

Table 7. Contaminant Data for Pool 5 of the Upper Mississippi River

Record #		454	453	348	351	353	355	352	350	349	
River Mile		752.7	752.6	752.5	752.5	752.5	752.5	752.5	752.5	752.5	
Location		LOWER APPROACH LD/4	LOWER APPROACH LD/4	R-Island 40-1	R-Island 40-3 - Prec	R-Island 40-4 - Prec	R-Island 40-5	R-Island 40-3 - Pace	R-Island 40-2 - Pace	R-Island 40-2 - Prec	
Year		1989	1989	1987	1987	1987	1987	1987	1987	1987	
System		1	1	1	1	1	1	1	1	1	
Habitat Type		1	1	3	3	3	3	3	3	3	
Pool		5	5	5	5	5	5	5	5	5	
Sam. Gear		1	1	1	1	1	1	1	1	1	
Sam. Depth		10	10	10	10	10	10	10	10	10	
Data Cit.		COE	COE	COE	COE	COE	COE	COE	COE	COE	
C H C ' S	ug/kg	a-BHC	< 0.07	< 0.07	< 5	< 5	< 5	< 5		< 5	
	ug/kg	b-BHC	< 0.14	< 0.14	< 5	< 5	< 5	< 5		< 5	
	ug/kg	BHC	< 0.22	< 0.21							
	ug/kg	g-BHC (lindane)	< 0.1	< 0.1	< 5	< 5	< 5	< 5		< 5	
	ug/kg	Heptachlor	< 0.07	< 0.07	< 5	< 5	< 5	< 5		< 5	
	ug/kg	Aldrin	< 0.1	< 0.1							
	ug/kg	Heptachlorepoxi	< 0.12	< 0.12							
	ug/kg	Endosulfan I	< 0.12	< 0.12							
	ug/kg	Dieldrin	< 0.12	< 0.12	< 5	< 5	< 5	< 5		< 5	
	ug/kg	4,4'-DDE	< 0.1	< 0.1	< 5	< 5	< 5	< 5		< 5	
	ug/kg	Endrin	< 0.22	< 0.21	< 5	< 5	< 5	< 5		< 5	
	ug/kg	Endosulfan II	< 0.24	< 0.24							
	ug/kg	4,4'-DDD	< 0.26	< 0.26	< 5	< 5	< 5	< 5		< 5	
	ug/kg	Endrinaldehyde	< 0.26	< 0.26							
	ug/kg	Sulfan sulfat	< 0.26	< 0.26							
	ug/kg	4,4'-DDT	< 0.31	< 0.31	< 5	< 5	< 5	< 5		< 5	
	ug/kg	Methoxychlor	< 0.53	< 0.52							
	ug/kg	Endrinetone	< 0.26	< 0.26							
ug/kg	Chlorodane	< 1.44	< 1.43	< 5	< 5	< 5	< 5		< 5		
ug/kg	Toxaphene	< 1.44	< 1.43								
M E T A L S	mg/kg	Ag (silver)									
	mg/kg	Al (aluminum)									
	mg/kg	As (arsenic)	1.4	1.8	84.1	77.7	130.8	< 1.2	0.79	0.74	< 1.2
	mg/kg	B (boron)									
	mg/kg	Ba (barium)									
	mg/kg	Be (beryllium)									
	mg/kg	Cd (cadmium)	< 1.2	< 1.1	< 1.5	< 1.5	< 1.5	< 1.5	< 0.1	< 0.1	< 1.5
	mg/kg	Cr (chromium)	4.5	9	< 3.7	< 3.7	< 3.7	< 3.7	6	5.2	< 3.7
	mg/kg	Cu (copper)	3.4	7.1	< 3.2	< 3.2	< 3.2	< 3.2	4.4	3.2	2.1
	mg/kg	Fe (iron)									
	mg/kg	Hg (mercury)	< 0.12	< 0.12	< 0.8	< 0.8	< 0.8	< 0.8	< 0.02	< 0.02	< 0.8
	mg/kg	Mg (magnesium)									
	mg/kg	Mn (manganese)	320	510	207.8	187	116	73.9	130	190	208
	mg/kg	Mo (molybdenum)									
	mg/kg	Ni (nickel)	5.3	11	< 12.9	< 12.9	< 12.9	< 12.9	8.4	6.7	< 12.9
mg/kg	Pb (lead)	1.2	0.91	6.3	3.4	3.3	3.4	< 1	< 1	3.1	
mg/kg	Sb (antimony)										
mg/kg	Se (selenium)	< 0.87	< 0.84								
mg/kg	Sn (tin)										
mg/kg	Sr (strontium)										
mg/kg	Ti (titanium)										
mg/kg	Zn (zinc)	15.2	25.4	25.4	16.7	5.9	10.2	10	9.8	23.3	
mg/kg	V (vanadium)										
P C B ' S	ug/kg	Aroclor-1006	< 1.44	< 1.43							
	ug/kg	Aroclor-1221	< 1.44	< 1.43							
	ug/kg	Aroclor-1232	< 1.44	< 1.43							
	ug/kg	Aroclor-1242	< 1.44	< 1.43							
	ug/kg	Aroclor-1248	< 1.44	< 1.43							
	ug/kg	Aroclor-1254	< 3	< 2.98							
	ug/kg	Aroclor-1260	< 3	< 2.98							
	ug/kg	Total PCB's			0	0	0	0	0	0	0
P A R T I C L E S I Z E % F I N E R	D	c o o r s e	3 in								
			1 1/2								
			3/4								
			3/8								
			4	100	96.5						
			8								
	A	m e d i u m	10	99.7	84.3		19.2				66.4
			16	95.6	58.8						
			18								
			20								
			30	52.2	27.8						
			40				1.6				2.5
S	f i n e	50	52.2	27.8							
		60									
		70									
		80	2.9	11.6							
		100	0.3	8.1							
		140	0.2			0.2				0.8	
P A R T I C L E S I Z E % F I N E R	F I L A Y	200	0.1								
		270				0.0				0.5	
		0.20 mm									
