PCB Assays for Water Samples from Little Bayou Creek Collected in September, 1997

Water samples collected from the Bayou system in July 1997 were analyzed for PCBs and Metals (Birge and Price, 1997). PCB was not found in water samples from Big Bayou creek. However, significant PCB contamination was detected in water samples from monitoring stations LB2A, LB2, and LB3 on Little Bayou creek. These stations are downstream of the 011 effluent from PGDP.

RESULTS

During a collection made later in 1997 (*i.e.* September 29,30), the stations on Little Bayou creek were resampled and the results are given in Table 1. Methods were as described by Birge and Price (1997). There was no detection of PCBs in these samples. However, fish taken from these stations during the same survey were contaminated with PCBs. Values for total PCB were at or above 1.0 mg/Kg in most fish collected at LB2A and LB2, including one action level fish. These were assays of edible fillet (Birge *et al.*, 1998). Sediments from these stations also were contaminated with PCBs (Birge and Price, 1997). Therefore, it is likely that PCBs were present below the detection limit at the time of the September collections. It is recommended that water from Little Bayou creek be sampled and analyzed for PCBs bimonthly over the next 6 to 12 months. We are also including a format on our new numbering system (Table 2).

Table 1. PCB results for PGDP surface water samples collected from Little Bayou Creek September 29-30, 1997.

	Aroclor Concentration (μg/L)		
Sampling Station	1248	1254	1260
LB4093097PWSU1	<0.080	<0.080	<0.080
LB4093097PWSU2	<0.080	<0.080	<0.080
LB3092997PWSU1	<0.080	<0.080	<0.080
LB3092997PWSU2	<0.080	<0.080	<0.080
LB2092997PWSU1	<0.080	<0.080	<0.080
LB2092997PWSU2	<0.081	<0.081	<0.081
LB2A092997PWSU1	<0.110	<0.110	<0.110
LB2A092997PWSU2	<0.097	<0.097	<0.097

Table 2. The sample numbering system we are proposing is given below. If you have any comments, let us know. The numbers have 15 characters, which will fit electronic data reporting requirements.

Sample Location	Date	Target Chemical	Matrix	Matrix Sample Number*	Duplicates
BB1	071597	M	SED	1	A

Where:

Target chemical or other parameters:

P = PCB
M = Metals
H = Mercury
T = Temperature
Etc.

Matrix:

WGR = Ground Water
WSU = Surface Water
FSR = Fish stoneroller
FBG = Fish bluegill
FGS = Fish green sunfish
FLS = Fish longear sunfish
FPS = Floodplain soil
SED = Sediment
SOI = Soil
SER = Sediment recovery
PRR = Procedure recovery
BLK = Blank
CON = Control
HBO = Hawk blood
DLV = Deer liver

Example:

BB1071597MSED1A:

Sediment sample 1 from Big Bayou Station 1 collected 7/15/97 to be assayed for metals.

* Number assigned to individual samples collected from the same station or location at the same time. For five samples from BB1 taken during one sampling event, each would be listed separately as 1,2,3,4,5.

REFERENCES

Birge, W.J. and D.J. Price. 1997. Analysis of Metals and PCBs in Environmental Samples from the Bayou Creek Systems. Report submitted to FFOU December 8, 1997. 40 pp.

Birge, W.J., D.J. Price, and M.D. Kercher. 1998. Report to FFOU on Polychlorinated Biphenyl (PCB) Residues in Fish from the Bayou Creek System. Report submitted to FFOU January 30, 1998. 13 pp.