGDP outfalls. At the downstream stations LB2A through LB4, Aroclors 1248 and 1260 were detected at all of the stations. The highest 1248 concentration was found at LB2 (96.8  $\mu\text{g}/\text{Kg}$ ). Aroclor 1254 only was detected at LB3 and LB4 and ranged from 4.5 to 8.9  $\mu\text{g}/\text{Kg}$ . Aroclor 1260 values ranged from 5.3 to 14.0  $\mu\text{g}/\text{Kg}$ .

Results for PCBs in individual floodplain soils from Massac Creek and Big Bayou Creek are presented in Table 6 and Figures 4 and 5. Mean Aroclor concentrations are given in Table 8. Floodplain samples were not taken near effluent 008. As observed in the past, floodplain soils near effluent 001 contained the highest PCB concentrations, with mean values of 96.1, 73.8, and 83.9  $\mu\text{g}/\text{Kg}$  for 1248, 1254, and 1260, respectively. No Aroclor 1248 was detected at any of these stream stations. Aroclor 1260 was detected at all stations downstream of BB3. Of the 24 samples collected from these stream stations, Aroclor 1254 was observed in 6 of the samples (25%) and Aroclor 1260

was found in 12 of the samples (50%).

Results for individual floodplain soils from Little Bayou Creek are shown in Table 7 and Figure 6. Mean Aroclor values are given in Table 8. As with the sediments, no PCBs were detected upstream at station LB1. Aroclor 1248 only was detected at LB3; Aroclor 1254 was detected at LB2A, LB2, and LB4; and Aroclor 1260 was detected in all samples for these stations. Aroclor 1254 and 1260 were highest at station LB2 and this was followed by a downstream decrease in PCB contamination (Figure 4). Total PCBs ranged from 17.6 to 137.6 µg/Kg for floodplain soils taken at stations LB2A through LB4.

### **SUMMARY**

Aroclor 1248 was somewhat more prevalent in stream water and effluents than observed in September 2003 (Birge and Price, 2004a; 2003). Although not quantifiable, Aroclor 1248 was detected in effluent 010+011 and water from downstream stations LB3 and LB4 for Little Bayou Creek. These fluctuations in results for effluents and stream water have been noted in past years and likely represent some “periodic” PCB releases from plant operations or, more likely, greater spread of contamination from floodplain soils during spring collections when high flow conditions are more prevalent. Attention should be directed to effluents 001 and 010+011 to determine current operational status of these waste outfalls and the extent of soil contamination found in these areas. Any waste stream from the average treatment plant also should be examined. As noted earlier, the shorter environmental half-life of Aroclor 1248 may represent a “marker” for more recent PCB plant outfall.

Concerning stream sediments, the highest PCB concentrations were taken

around effluent 008 and ranged as high as 133.7 and 414.0 µg/Kg for Aroclors 1254 and 1260, respectively. Lesser amounts of these PCB mixtures were observed near effluents 006 and 001. In addition, concentrations of 4.71 and 5.14 µg/Kg were detected at the most downstream station (*i.e.* BB9). Attention should be given to effluent 008 and the sediments within this area.

As noted in all previous investigations, more PCB contamination was found in Little Bayou Creek. This involved sediments from all stream stations below LB1, as well as those sediments taken near effluent 010+011. This included 1248, 1254, and 1260. The consistent occurrence of 1248 at all samples taken below LB1 may represent some current periodic release from plant operations. The highest total sediment PCB values were 68.2 and 153.9 µg/Kg taken from around effluent 010+011 and the nearby station, LB2, respectively. As shown in the previous study (Birge and Price 2004a,b), PCB contamination was more prevalent in the “near” floodplain soils (*i.e.* within 10 m of the stream banks).

As noted above, during 2003 and 2004 overall PCB contamination was greater when sampled during the spring, at which time stream high-flow events prevail. While current plant operations periodically may release some PCBs, there is greater likelihood that the majority of PCB contamination originates from plant soils and is most evident when floodplain soils are flushed into the stream system. Occurrence of detectable PCBs at the downstream stations (BB8, BB9) on Big Bayou Creek observed during March 2003 and 2004 is also consistent with this view.