		0.05 mm									
M I S C	%	Total Organic Car	0.036	0.066	0.45	0.57				0.18	
	mg/kg	Chem Oxy Demand									
	mg/kg	Kjedahl Nitrogen									
	mg/kg	Total Phosph									
	mg/kg	Oil and Grease									
	mg/kg	Cyanide, Total	< 0.63	< 0.6							
	mg/kg	Ammonia	0.5	1.00							
	mg/l	Ammonia Elutriate									
%	Moisture	20	16.8								
%	Total Solids	80	83.2								
%	Volatile Solids	0.5	0.7								

Table 7. Contaminant Data for Pool 5 of the Upper Mississippi River

Record #		354	157	707	158	159	160	447			
River Mile		752.5	752.0	749.9	749.1	749.0	749.0	748.2	748	747.9	
Location		R-Island 40-4 - Pace		Bwtr. Down Zumbro R	MULE BEND	MULE BEND	MULE BEND	WEST NEWTON	WEST NEWTON 2 CT LABS	WEST NEWTON	
Year		1987	1979	1985	2002	1979	1979	1980	2008	1989	
System		1	1	1	1	1	1	1	1	1	
Habitat Type		3	1	3	1	1	1	1	1	1	
Pool		5	5	5	5	5	5	5	5	5	
Sam. Gear		1	1	2	1	1	1	1	1	1	
Sam. Depth		10	10	10	10	10	10	10	10	10	
Data Cit.		COE	COE	FWS	COE	COE	COE	COE	COE	COE	
C H C L S	ug/kg	a-BHC		< 10	<0.12					< 0.74	
	ug/kg	b-BHC		< 10	<0.12					< 1.49	
	ug/kg	BHC			<0.12					< 2.23	
	ug/kg	g-BHC (lindane)		< 10	<0.12					< 0.99	
	ug/kg	Heptachlor		< 10	<0.08					< 0.74	
	ug/kg	Aldrin								< 0.99	
	ug/kg	Heptachlorepoxi			<1.48					< 1.24	
	ug/kg	Endosulfan I								< 1.24	
	ug/kg	Dieldrin		0	< 10	<0.12	0	0	0	< 3.2	
	ug/kg	4,4'-DDE		0	< 10	<0.12	0	0	0	< 3.5	
	ug/kg	Endrin		0	< 10	<0.12	0	0	0	< 2.23	
	ug/kg	Endosulfan II								< 2.48	
	ug/kg	4,4'-DDD		0	< 10	<0.12	0	0	0	< 3.7	
	ug/kg	Endrinaldehyde								< 2.73	
	ug/kg	Sulfan sulfate								< 2.73	
ug/kg	4,4'-DDT		0	10	<0.24	0	0	0	< 4.2		
ug/kg	Methoxychlor								< 5.46		
ug/kg	Endrinetone								< 2.73		
ug/kg	Chlorodane		0	< 10	<0.36	0	0	0	< 14.88		
ug/kg	Toxaphene								< 14.88		
M E T A L S	mg/kg	Ag (silver)		< 0.4							
	mg/kg	Al (aluminum)		11900							
	mg/kg	As (arsenic)	0.92	0	< 7	0.807	0	0	0	0.75	
	mg/kg	B (boron)			5						
	mg/kg	Ba (barium)		20	146		30	30	30		
	mg/kg	Be (beryllium)			0.63						
	mg/kg	Cd (cadmium)	< 0.1	< 10	< 0.3	0.1	< 10	< 10	< 10	<1.0	
	mg/kg	Cr (chromium)	4.4	< 10	20	3.77	< 10	< 10	< 10	7	
	mg/kg	Cu (copper)	3.2	< 10	15	3.8	< 10	< 10	< 10	3.6	
	mg/kg	Fe (iron)		3300	19300		2600	3600	1800		
	mg/kg	Hg (mercury)	< 0.02	0	0.05	<0.0059	0	0	0	<0.10	
	mg/kg	Mg (magnesium)			5850						
	mg/kg	Mn (manganese)	130	180	< 688	283	150	260	180	424	
	mg/kg	Mo (molybdenum)			2						
	mg/kg	Ni (nickel)	6.8	< 10	19	7.07	< 10	10	< 10	7.9	
mg/kg	Pb (lead)	< 1	< 10	15	3.51	< 10	< 10	< 10	2		
mg/kg	Sb (antimony)			< 4							
mg/kg	Se (selenium)			< 10							
mg/kg	Sn (tin)			< 2							
mg/kg	Sr (strontium)			29.4							
mg/kg	Ti (titanium)			20							
mg/kg	Zn (zinc)	9.5	10	64.2	13.8	10	10	6.3	12.1		
mg/kg	V (vanadium)			< 20							
P C B ' S	ug/kg	Aroclor-1006							<31	< 14.88	
	ug/kg	Aroclor-1221								< 14.88	
	ug/kg	Aroclor-1232								< 14.88	
	ug/kg	Aroclor-1242								< 14.88	
	ug/kg	Aroclor-1248							<29	< 14.88	
	ug/kg	Aroclor-1254							<10	< 31	
	ug/kg	Aroclor-1260							<19	< 31	
	ug/kg	Total PCB's	0	2	0		0	0	1		
P A R T I C L E	S I Z E	D I S T R I B U T I O N	3 in		100		100	100	100		
			1 1/2		100		100	100	100		
			3/4		100		100	100	100		
			3/8		100		100	100	100		
			4		100		100	100	100		
			8		100	98.4	100	99	100	98.08	99.8
			10		96	94.1	99	94	93.33	99.1	
			16						96.0	95.3	
			18				85.3				
			20	70.0			91.0	72.0		74.68	
			30								
			40	15.0			53.0	21.0	35.0	20.35	
