

Table 12. Contaminant Data for Pool 9 of the Upper Mississippi River

Record #		505	270	271	272	273	506	732	730	274	
River Mile		678.3	677.91	677.9	677.8	677.6	677.5	677	676.7	676.4	
Location		ISLAND 126	ISLAND 126	ISLAND 126	ISLAND 126	ISLAND 126	ISLAND 126	R-N of Millstone Landing	Sandpt Dwn Dairy PP	TWIN ISLAND	
Year		1989	1978	1978	1982	1982	1989	1985	1985	1980	
System		1	1	1	1	1	1	1	1	1	
Habitat Type		1	1	1	1	1	1	3	3	1	
Pool		9	9	9	9	9	9	9	9	9	
Sam. Gear		1	1	1	1	1	1	2	2	1	
Sam. Depth		10	10	10	10	10	10	10	10	10	
Data Cit.		COE	COE	COE	COE	COE	COE	FWS	FWS	COE	
C H C ' S	ug/kg	a-BHC	< 0.07				< 0.07	< 10	< 10		
	ug/kg	b-BHC	< 0.14				< 0.14	< 10	< 10		
	ug/kg	BHC	< 0.21				< 0.22				
	ug/kg	g-BHC (lindane)	< 0.1				< 0.1	< 10	< 10		
	ug/kg	Heptachlor	< 0.07				< 0.07	< 10	< 10		
	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	0	< 0.1	< 0.1	< 0.12	< 10	< 10	0
	ug/kg	4,4'-DDE	< 0.1	0	0	< 0.1	< 0.1	< 0.1	< 10	< 10	0
	ug/kg	Endrin	< 0.21	0	0	< 0.1	< 0.1	< 0.22	< 10	< 10	0
	ug/kg	Endosulfan II	< 0.24					< 0.24			
	ug/kg	4,4'-DDD	< 0.26	0	0	< 0.1	< 0.1	< 0.26	< 10	< 10	0
	ug/kg	Endrinaldehyde	< 0.26					< 0.26			
	ug/kg	Sulfan sulfate	< 0.26					< 0.26			
	ug/kg	4,4'-DDT	< 0.31	0	0	< 0.1	< 0.1	< 0.31	< 10	< 10	0
	ug/kg	Methoxychlor	< 0.52					< 0.53			
	ug/kg	Endrinetone	< 0.26					< 0.26			
ug/kg	Chlorodane	< 1.43	0	0	< 1	< 1	< 1.44	< 10	< 10	0	
ug/kg	Toxaphene	< 1.43					< 1.44				
M E T A L S	mg/kg	Ag (silver)						< 0.4	< 0.4		
	mg/kg	Al (aluminum)						7200	4720		
	mg/kg	As (arsenic)	< 1.01	0	0	1.5	1.2	< 1.01	< 6	< 6	0
	mg/kg	B (boron)						14	< 4		
	mg/kg	Ba (barium)		20	10			123	81.1	10	
	mg/kg	Be (beryllium)						0.54	0.36		
	mg/kg	Cd (cadmium)	< 1.11	< 10	< 10	< 0.2	< 0.19	< 1.1	< 0.3	< 0.3	< 10
	mg/kg	Cr (chromium)	3.9	< 10	30	3	2.8	2.8	15	14	< 10
	mg/kg	Cu (copper)	< 1.44	< 10	< 10	2	1.9	< 1.44	14	9.4	< 10
	mg/kg	Fe (iron)		1600	2000	4500	4300		16700	11400	1600
	mg/kg	Hg (mercury)	< 0.01	0	0	0.017	0.021	< 0.01	0.08	0.05	0
	mg/kg	Mg (magnesium)							5630	4970	
	mg/kg	Mn (manganese)	217	12	22			190	< 871	< 665	130
	mg/kg	Mo (molybdenum)							2	2	
	mg/kg	Ni (nickel)	6.3	< 10	< 10	5	5	5.9	14	10	< 10
	mg/kg	Pb (lead)	< 0.82	< 10	< 10	2	2	< 0.82	17	9.9	< 10
	mg/kg	Sb (antimony)							< 4	< 4	
	mg/kg	Se (selenium)	< 0.84					< 0.84	< 10	< 10	
mg/kg	Sn (tin)							< 2	< 2		
mg/kg	Sr (strontium)							18.2	15		
mg/kg	Ti (titanium)							20	20		
mg/kg	Zn (zinc)	10.7	< 10	< 10	9	8	8.6	63.2	42.2	6.7	
mg/kg	V (vanadium)							< 12	< 9.2		
P C B ' S	ug/kg	Aroclor-1006						< 1.44			
	ug/kg	Aroclor-1221						< 1.44			
	ug/kg	Aroclor-1232						< 1.44			
	ug/kg	Aroclor-1242						< 1.44			
	ug/kg	Aroclor-1248						< 1.44			
	ug/kg	Aroclor-1254						< 3			
	ug/kg	Aroclor-1260						< 3			
	ug/kg	Total PCB's		0	0	0	0		0	0	0
F I N E S I Z E S	D	c o a r s e	3 in		100	100					100
			1 1/2		100	100	100	100			100
			3/4		100	100	100	100			100
			3/8		100	100	100	100			100
			4	98.2	100	100	98	100	100		100
			8				96	99			100
	S	m e d i u m	16	85.5			93.0	97.0	98.2		99.0
			18								
			20		100	93.0					
			30	49.6			71.0	53.0	74.4		
			40		100	52.0	45.0	26.0			82.0
			50	49.6			16.0	5.0	74.4		
	F	f i n e	60								
			70				3.0	2.0			
			80	2.5	89.0	3.0			9.1		
			100	0.0			1.0	1.0	0.3		0.0
			140								
			200		8.0	1.0	1.0	1.0			0.0
P A R T I C L E S	C L A	230									
		270				1.0	1.0				
		0.20 mm		0.0	0.0	0.0	1.0			0.0	
		0.05 mm		0.0	0.0	0.0	0.0			0.0	
M I S C	%	Total Organic Car	0.019					0.021			
	mg/kg	Chem Oxy Demand		1300	2000	1470	882			1400	
	mg/kg	Kjedahl Nitrogen		190	420	59	35			70	
	mg/kg	Total Phosph		110	380	98	117				
	mg/kg	Oil and Grease									
	mg/kg	Cyanide, Total	< 0.62					< 0.6			
	mg/kg	Ammonia	< 0.24					0.2			
	mg/l	Ammonia Elutriate									
	%	Moisture	19.3					16.8			
	%	Total Solids	80.7					83.2			
%	Volatile Solids	0.4					0.3				