## REFERENCES

Birge, W.J. and D.J. Price. 2004a. Analysis of Polychlorinated Biphenyl (PCB) Residues and Metals in Sediment Samples Collected September 8-10, 2003 from the Bayou Creek System. Report submitted March 18, 2004 to Jon Maybriar, Division of Waste Management, Kentucky's Environmental and Public Protection Cabinet.

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Table 1. PCBs in water samples from Big Bayou Creek and effluents collected March 16-18, 2004.

Station	Date	Sample	Aroclor Concentration ( $\mu\text{g/L}$ )		
			1248	1254	1260
MC	3/18/04	PWS1	<0.082	<0.082	<0.082
MC	3/18/04	PWS2	<0.082	<0.082	<0.082
BB1A	3/16/04	PWS1	<0.085	<0.085	<0.085
BB1A	3/16/04	PWS2	<0.081	<0.081	<0.081
BB1	3/16/04	PWS1	<0.081	<0.081	<0.081
BB1	3/16/04	PWS2	<0.082	<0.082	<0.082
BB2A	3/16/04	PWS1	<0.082	<0.082	<0.082
BB2A	3/16/04	PWS2	<0.084	<0.084	<0.084
BB2	3/17/04	PWS1	<0.082	<0.082	<0.082
BB2	3/17/04	PWS2	<0.082	<0.082	<0.082
BB3	3/16/04	PWS1	<0.082	<0.082	<0.082
BB3	3/16/04	PWS2	<0.082	<0.082	<0.082
008	3/17/04	PWS1	0.045*	<0.082	<0.082
008	3/17/04	PWS2	0.052*	<0.083	<0.083
BB4	3/17/04	PWS1	<0.082	<0.082	<0.082
BB4	3/17/04	PWS2	<0.083	<0.083	<0.083
006	3/17/04	PWS1	<0.086	<0.086	<0.086
006	3/17/04	PWS2	<0.085	<0.085	<0.085
BB5	3/17/04	PWS1	<0.084	<0.084	<0.084
BB5	3/17/04	PWS2	<0.082	<0.082	<0.082
001	3/17/04	PWS1	<0.084	<0.084	<0.084
001	3/17/04	PWS2	<0.084	<0.084	<0.084
BB6	3/17/04	PWS1	<0.081	<0.081	<0.081
BB6	3/17/04	PWS2	<0.081	<0.081	<0.081
BB7	3/18/04	PWS1	<0.082	<0.082	<0.082
BB7	3/18/04	PWS2	<0.082	<0.082	<0.082
BB8	3/18/04	PWS1	<0.082	<0.082	<0.082
BB8	3/18/04	PWS2	<0.088	<0.088	<0.088
BB9	3/18/04	PWS1	<0.084	<0.084	<0.084
BB9	3/18/04	PWS2	<0.082	<0.082	<0.082



\* PCBs detected, however values were below the Minimum Quantitation Level (MQL).

Table 2. PCB results for water samples from Little Bayou Creek and effluents collected March 16-18, 2004.

Station	Date	Sample	Aroclor Concentration ( $\mu\text{g/L}$ )		
			1248	1254	1260
LB1	3/18/04	PWS1	<0.083	<0.083	<0.083
LB1	3/18/04	PWS2	<0.084	<0.084	<0.084
LB2A	3/17/04	PWS1	<0.083	<0.083	<0.083
LB2A	3/17/04	PWS2	<0.081	<0.081	<0.081
010+011	3/17/04	PWS1	0.049*	<0.082	<0.082
010+011	3/17/04	PWS2	0.063*	<0.082	<0.082
LB2	3/17/04	PWS1	<0.081	<0.081	<0.081
LB2	3/17/04	PWS2	<0.082	<0.082	<0.082
LB3	3/17/04	PWS1	<0.081	<0.081	<0.081
LB3	3/17/04	PWS2	0.055*	<0.082	<0.082
LB4	3/18/04	PWS1	0.045*	<0.082	<0.082
LB4	3/18/04	PWS2	0.048*	<0.083	<0.083

\* PCBs detected, however values were below the Minimum Quantitation Level (MQL).