			50				4.8				
			60								
			70				0.5				
80	2.0			2.0	3.0		0.39				
100				0.1			0.0				
140				0.0			0.34				
200		1.0		0.0	1.0	2.0	0.0				
270							0.3				
0.20 mm		1.0		0.0	1.0	0.0	0.0				
0.05 mm		0.0		0.0	0.0	0.0	0.0				
M I S C	%	Total Organic Car			0.02				<1200	0.035	
	mg/kg	Chem Oxy Demand		970		3700	1800	710			
	mg/kg	Kjedahl Nitrogen		400		300	300	75	91		
	mg/kg	Total Phosph		190		140	230	300			
	mg/kg	Oil and Grease		0		0	0	0			
	mg/kg	Cyanide, Total			<0.10				<0.42	< 0.63	
	mg/kg	Ammonia							<0.73	0.50	
	mg/l	Ammonia Elutriate									
	%	Moisture				22.2			17.5	20.6	
	%	Total Solids				77.8			82.5	79.4	
%	Volatile Solids				0.29			0.0035	0.4		

Table 7. Contaminant Data for Pool 5 of the Upper Mississippi River

Record #		161	162	163				164	448	165		
River Mile		747.8	747.72	747.7	747.7	747.5	747.5	747.3	747.1	746.3		
Location		WEST NEWTON	WEST NEWTON	WEST NEWTON	WEST NEWTON	WEST NEWTON 1 CT LABS	WEST NEWTON 1 STAT	WEST NEWTON	WEST NEWTON	BELOW WEST NEWTON		
Year		1980	1974	1975	2002	2008	2008	1980	1989	1980		
System		1	1	1	1	1	1	1	1	1		
Habitat Type		1	1	1	1	1	1	1	1	1		
Pool		5	5	5	5	5	5	5	5	5		
Sam. Gear		1	1	1	1	1	1	1	1	1		
Sam. Depth		10	10	10	10	10	10	10	10	10		
Data Cit.		COE	COE	COE	COE	COE	COE	COE	COE	COE		
C H C ' S	ug/kg	a-BHC			<0.12		<1.9		< 0.07			
	ug/kg	b-BHC			<0.12		<1.9		< 0.15			
	ug/kg	BHC			<0.12		<1.9		< 0.22			
	ug/kg	g-BHC (lindane)			<0.12		<1.9		< 0.1			
	ug/kg	Heptachlor			0.85		<1.9		< 0.07			
	ug/kg	Aldrin					<1.9		< 0.1			
	ug/kg	Heptachlorepoide			<1.48		<1.9		< 0.12			
	ug/kg	Endosulfan I					<1.9		< 0.12			
	ug/kg	Dieldrin	< 0.2	< 10	<0.12	<3.2	<1.9	0	< 0.12	0		
	ug/kg	4,4'-DDE	< 0.2	10	<0.12	<3.5	<1.9	0	< 0.1	0		
	ug/kg	Endrin	< 0.2	< 10	<0.12		<1.9	0	< 0.22	0		
	ug/kg	Endosulfan II					<1.9		< 0.27			
	ug/kg	4,4'-DDD	< 0.2	< 10	<0.12	<3.7	<1.9	0	< 0.27	0		
	ug/kg	Endrinaldehyde					<1.9		< 0.27			
	ug/kg	Sulfan sulfate							< 0.31			
	ug/kg	4,4'-DDT	< 0.4	< 10	<0.24	<4.2	<1.9	0	< 0.53	0		
	ug/kg	Methoxychlor					<1.9		< 0.27			
	ug/kg	Endrinetone					<1.9		< 1.45			
ug/kg	Chlorodane	< 0.4	< 10	<0.36		<39	0	< 1.45	0			
ug/kg	Toxaphene					<39		< 1.45				
M E T A L S	mg/kg	Ag (silver)										
	mg/kg	Al (aluminum)										
	mg/kg	As (arsenic)		< 0.6	0.57	0.695	1.4	1.5	0	< 0.72	0	
	mg/kg	B (boron)										
	mg/kg	Ba (barium)						30		40		
	mg/kg	Be (beryllium)										
	mg/kg	Cd (cadmium)	0.812	1	< 0.1	<0.08	<1.0	<0.54	< 10	< 1.1	< 10	
	mg/kg	Cr (chromium)	28.3	7	7.7	3.2	5.8	5.5	10	5.2	< 10	
	mg/kg	Cu (copper)	7.44	7	19.8	2.72	2.8	4.3	< 10	11.2	< 10	
	mg/kg	Fe (iron)	8930						1900		2300	
	mg/kg	Hg (mercury)	< 0.01	0.9	0.059	<0.0059	<0.10	<0.029	0	< 0.12	0	
	mg/kg	Mg (magnesium)										
	mg/kg	Mn (manganese)				248	403	610	220	267	300	
	mg/kg	Mo (molybdenum)										
	mg/kg	Ni (nickel)	23.7	5		6.79	5.2	11	< 10	5.7	10	
mg/kg	Pb (lead)	3.82	< 10	< 0.1	3.46		2	1.7	< 10	0.86	< 10	
mg/kg	Sb (antimony)											
mg/kg	Se (selenium)								< 0.84			
mg/kg	Sn (tin)											
mg/kg	Sr (strontium)											
mg/kg	Ti (titanium)											
mg/kg	Zn (zinc)	37.3	30	21.1	13.6	11.8	20	8.2	16	9.9		
mg/kg	V (vanadium)											
P C B ' S	ug/kg	Aroclor-1006					<31	<94		< 1.45		
	ug/kg	Aroclor-1221								< 1.45		
	ug/kg	Aroclor-1232								< 1.45		
	ug/kg	Aroclor-1242								< 1.45		
	ug/kg	Aroclor-1248					<29	<94		< 1.45		
	ug/kg	Aroclor-1254					<10	<94		< 3.03		