Table 12. Contaminant Data for Pool 9 of the Upper Mississippi River

Record #		507	275	508	276	503	277	278	504		
River Mile		676.2	675.6	675.5	671.8	671.8	671.5	671.44	671.2	671.2	
Location		TWIN ISLAND	BELOW TWIN ISLAND	TWIN ISLAND	HEAD OF BATTLE IS.	HEAD OF BATTLE IS.	BATTLE ISLAND POOL 8	HEAD OF BATTLE IS.	HEAD OF BATTLE IS.	HEAD OF BATTLE IS.	
Year		1989	1980	1989	1981	1989	2002	1974	1981	1989	
System		1	1	1	1	1	1	1	1	1	
Habitat Type		1	1	1	1	1	1	1	1	1	
Pool		9	9	9	9	9	9	9	9	9	
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	< 0.07	< 0.12	< 0.12	< 0.12	< 0.07		
	ug/kg	b-BHC	< 0.15	< 0.15	< 0.15	< 0.12	< 0.12	< 0.14			
	ug/kg	BHC	< 0.22	< 0.22	< 0.22	< 0.12	< 0.12	< 0.21			
	ug/kg	g-BHC (lindane)	< 0.1	< 0.1	< 0.1	< 0.12	< 0.12	< 0.1			
	ug/kg	Heptachlor	< 0.07	< 0.07	< 0.12	< 0.08	< 0.07				
	ug/kg	Aldrin	< 0.1	< 0.1	< 0.12	< 0.12	< 0.1				
	ug/kg	Heptachlorepoxi	< 0.12	< 0.12	< 0.12	< 1.48	< 0.12				
	ug/kg	Endosulfan I	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12				
	ug/kg	Dieldrin	< 0.12	< 0.12	< 0.1	< 0.12	< 0.12	< 10	< 0.1	< 0.12	
	ug/kg	4,4'-DDE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.12	< 10	< 0.1	< 0.1	
	ug/kg	Endrin	< 0.22	< 0.22	< 0.1	< 0.22	< 0.12	< 10	< 0.1	< 0.21	
	ug/kg	Endosulfan II	< 0.25	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24			
	ug/kg	4,4'-DDD	< 0.27	< 0.27	< 0.1	< 0.27	< 0.12	< 10	< 0.1	< 0.26	
	ug/kg	Endrinaldehyde	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27			
	ug/kg	Sulfan sulfate	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27			
	ug/kg	4,4'-DDT	< 0.32	< 0.32	< 0.1	< 0.31	< 0.24	< 10	< 0.1	< 0.31	
ug/kg	Methoxychlor	< 0.54	< 0.54	< 0.54	< 0.53	< 0.53	< 0.53				
ug/kg	Endrinetone	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27				
ug/kg	Chlorodane	< 1.48	< 1.46	< 1	< 1.45	< 0.36	< 10	< 1	< 1.43		
ug/kg	Toxaphene	< 1.48	< 1.46	< 1.46	< 1.45	< 1.45	< 1.45				
M E T A L S	mg/kg	Ag (silver)									
	mg/kg	Al (aluminum)									
	mg/kg	As (arsenic)	< 1.03	0	< 1.01	2	< 0.96	0.89	< 0.9	2	< 1.02
	mg/kg	B (boron)									
	mg/kg	Ba (barium)		20		30				20	
	mg/kg	Be (beryllium)									
	mg/kg	Cd (cadmium)	< 1.13	< 10	< 1.1	< 1	< 1.06	0.1	0.9	< 1	< 1.11
	mg/kg	Cr (chromium)	2.2	< 10	2.7	< 10	2.9	3.1	14	10	2.5
	mg/kg	Cu (copper)	< 1.48	< 10	< 1.44	< 10	< 1.18	2.13	4	< 10	< 1.45
	mg/kg	Fe (iron)		1900		750				1600	
	mg/kg	Hg (mercury)	< 0.01	0	< 0.01	< 0.01	< 0.01	< 0.006	0.1	< 0.01	< 0.01