Table 3. PCB results for stream sediment samples from Massac Creek and Big Bayou Creek, collected March 16-18, 2004.

Station	Date	Sample <sup>1</sup>	Sample			Aroclor Conc. (µg/Kg)			
			Wet Wt. (g)	Dry Wt. (g)	% Moisture	1248	1254	1260	Total
MC	3/18/04	PSED1A	51.29	42.16	17.8	<4.74	<4.74	<4.74	<4.74
MC	3/18/04	PSED1B	50.10	40.86	18.4	<4.89	<4.89	<4.89	<4.89
BB1A	3/16/04	PSED1A	51.18	35.43	30.8	<5.64	<5.64	<5.64	<5.64
BB1A	3/16/04	PSED1B	51.71	41.40	19.9	<4.83	<4.83	<4.83	<4.83
BB1	3/16/04	PSED1A	50.49	40.71	19.4	<4.91	<4.91	<4.91	<4.91
BB1	3/16/04	PSED1B	54.18	44.59	17.7	<4.49	<4.49	<4.49	<4.49
BB2A	3/16/04	PSED1A	49.20	37.07	24.7	<5.40	<5.40	<5.40	<5.40
BB2A	3/16/04	PSED1B	52.05	39.98	23.2	5.14	<5.00	<5.00	5.14
BB2	3/17/04	PSED1A	52.10	38.17	26.7	<5.24	<5.24	<5.24	<5.24
BB2	3/17/04	PSED1B	53.78	39.27	27.0	<5.09	<5.09	<5.09	<5.09
BB3	3/16/04	PSED1A	52.05	41.91	19.5	<4.77	<4.77	<4.77	<4.77
BB3	3/16/04	PSED1B	51.88	41.75	19.5	<4.79	4.54	<4.79	4.54
008	3/17/04	PSED1A	49.96	34.56	30.8	<5.79	133.64	413.93	547.58
008	3/17/04	PSED1B	49.50	35.06	29.2	<5.70	88.94	257.24	346.18
BB4	3/17/04	PSED1A	50.00	43.36	13.3	4.12	<4.61	<4.61	4.12
BB4	3/17/04	PSED1B	53.15	46.66	12.2	4.21	<4.29	<4.29	4.21

<sup>1</sup> PSED1A and PSED1B are duplicates from the sediment sample.

Table 3, continued. PCB results for stream sediment samples from Massac Creek and Big Bayou Creek, collected March 16-18, 2004.

Station	Date	Sample <sup>1</sup>	Sample			Aroclor Conc. (µg/Kg)			
			Wet Wt. (g)	Dry Wt. (g)	% Moisture	1248	1254	1260	Total
006	3/17/04	PSED1A	50.34	32.63	35.2	<6.13	<6.13	<6.13	<6.13
006	3/17/04	PSED1B	50.68	33.11	34.7	<6.04	6.46	5.44	11.89
BB5	3/17/04	PSED1A	52.05	45.80	12.0	<4.37	<4.37	<4.37	<4.37
BB5	3/17/04	PSED1B	51.78	43.93	15.2	<4.55	<4.55	<4.55	<4.55
001	3/17/04	PSED1A	51.36	26.89	47.6	13.07	<7.44	<7.44	13.07
001	3/17/04	PSED1B	50.21	25.93	48.4	14.55	<7.71	<7.71	14.55
BB6	3/17/04	PSED1A	52.56	45.83	12.8	<4.36	4.93	<4.36	4.93
BB6	3/17/04	PSED1B	49.42	37.26	24.6	<5.37	<5.37	<5.37	<5.37
BB7	3/18/04	PSED1A	49.78	40.99	17.7	<4.88	4.72	<4.88	4.72
BB7	3/18/04	PSED1B	52.52	43.67	16.9	<4.58	4.34	<4.58	<4.58
BB8	3/18/04	PSED1A	52.52	45.83	12.7	<4.36	<4.36	<4.36	<4.36
BB8	3/18/04	PSED1B	50.42	40.96	18.8	<4.88	<4.88	<4.88	<4.88
BB9	3/18/04	PSED1A	50.85	41.29	18.8	<4.84	<4.84	4.71	4.71
BB9	3/18/04	PSED1B	51.68	41.45	19.8	<4.83	<4.83	5.14	5.14

<sup>1</sup> PSED1A and PSED1B are duplicates from the sediment sample.