	ug/kg	Aroclor-1260					<19	<94		< 3.03		
	ug/kg	Total PCB's	1	0	0				0		2	
P A R T I C L E S I Z E % F I N E R	D I S T R I B U T I O N	C O O R D I N A T E	3 in	100	100	100				100	100	
			1 1/2	100	100	100				100	100	
			3/4	100	100	100				100	100	
			3/8	100	100	100				95	100	
			4	95	100	97	99.8	99.11	97	88	99.5	97
			8	91	98	94				79		90
			10				98.3	90.38	88		97.3	
			16	86.0	94.0	90.0				70.0	90.7	79.0
			18				92.1					
			20					72.46	69.8			
			30								52.3	
			40	32.0	34.0	39.0		27.1	24.8	22.0		22.0
			50					8.2			52.3	
			60					4.27	2.8			
			70					0.6				
80						1.39		10.9				
100	0.0	1.0	4.0	0.1	1.27		0.0	0.1	0.0			
140				0.0			0					
200	0.0	0.0	3.0	0.0	1.15	0	0.0		0.0			
270												
0.20 mm	0.0	0.0					0.0		0.0			
0.05 mm	0.0	0.0					0.0		0.0			
M I S C	%	Total Organic Car				0.02	<1200	520		0.044		
	mg/kg	Chem Oxy Demand	1110	1096	4340				930	710		
	mg/kg	Kjedahl Nitrogen		52			93	<94	4300	450		
	mg/kg	Total Phosph	589	177			550	209				
	mg/kg	Oil and Grease	2130	699	1471				0	0		
	mg/kg	Cyanide, Total				<0.10	0.56	<0.3		< 0.6		
	mg/kg	Ammonia					<0.69	<3		< 0.24		
	mg/l	Ammonia Elutriate										
	%	Moisture				21.5	13.1	15.9		16.7		
	%	Total Solids				78.5	86.9	84.1		83.3		
%	Volatile Solids				0.39	0.0039	<0.01		0.4			

Table 7. Contaminant Data for Pool 5 of the Upper Mississippi River

Record #			449	166	167	450	168	169	170	171	172	
River Mile			746.3	746.0	746.0	745.8	745.3	745.2	745.2	745.2	745.2	
Location			BELVEDERE ISLAND	BELOW WEST NEWTON	BELOW WEST NEWTON	FISCHER ISLAND	R-WEAVER BOTTOMS	FISCHER ISLAND	FISCHER ISLAND	FISCHER ISLAND	FISCHER ISLAND	
Year			1989	1979	1979	1989	1984	1975	1975	1975	1975	
System			1	1	1	1	1	1	1	1	1	
Habitat Type			1	1	1	1	3	1	1	1	1	
Pool			5	5	5	5	5	5	5	5	5	
Sam. Gear			1	1	1	1	1	1	1	1	1	
Sam. Depth			10	10	10	10	10	10	10	10	10	
Data Cit.			COE	COE	COE	COE	COE	COE	COE	COE	COE	
C H C ' S	ug/kg	a-BHC	< 0.07			< 0.07						
	ug/kg	b-BHC	< 0.14			< 0.15						
	ug/kg	BHC	< 0.21			< 0.22						
	ug/kg	g-BHC (lindane)	< 0.1			< 0.1						
	ug/kg	Heptachlor	< 0.07			< 0.07						
	ug/kg	Aldrin	< 0.1			< 0.1						
	ug/kg	Heptachlorepoide	< 0.12			< 0.12						
	ug/kg	Endosulfan I	< 0.12			< 0.12						
	ug/kg	Dieldrin	< 0.12	0	0	< 0.12	< 0.5					
	ug/kg	4,4'-DDE	< 0.1	0	0	< 0.1	< 0.5					
	ug/kg	Endrin	< 0.21	0	0	< 0.22	< 0.5					
	ug/kg	Endosulfan II	< 0.24			< 0.25						
	ug/kg	4,4'-DDD	< 0.26	0	0	< 0.27	< 0.5					
	ug/kg	Endrinaldehyde	< 0.26			< 0.27						
	ug/kg	Sulfan sulfate	< 0.26			< 0.27						
	ug/kg	4,4'-DDT	< 0.31	0	0	< 0.32	< 0.5					
	ug/kg	Methoxychlor	< 0.52			< 0.54						
	ug/kg	Endrinetone	< 0.26			< 0.27						
ug/kg	Chlorodane	< 1.43	0	0	< 1.48	< 0.5						
ug/kg	Toxaphene	< 1.43			< 1.48							
M E T A L S	mg/kg	Ag (silver)										
	mg/kg	Al (aluminum)										
	mg/kg	As (arsenic)	1.4	0	0	1.1	13	0.38	0.45	0.41	0.4	
	mg/kg	B (boron)										
	mg/kg	Ba (barium)		20	30							
	mg/kg	Be (beryllium)										
	mg/kg	Cd (cadmium)	< 1.1	< 10	< 10	< 1.1	1.1	< 0.1	< 0.1	< 0.1	< 0.1	
	mg/kg	Cr (chromium)	7	< 10	< 10	5.5	26	5.9	5.8	4.9	5.9	
	mg/kg	Cu (copper)	10.9	< 10	< 10	7	13	5.7	5.4	6	6.6	
	mg/kg	Fe (iron)		2800	2900		21000					
	mg/kg	Hg (mercury)	< 0.12	0	0	< 0.12		0.031	0.029	0.035	0.036	
	mg/kg	Mg (magnesium)										
	mg/kg	Mn (manganese)	324	240	190	315						
	mg/kg	Mo (molybdenum)										
	mg/kg	Ni (nickel)	9.2	< 10	< 10	8.4	23					
mg/kg	Pb (lead)	2.7	< 10	< 10	0.6	17	< 0.1	< 0.1	< 0.1	< 0.1		