Table 4. PCB results for stream sediment samples Little Bayou Creek, collected March 16-18, 2004.

Station	Date	Sample <sup>1</sup>	Sample			Aroclor Conc. (µg/Kg)			
			Wet Wt. (g)	Dry Wt. (g)	% Moisture	1248	1254	1260	Total
LB1	3/18/04	PSED1A	51.25	37.76	26.3	<5.30	<5.30	<5.30	<5.30
LB1	3/18/04	PSED1B	50.49	36.90	26.9	<5.42	<5.42	<5.42	<5.42
LB2A	3/17/04	PSED1A	51.05	38.53	24.5	21.87	<5.19	6.79	28.66
LB2A	3/17/04	PSED1B	50.66	39.25	22.5	16.72	<5.10	3.75	20.47
010+011	3/17/04	PSED1A	50.94	35.19	30.9	52.28	<5.68	15.92	68.20
010+011	3/17/04	PSED1B	49.62	34.48	30.5	31.48	<5.80	11.27	42.74
LB2	3/17/04	PSED1A	51.67	40.08	22.4	141.06	<4.99	12.86	153.92
LB2	3/17/04	PSED1B	50.15	37.50	25.2	52.50	<5.33	15.05	67.55
LB3	3/17/04	PSED1A	50.76	37.49	26.1	19.99	9.25	6.44	35.67
LB3	3/17/04	PSED1B	52.27	36.95	29.3	20.42	8.51	8.19	37.13
LB4	3/18/04	PSED1A	50.25	34.69	31.0	12.66	3.98	4.72	21.36
LB4	3/18/04	PSED1B	50.03	34.48	31.1	13.04	5.04	6.76	24.84

<sup>1</sup> PSED1A and PSED1B are duplicates from the sediment sample.

Table 5. Mean PCB results for stream sediment samples from Massac Creek (MC) and Bayou Creek system collected March 16-18, 2004.

Station	Aroclor Conc. ( $\mu\text{g}/\text{Kg}$ )			
	1248	1254	1260	Total
MC	N.D.	N.D.	N.D.	N.D.
BB1A	N.D.	N.D.	N.D.	N.D.
BB1	N.D.	N.D.	N.D.	N.D.
BB2	N.D.	N.D.	N.D.	N.D.
BB2A	5.14	N.D.	N.D.	5.14
BB3	N.D.	4.54	N.D.	4.54
008	N.D.	111.29	335.59	446.88
BB4	4.16	N.D.	N.D.	4.16
006	N.D.	6.46	5.44	5.95
BB5	N.D.	N.D.	N.D.	N.D.
001	13.81	N.D.	N.D.	13.81
BB6	N.D.	4.93	N.D.	4.93
BB7	N.D.	4.53	N.D.	4.72
BB8	N.D.	N.D.	N.D.	N.D.
BB9	N.D.	N.D.	4.92	4.92
LB1	N.D.	N.D.	N.D.	N.D.
LB2A	19.29	N.D.	5.27	24.57
010+011	41.88	N.D.	13.60	55.47
LB2	96.78	N.D.	13.95	110.73
LB3	20.20	8.88	7.31	36.40
LB4	12.85	4.51	5.74	23.10

Table 6. PCB results for floodplain soils from Massac Creek and Big Bayou Creek, collected March 16-18, 2004.