mg/kg	Sb (antimony)											
mg/kg	Se (selenium)	< 0.85			< 0.87							
mg/kg	Sn (tin)											
mg/kg	Sr (strontium)											
mg/kg	Ti (titanium)											
mg/kg	Zn (zinc)	16.6	10	10	15.3	55	19	16.4	16.2	24.5		
mg/kg	V (vanadium)											
P C B ' S	ug/kg	Aroclor-1006	< 1.43			< 1.48						
	ug/kg	Aroclor-1221	< 1.43			< 1.48						
	ug/kg	Aroclor-1232	< 1.43			< 1.48						
	ug/kg	Aroclor-1242	< 1.43			< 1.48						
	ug/kg	Aroclor-1248	< 1.43			< 1.48						
	ug/kg	Aroclor-1254	< 2.98			< 3.08						
	ug/kg	Aroclor-1260	< 2.98			< 3.08						
	ug/kg	Total PCB's		0	0		16	0	0	0	0	
P A R T I C L E S I Z E % F I N E R	D I S T R I B U T I O N	C O O R S E	3 in		100	100		100	100	100	100	
			1 1/2		100	100		100	100	100	100	
			3/4		100	100		100	100	100	100	
			3/8		100	100		100	100	100	100	
			4	94.5	100	96	99.0	99	100	99	100	100
			8					99	99	98	100	100
			10	85.8	100	79	96.7	98				
			16	71.4			91.9	97.0	98.0	95.0	99.0	99.0
			18									
			20		91.0	55.0		96.0				
	30	34.4			54.5	95.0						
	40		37.0	13.0		93.0	37.0	40.0	28.0	28.0		
	50	34.4			54.5	90.0						
	F I N E	C L A S S I F I C A T I O N	60									
			70				87.0					
80			1.7	1.0	2.0	3.8	86.0					
100			0.1			0.2	84.0	4.0	1.0	0.0	0.0	
140												
P A R T I C L E S I Z E	F I L T E R	200		1.0	1.0		67.0	3.0	0.0	0.0	0.0	
		270					46.0					
		0.20 mm		0.0	0.0		17.0		0.0	0.0	0.0	
		0.05 mm		0.0	0.0		5.0		0.0	0.0	0.0	
M I S C	%	Total Organic Carbon	0.045			0.038						
	mg/kg	Chem Oxy Demand		1000	550		82000	2810	1274	1103	1226	
	mg/kg	Kjedahl Nitrogen		400	300		1300					
	mg/kg	Total Phosph		170	230		14000					
	mg/kg	Oil and Grease		0	0		18000	973	29	15	62	
	mg/kg	Cyanide, Total	< 0.61			< 0.62						
	mg/kg	Ammonia	0.3			0.37						
	mg/l	Ammonia Elutriate										
	%	Moisture	17.8			19.9						
	%	Total Solids	82.2			80.1						
%	Volatile Solids	0.5			0.4							

Table 7. Contaminant Data for Pool 5 of the Upper Mississippi River

Record #			708	173	174	315	316	317	175	451	176
River Mile			745.2	745.01	745	745	745	745	744.9	744.9	744.8
Location			R-Upper Weaver Bottoms	FISCHER ISLAND	FISCHER ISLAND	R-Weaver Bottoms	R-Weaver Bottoms	R-Weaver Bottoms	FISCHER ISLAND	LOWER ZUMBRO	R-WEAVER BOTTOMS
Year			1985	1974	1974	1987	1987	1987	1980	1989	1984
System			1	1	1	1	1	1	1	1	1
Habitat Type			3	1	1	3	3	3	1	1	3
Pool			5	5	5	5	5	5	5	5	5
Sam. Gear			2	1	1	1	1	1	1	1	1
Sam. Depth			10	10	10	10	10	10	10	10	10
Data Cit.			FWS	COE	COE	COE	COE	COE	COE	COE	COE
C H C ' S	ug/kg	a-BHC	< 10			< 0.1	< 0.1	< 0.1		< 0.07	
	ug/kg	b-BHC	< 10			< 0.1	< 0.1	< 0.1		< 0.15	
	ug/kg	BHC								< 0.22	
	ug/kg	g-BHC (lindane)	< 10			< 0.1	< 0.1	< 0.1		< 0.1	
	ug/kg	Heptachlor	< 10			< 0.1	< 0.1	< 0.1		< 0.07	
	ug/kg	Aldrin								< 0.1	
	ug/kg	Heptachlorepoxi								< 0.12	
	ug/kg	Endosulfan I								< 0.12	
	ug/kg	Dieldrin	< 10	< 10	< 10	< 0.1	< 0.1	< 0.1	0	< 0.12	< 0.5
	ug/kg	4,4'-DDE	< 10	< 10	< 10	< 0.1	< 0.1	< 0.1	0	< 0.1	< 0.5
	ug/kg	Endrin	< 10	< 10	< 10	< 0.1	< 0.1	< 0.1	0	< 0.22	< 0.5
	ug/kg	Endosulfan II								< 0.24	
	ug/kg	4,4'-DDD	< 10	< 10	< 10	< 0.1	< 0.1	< 0.1	0	< 0.27	< 0.5
	ug/kg	Endrinaldehyde								< 0.27	
	ug/kg	Sulfan sulfate								< 0.27	
ug/kg	4,4'-DDT	10	< 10	< 10	< 0.1	< 0.1	< 0.1	0	< 0.31	< 0.5	
ug/kg	Methoxychlor								< 0.53		
ug/kg	Endrinetone								< 0.27		
ug/kg	Chlorodane	< 10	< 10	< 10	< 0.1	< 0.1	< 0.1	0	< 1.45	< 0.5	
ug/kg	Toxaphene								< 1.45		