Station	Date	Sample	Sample			Aroclor Conc. ( $\mu\text{g}/\text{Kg}$ )			
			Wet Wt. (g)	Dry Wt. (g)	% Moisture	1248	1254	1260	Total
MC	3/18/04	PFP1	50.57	39.94	21.0	<5.01	<5.01	<5.01	<5.01
MC	3/18/04	PFP2	50.26	42.43	15.6	<4.71	<4.71	<4.71	<4.71
BB1A	3/16/04	PFP1	50.44	29.47	41.6	<6.79	<6.79	<6.79	<6.79
BB1A	3/16/04	PFP2	50.24	35.74	28.9	<5.60	<5.60	<5.60	<5.60
BB1	3/16/04	PFP1	51.10	31.74	37.9	<6.30	11.53	10.83	22.36
BB1	3/16/04	PFP2	50.86	36.36	28.5	<5.50	<5.50	<5.50	<5.50
BB2A	3/16/04	PFP1	50.54	45.77	9.4	<4.37	<4.37	<4.37	<4.37
BB2A	3/16/04	PFP2	49.88	25.43	49.0	<7.87	<7.87	<7.87	<7.87
BB2	3/17/04	PFP1	49.72	37.97	23.6	<5.27	<5.27	<5.27	<5.27
BB2	3/17/04	PFP2	49.53	41.96	15.3	<4.77	<4.77	<4.77	<4.77
BB3	3/16/04	PFP1	50.18	37.90	24.5	<5.28	<5.28	<5.28	<5.28
BB3	3/16/04	PFP2	50.89	34.37	32.5	<5.82	<5.82	8.70	8.70
BB4	3/17/04	PFP1	49.72	42.08	15.4	<4.75	7.11	5.09	12.20
BB4	3/17/04	PFP2	50.32	34.59	31.3	<5.78	<5.78	<5.78	<5.78

Table 6, continued. PCB results for floodplain soils from Massac Creek and Big Bayou Creek, collected March 16-18, 2004.

Station	Date	Sample	Sample			Aroclor Conc. (µg/Kg)			
			Wet Wt. (g)	Dry Wt. (g)	% Moisture	1248	1254	1260	Total
006	3/17/04	PFP1	50.84	38.62	24.0	<5.18	31.21	8.09	39.30
BB5	3/17/04	PFP1	49.41	38.61	21.9	<5.18	<5.18	<5.18	<5.18
BB5	3/17/04	PFP2	49.95	35.04	29.9	<5.71	<5.71	5.10	5.10
001	3/17/04	PFP1	50.02	40.80	18.4	83.13	61.50	69.49	214.12
001	3/17/04	PFP2	51.73	42.15	18.5	109.03	86.00	98.39	293.43
BB6	3/17/04	PFP1	49.74	44.94	9.7	<4.45	<4.45	3.97	3.97
BB6	3/17/04	PFP2	50.08	37.14	25.8	<5.38	15.62	8.65	24.28
BB7	3/18/04	PFP1	51.86	41.31	20.3	<4.84	<4.84	4.86	4.86
BB7	3/18/04	PFP2	51.01	38.25	25.0	<5.23	<5.23	4.55	4.55
BB8	3/18/04	PFP1	50.54	43.91	13.1	<4.55	28.67	15.05	43.71
BB8	3/18/04	PFP2	51.35	36.37	29.2	<5.50	<5.50	5.89	5.89
BB9	3/18/04	PFP1	51.43	38.50	25.1	<5.20	6.38	6.96	13.34
BB9	3/18/04	PFP2	49.54	31.97	35.5	<6.26	6.28	7.96	14.24



Table 7. PCB results for floodplain soils from Little Bayou Creek, collected March 16-18, 2004.

Station	Date	Sample	Sample			Aroclor Conc. ( $\mu\text{g}/\text{Kg}$ )			
			Wet Wt. (g)	Dry Wt. (g)	% Moisture	1248	1254	1260	Total
LB1	3/18/04	PFP1	51.55	41.57	19.4	<4.81	<4.81	<4.81	<4.81
LB1	3/18/04	PFP2	50.32	39.73	21.0	<5.03	<5.03	<5.03	<5.03
LB2A	3/17/04	PFP1	50.84	34.23	32.7	<5.84	45.13	57.65	102.77
LB2A	3/17/04	PFP2	51.16	36.29	29.1	<5.51	72.70	99.76	172.46
LB2	3/17/04	PFP1	50.32	36.67	27.1	<5.45	171.06	181.53	352.59
LB2	3/17/04	PFP2	50.80	34.85	31.4	<5.74	15.76	21.39	37.15
LB3	3/17/04	PFP1	50.72	39.01	23.1	72.67	<5.13	26.09	98.76
LB3	3/17/04	PFP2	51.20	35.64	30.4	75.03	<5.61	25.30	100.33
LB4	3/18/04	PFP1	50.81	38.05	25.1	<5.26	15.49	14.20	29.69
LB4	3/18/04	PFP2	50.37	31.68	37.1	<6.31	<6.31	5.44	5.44