M E T A L S	mg/kg	Ag (silver)	< 0.4								
	mg/kg	Al (aluminum)	9700								
	mg/kg	As (arsenic)	< 7	10.9	0.9	8.6	4.6	1.8	0	1.2	13
	mg/kg	B (boron)	4								
	mg/kg	Ba (barium)	154						30		
	mg/kg	Be (beryllium)	0.69								
	mg/kg	Cd (cadmium)	0.9	< 1	< 1	0.13			< 10	< 1.1	1.3
	mg/kg	Cr (chromium)	22	5	5	15	12	12	< 10	7.1	34
	mg/kg	Cu (copper)	20	10	8	6.1	5.6	5.6	< 10	5.8	14
	mg/kg	Fe (iron)	19100						1500		38000
	mg/kg	Hg (mercury)	0.08	0.3	0.2	0.026	0.031	0.045	0	< 0.12	
	mg/kg	Mg (magnesium)	4960								
	mg/kg	Mn (manganese)	< 946			1000	960	420	190	245	
	mg/kg	Mo (molybdenum)	2								
	mg/kg	Ni (nickel)	24	5	5	14	11	9.3	< 10	< 5.7	25
mg/kg	Pb (lead)	19	< 10	< 10	14	8.5	9.3	< 10	0.67	19	
mg/kg	Sb (antimony)	< 4									
mg/kg	Se (selenium)	< 10			0.12	0.28	< 0.1		< 0.87		
mg/kg	Sn (tin)	< 2									
mg/kg	Sr (strontium)	43.8									
mg/kg	Ti (titanium)	20									
mg/kg	Zn (zinc)	69.2	13	13	50	31	25	7.6	31.1	79	
mg/kg	V (vanadium)	< 15									
P C B ' S	ug/kg	Aroclor-1006								< 1.45	
	ug/kg	Aroclor-1221								< 1.45	
	ug/kg	Aroclor-1232								< 1.45	
	ug/kg	Aroclor-1242								< 1.45	
	ug/kg	Aroclor-1248								< 1.45	
	ug/kg	Aroclor-1254								< 3.03	
	ug/kg	Aroclor-1260								< 3.03	
	ug/kg	Total PCB's	0	0	0	9.7	9.3	25	6		7.6
P A R T I C L E S I Z E % F I N E R	D I S T R I B U T I O N	C O O R S E	3 in		100	100			100		100
			1 1/2		100	100			100		100
			3/4		100	100			100		100
			3/8		100	100			100		99
			4		100	100			100	99.5	99
			8		99	99			99		99
			10							97.1	98
			16		97.0	97.0			98.0	88.6	96.0
			18								
			20								95.0
			30							49.3	93.0
			40		71.0	71.0			44.0		91.0
			50							49.3	88.0
			60								
			70								85.0
80							1.9	84.0			
100		0.0	0.0			0.0	0.1	82.0			
140											
P A R T I C L E S I Z E % F I N E R	F I L T R A T I O N	C L A S S	200		0.0	0.0			0.0		72.0
			270								53.0
			0.20 mm		0.0	0.0			0.0		27.0
			0.05 mm		0.0	0.0			0.0		14.0
M I S C	%	Total Organic Car							0.028		
	mg/kg	Chem Oxy Demand		1278	964			800		56400	
	mg/kg	Kjedahl Nitrogen		52	134			30		1600	
	mg/kg	Total Phosph		104	119					14000	
	mg/kg	Oil and Grease	< 6	< 6				0		26000	
	mg/kg	Cyanide, Total							< 0.62		
	mg/kg	Ammonia							0.31		
	mg/l	Ammonia Elutriate									
	%	Moisture							19.6		
	%	Total Solids							80.4		
%	Volatile Solids							0.3			

Table 7. Contaminant Data for Pool 5 of the Upper Mississippi River

Record #		177	178	452	179	180						
River Mile		744.4	744.21	744.2	744.2	743.9	743.22	743.2	743.1	743.1		
Location		ZUMBRO - CT LABS	LOWER ZUMBRO	LOWER ZUMBRO	SOMERFIEL D ISLAND	R-WEAVER BOTTOMS	SOMERFIEL D ISLAND	SOMERFIEL D ISLAND	SOMERFIEL D ISLAND	SOMERFIEL D - CT LABS		
Year		2008	1979	1979	1989	1984	1974	2002	1994	2008		
System		1	1	1	1	1	1	1	1	1		
Habitat Type		1	1	1	1	3	1	1	1	1		
Pool		5	5	5	5	5	5	5	5	5		
Sam. Gear		1	1	1	1	1	1	1	1	1		
Sam. Depth		10	10	10	10	10	10	10	10	10		
Data Cit.		COE	COE	COE	COE	COE	COE	COE	COE	COE		
C H C ' S	ug/kg	a-BHC			< 0.07			<0.12	< 0.25			
	ug/kg	b-BHC			< 0.14			<0.12	< 0.25			
	ug/kg	BHC			< 0.22			<0.12	< 0.25			
	ug/kg	g-BHC (lindane)			< 0.1			<0.12	< 0.25			
	ug/kg	Heptachlor			< 0.07			<0.08	< 0.25			
	ug/kg	Aldrin			< 0.1							
	ug/kg	Heptachlorepoide			< 0.12			<1.48				
	ug/kg	Endosulfan I			< 0.12							
	ug/kg	Dieldrin	<3.2	0	0	< 0.12	< 0.5	< 10	<0.12	< 0.5	<3.2	
	ug/kg	4,4'-DDE	<3.5	0	0	< 0.1	< 0.5	10	<0.12	< 0.5	<3.5	