Table 8. Mean PCB results for floodplain soil samples from Massac Creek (MC) and Bayou Creek system collected March 16-18, 2004.

Station	Aroclor Conc. ( $\mu\text{g}/\text{Kg}$ )			
	1248	1254	1260	Total
MC	N.D.	N.D.	N.D.	N.D.
BB1A	N.D.	N.D.	N.D.	N.D.
BB1	N.D.	11.53	10.83	22.36
BB2A	N.D.	N.D.	N.D.	N.D.
BB2	N.D.	N.D.	N.D.	N.D.
BB3	N.D.	N.D.	8.70	8.70
BB4	N.D.	7.11	5.09	12.20
006	N.D.	31.21	8.09	39.30
BB5	N.D.	N.D.	5.10	5.10
001	96.08	73.75	83.94	253.77
BB6	N.D.	15.62	6.31	14.13
BB7	N.D.	N.D.	4.71	4.71
BB8	N.D.	28.67	10.47	24.80
BB9	N.D.	6.33	7.46	13.79
LB1	N.D.	N.D.	N.D.	N.D.
LB2A	N.D.	58.91	78.70	137.62
LB2	N.D.	93.41	101.46	194.87
LB3	73.85	N.D.	25.70	99.55
LB4	N.D.	15.49	9.82	17.56

Figure 1. Mean PCB concentrations in sediments from Massac Creek and Big Bayou Creek collected March 16-18, 2004.

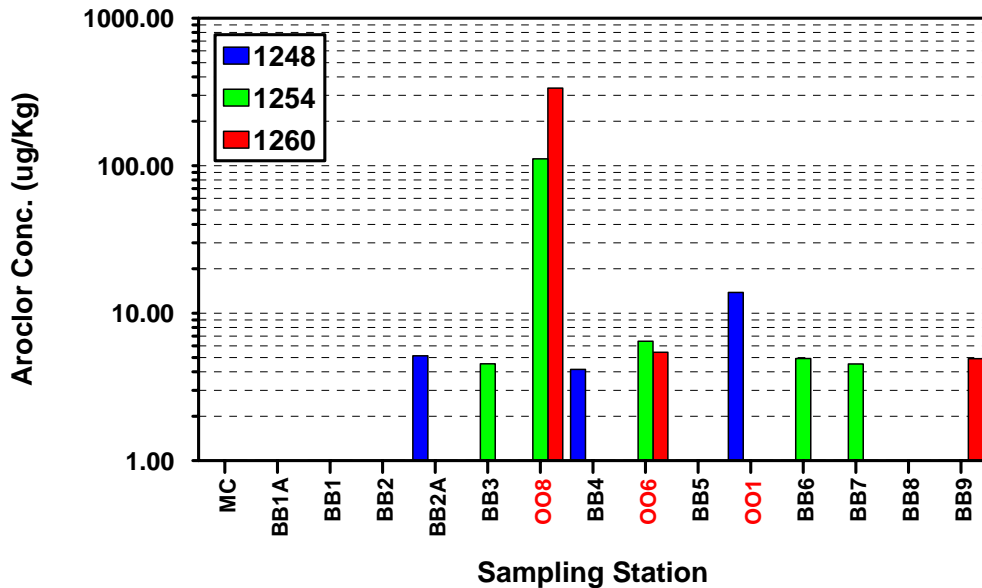


Figure 2. Mean total PCB concentrations in sediments from Massac Creek and Big Bayou Creek collected March 16-18, 2004.

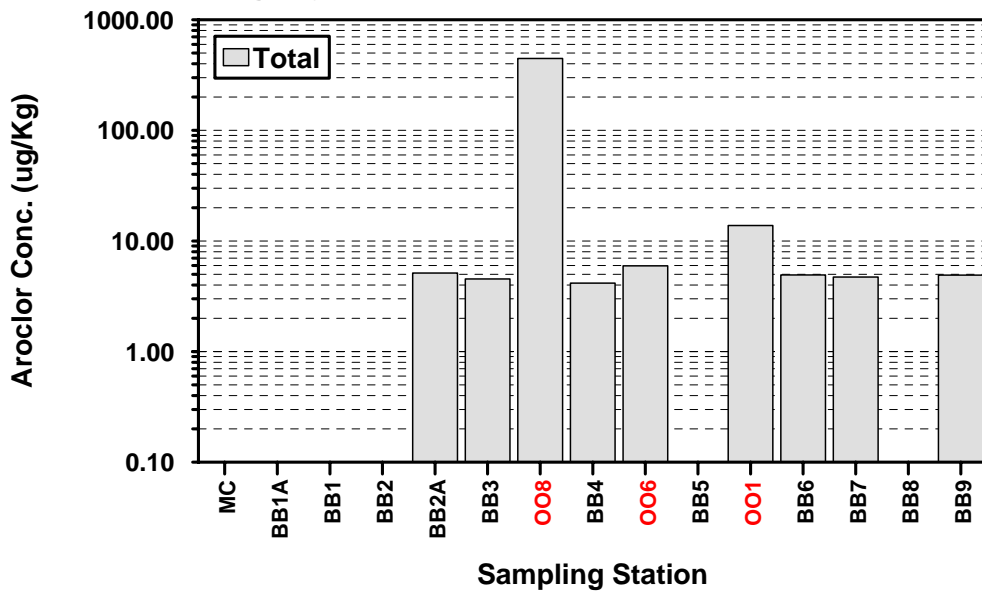


Figure 3. Mean PCB concentrations in sediments from Little Bayou Creek collected March 16-18, 2004.

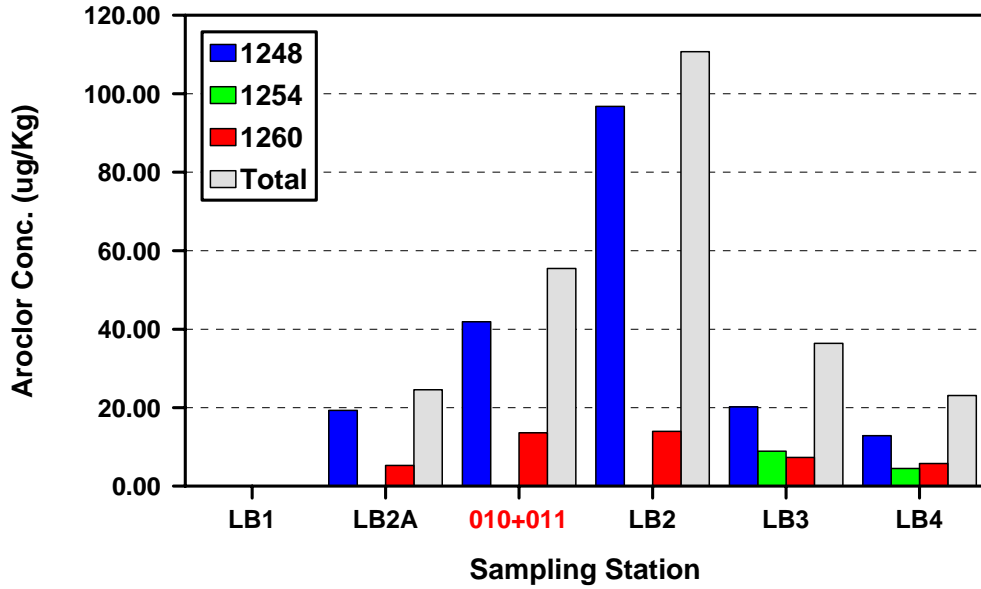


Figure 4. Mean PCB concentrations in floodplain soils from Massac Creek and Big Bayou Creek collected March 16-18, 2004.