	ug/kg	Endrin		0	0	< 0.22	< 0.5	< 10	<0.12	< 0.5		
	ug/kg	Endosulfan II				< 0.24						
	ug/kg	4,4'-DDD	<3.7	0	0	< 0.26	< 0.5	< 10	<0.12	< 0.5	<3.7	
	ug/kg	Endrinaldehyde				< 0.26						
	ug/kg	Sulfan sulfate				< 0.26						
ug/kg	4,4'-DDT	<4.2	0	0	< 0.31	< 0.5	< 10	<0.24	< 0.5	<4.2		
ug/kg	Methoxychlor				< 0.53							
ug/kg	Endrinketone				< 0.26							
ug/kg	Chlorodane		0	0	< 1.44	< 0.5	< 10	<0.36	< 0.25			
ug/kg	Toxaphene				< 1.44							
M E T A L S	mg/kg	Ag (silver)										
	mg/kg	Al (aluminum)										
	mg/kg	As (arsenic)	1.8	0	0	2.1	11	< 0.6	0.569	0.83	0.85	
	mg/kg	B (boron)										
	mg/kg	Ba (barium)		30	20							
	mg/kg	Be (beryllium)										
	mg/kg	Cd (cadmium)	<1.0	< 10	< 10	< 1.1	2	< 0.7	<0.08	0.39	<1.0	
	mg/kg	Cr (chromium)	4	< 10	< 10	7.5	24	33	2.99	4.6	4.3	
	mg/kg	Cu (copper)	2.3	< 10	< 10	6.9	12	5	2.75	2.1	2.7	
	mg/kg	Fe (iron)		2400	2100		18000					
	mg/kg	Hg (mercury)	<0.10	0	0	< 0.12		0.4	<0.0060	< 0.05	<0.10	
	mg/kg	Mg (magnesium)										
	mg/kg	Mn (manganese)	342	100	100	477		205	170	268		
	mg/kg	Mo (molybdenum)										
	mg/kg	Ni (nickel)	4.4	< 10	< 10	7.4	20	26	5.43	3.9	4.6	
mg/kg	Pb (lead)	1.6	< 10	< 10	1.3	20	< 7	3.36	1.6	1.6		
mg/kg	Sb (antimony)											
mg/kg	Se (selenium)				< 0.87							
mg/kg	Sn (tin)											
mg/kg	Sr (strontium)											
mg/kg	Ti (titanium)											
mg/kg	Zn (zinc)	9.6	10	< 10	19	48	13	12.1	10.1	13.5		
mg/kg	V (vanadium)											
P C B ' S	ug/kg	Aroclor-1006	<31			< 1.44				< 5	<31	
	ug/kg	Aroclor-1221				< 1.44				< 5		
	ug/kg	Aroclor-1232				< 1.44				< 5		
	ug/kg	Aroclor-1242				< 1.44				< 5		
	ug/kg	Aroclor-1248	<31			< 1.44				< 5	<31	
	ug/kg	Aroclor-1254	<31			< 3				< 5	<31	
	ug/kg	Aroclor-1260	<31			< 3				< 5	<31	
	ug/kg	Total PCB's		0	0		14	0				
P A R T I C L E S I Z E % F I N E R	D I S T R I B U T I O N	C O O R S	3 in		100	100		100	100			
			1 1/2		100	100		100	100			
			3/4		100	100		100	100			
			3/8		100	100		99	100			
			4	100	100	100	99.7	99	100	100		
			8					99	100			
			10	99.22	100	100	97.9	99		98.3	100	99.81
			16				88.9	98.0	100			
			18							95		
			20	93.42	100.0	100.0		98.0			98.5	94.69
	30				45.4	98.0						
	40	47.54	96.0	93.0		98.0	88.0		78.5	57.75		
	50				45.4	97.0		29.8				
	60	6.92								13.42		
	70					97.0		4.4				
80	1				97.0				2			
100	0.52	11.0	18.0	5.3	96.0	2.0	0.4	1.8	1.2			
140				0.2	96.0		0.1	0.6				
P A R T I C L E S I Z E % F I N E R	F I L T R A T I O N	200	0.16	2.0	3.0		87.0	0.0	0.1	0.4	0.79	
		270					69.0					
		0.20 mm		2.0	2.0		40.0	0.0				
		0.05 mm		0.0	0.0		27.0	0.0				
M I S C	%	Total Organic Car	<1200			0.088		0.02	0.027	<1200		
	mg/kg	Chem Oxy Demand		1400	1900		41600	1397				
	mg/kg	Kjedahl Nitrogen	67	500	300		2300	109		53		
	mg/kg	Total Phosph	150	180	160		14000	142		170		
	mg/kg	Oil and Grease		0	0		36000	530				
	mg/kg	Cyanide, Total	<0.44			< 0.62		<0.10	< 0.06	<0.43		
	mg/kg	Ammonia	<0.75			0.87				<0.74		
	mg/l	Ammonia Elutriate							< 0.06			
	%	Moisture	19.6			19.8		23	22.7	18.7		
	%	Total Solids	80.4			80.2		77	77.3	81.3		
%	Volatile Solids	0.0037			0.6		0.34	0.76	0.003			

Table 7. Contaminant Data for Pool 5 of the Upper Mississippi River

Record #			181	709	710	182	183	184	185	186	
River Mile			743.1	743	742.8	742.4	741.82	741.81	741.8	741.51	741.5
Location			SOMERFIEL D - STAT LAB	SOMERFIEL D ISLAND	R-Lower Weaver Bottoms	Is N&W Spring Lk.	MOUNT VERNON LIGHT	MOUNT VERNON LIGHT	MOUNT VERNON LIGHT	MOUNT VERNON LIGHT	MOUNT VERNON LIGHT