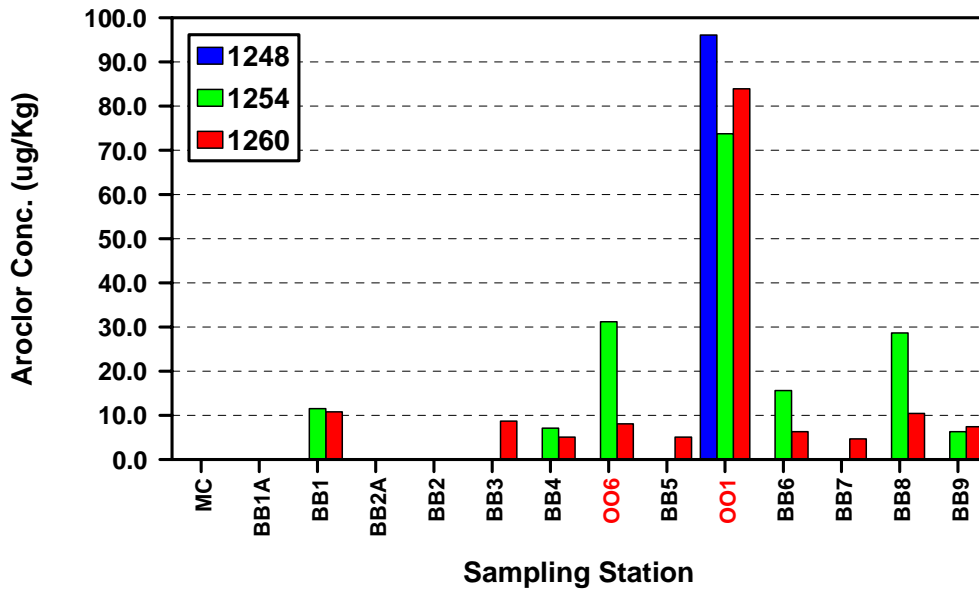


Figure 5. Mean total PCB concentrations in floodplain soils from Massac Creek and Big Bayou Creek collected March 16-18, 2004.

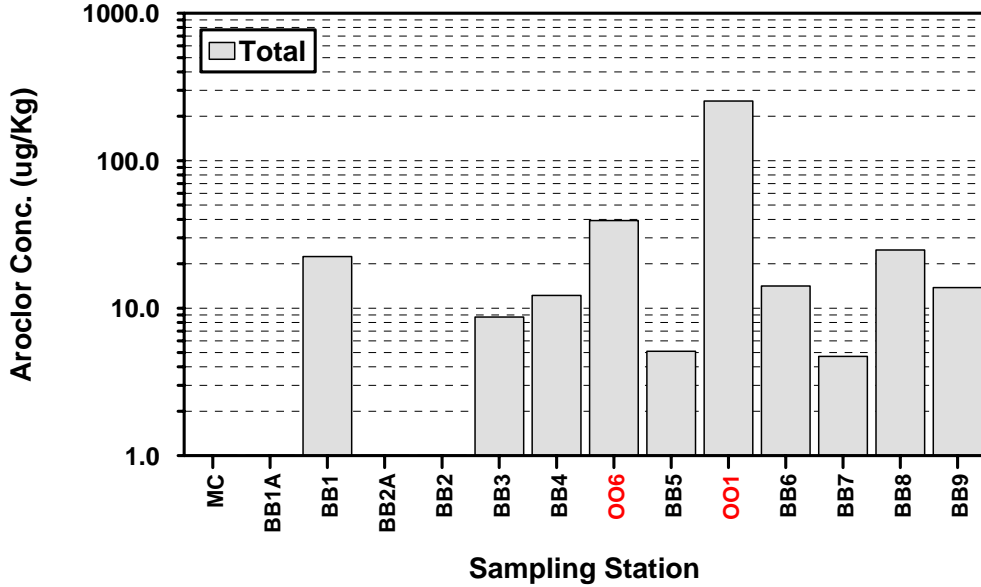


Figure 6. Mean PCB concentrations in floodplain soils from Little Bayou Creek collected March 16-18, 2004.