Year			2008	1980	1985	1985	1978	1978	1978	1979	1979
System			<1.9	1	1	1	1	1	1	1	1
Habitat Type			<1.9	1	3	3	1	1	1	1	1
Pool			<1.9	5	5	5	5	5	5	5	5
Sam. Gear			<1.9	1	2	2	1	1	1	1	1
Sam. Depth			<1.9	10	10	10	10	10	10	10	10
Data Cit.			<1.9	COE	FWS	FWS	COE	COE	COE	COE	COE
C H C L S	ug/kg	a-BHC	<1.9		< 10	< 10					
	ug/kg	b-BHC	<1.9		< 10	< 10					
	ug/kg	BHC	<1.9								
	ug/kg	g-BHC (lindane)	<1.9		< 10	< 10					
	ug/kg	Heptachlor	<1.9		< 10	< 10					
	ug/kg	Aldrin	<1.9								
	ug/kg	Heptachlorepoide	<1.9								
	ug/kg	Endosulfan I	<1.9								
	ug/kg	Dieldrin	<1.9	< 0.2	< 10	< 10	0	0	0	0	0
	ug/kg	4,4'-DDE	<1.9	< 0.2	< 10	< 10	0	0	0	0	0
	ug/kg	Endrin	<1.9	< 0.2	< 10	< 10	0	0	0	0	0
	ug/kg	Endosulfan II	<1.9								
	ug/kg	4,4'-DDD	<1.9	< 0.2	< 10	< 10	0	0	0	0	0
	ug/kg	Endrinaldehyde	<1.9								
	ug/kg	Sulfan sulfat	<1.9								
ug/kg	4,4'-DDT	<1.9	< 0.4	< 10	< 10	0	0	0	0	0	
ug/kg	Methoxychlor	<1.9									
ug/kg	Endrinetone	<1.9									
ug/kg	Chlorodane	<40	< 0.4	< 10	< 10	0	0	0	0	0	
ug/kg	Toxaphene	<40									
M E T A L S	mg/kg	Ag (silver)		< 0.4	< 0.4						
	mg/kg	Al (aluminum)		9020	10500						
	mg/kg	As (arsenic)	<1.2	< 7	< 7	0		0	0	0	0
	mg/kg	B (boron)		4	5						
	mg/kg	Ba (barium)		148	139	10		30	30	40	
	mg/kg	Be (beryllium)		0.62	0.57						
	mg/kg	Cd (cadmium)	<0.59	1.43	< 0.3	0.6	< 10		< 10	< 10	< 10
	mg/kg	Cr (chromium)	4.3	28	19	29	< 10		< 10	< 10	< 10
	mg/kg	Cu (copper)	<3	4.48	11	22	< 10		< 10	< 10	< 10
	mg/kg	Fe (iron)		14100	21800	21800	1800		3200	3900	2800
	mg/kg	Hg (mercury)	<0.03	< 0.01	0.05	0.05	0		0.75	0	0
	mg/kg	Mg (magnesium)			4140	4390					
	mg/kg	Mn (manganese)	320		< 1020	< 825	170		270	290	200
	mg/kg	Mo (molybdenum)			3	2					
	mg/kg	Ni (nickel)	5	22.6	18	20			< 10	< 10	< 10
mg/kg	Pb (lead)	1.7	0.12	14	21	< 10		< 10	< 10	< 10	
mg/kg	Sb (antimony)			< 4	< 4						
mg/kg	Se (selenium)			< 10	< 10						
mg/kg	Sn (tin)			< 2	< 2						
mg/kg	Sr (strontium)			26.9	28.5						
mg/kg	Ti (titanium)			20	20						
mg/kg	Zn (zinc)	13	75.4	61.5	83.2	4		< 10	10	10	
mg/kg	V (vanadium)			< 12	< 23						
P C B ' S	ug/kg	Aroclor-1006	<96								
	ug/kg	Aroclor-1221									
	ug/kg	Aroclor-1232									
	ug/kg	Aroclor-1242									
	ug/kg	Aroclor-1248	<96								
	ug/kg	Aroclor-1254	<96								
	ug/kg	Aroclor-1260	<96								
	ug/kg	Total PCB's		0	0	0	0	0	6	0	3
P A R T I C L E	S I Z E	D I S T R I B U T I O N	3 in	100			100	100	100	100	100
			1 1/2	100			100	100	100	100	100
			3/4	100			100	100	100	100	100
			3/8	100			98	100	100	100	100
			4	100			97	100	97	100	100
			8	99							
			10	99.5			97	100	93	97	96
			16		94.0						
			18								
			20	92.5			94.0	95.0	80.0	89.0	78.0
	30										
	40	51	62.0		72.0	64.0	41.0	69.0	33.0		
	50										
	60	10.3									
	70										
80				5.0	4.0	10.0	10.0	3.0			
100		7.0									
140	0.1										
F I L T R A T I O N	200		4.0			1.0	1.0	8.0	5.0	2.0	
	270										
	0.20 mm		0.0			0.0	0.0	2.0	1.0	2.0	
	0.05 mm		0.0			0.0	0.0	0.0	0.0	1.0	
M I S C	%	Total Organic Car	1100								
	mg/kg	Chem Oxy Demand		1170		2000		8100	7300	2100	
	mg/kg	Kjedahl Nitrogen	<94			490		1000	2100	300	
	mg/kg	Total Phosph	123	684		150		100	200	220	
	mg/kg	Oil and Grease		180		0	0	0	0	0	
	mg/kg	Cyanide, Total	<0.3								
	mg/kg	Ammonia	<3								
	mg/l	Ammonia Elutriate									
	%	Moisture	17.00								
	%	Total Solids	83.0								
%	Volatile Solids	<0.01									