	mg/kg	Mg (magnesium)									
	mg/kg	Mn (manganese)	137	140	259	210	366	381		240	306
	mg/kg	Mo (molybdenum)									
	mg/kg	Ni (nickel)	< 5.64	< 10	< 5.49	< 10	6.6	5.29	7	< 10	< 5.55
	mg/kg	Pb (lead)	1.2	< 10	1.1	< 10	< 0.78	1.47	< 9	< 10	< 0.82
mg/kg	Sb (antimony)										
mg/kg	Se (selenium)	< 0.86		< 0.84		< 0.8				< 0.85	
mg/kg	Sn (tin)										
mg/kg	Sr (strontium)										
mg/kg	Ti (titanium)										
mg/kg	Zn (zinc)	7.5	16	8.8	3	9.9	10.8	15	7	9.1	
mg/kg	V (vanadium)										
P C B ' S	ug/kg	Aroclor-1006	< 1.48	< 1.46	< 1.45	< 1.45	< 1.45	< 1.45	< 1.43		
	ug/kg	Aroclor-1221	< 1.48	< 1.46	< 1.45	< 1.45	< 1.45	< 1.45	< 1.43		
	ug/kg	Aroclor-1232	< 1.48	< 1.46	< 1.45	< 1.45	< 1.45	< 1.45	< 1.43		
	ug/kg	Aroclor-1242	< 1.48	< 1.46	< 1.45	< 1.45	< 1.45	< 1.45	< 1.43		
	ug/kg	Aroclor-1248	< 1.48	< 1.46	< 1.45	< 1.45	< 1.45	< 1.45	< 1.43		
	ug/kg	Aroclor-1254	< 3.08	< 3.05	< 3.03	< 3.03	< 3.03	< 3.03	< 2.98		
	ug/kg	Aroclor-1260	< 3.08	< 3.05	< 3.03	< 3.03	< 3.03	< 3.03	< 2.98		
	ug/kg	Total PCB's		0		0		0		0	
S I Z E	D	c o a r s e	3 in		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	100	99	100	100
			8		100		100		95	100	
			10	100.0		99.4		99.9	99.1		99.1
			16	99.9	100	95.7	96.0	97.0	91.4	82.0	100
	S	m e d i u m	18								
			20								
			30	93.5		54.8	61.0	59.6		91.0	64.3
			40		70.0		35.0		19.0	71.0	
			50	93.5		54.8	10.0	59.6	10.7	23.0	64.3
			60								
			70				2.0		2.2		5.0
			80	22.1		6.1	0.0	5.7			7.1
100	0.2	0.0	0.1	0.0	0.3	0.2	0.0	0.0	0.4		
140					0.0	0.1					
P A R	S I L	C L A	200			0.0		0.1	0.0	0.0	
			230								
			270				0.0			0.0	
			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	0.036		0.019		0.027	0.02		0.032	
	mg/kg	Chem Oxy Demand		1200		1700		2903	1100		
	mg/kg	Kjedahl Nitrogen		170		1600		134	524		
	mg/kg	Total Phosph					126				
	mg/kg	Oil and Grease									
	mg/kg	Cyanide, Total	< 0.63	< 0.63	< 0.62	< 0.10	< 0.62				
	mg/kg	Ammonia	< 0.25	0.3	< 0.25	< 0.25	< 0.25				
	mg/l	Ammonia Elutriate									
	%	Moisture	21.1	20	19.6	20.2	18.8				
	%	Total Solids	78.9	80	80.4	79.8	81.2				
%	Volatile Solids	0.4	0.5	0.5	0.69	0.4					

Table 12. Contaminant Data for Pool 9 of the Upper Mississippi River

Record #		731	604	605	606	733	497	279	280		
River Mile		671.1	671	671	671	671	666.0	665.8	665.7	665.7	
Location		BATTLE ISLAND - CT LABS	R-R Desc Bnk Iowa R Chan	L- Blackhawk Ab.Rd.	L- Blackhawk Bw. Rd.	L-Cold Springs South	R-Bkwtr W Lansing Big Lk	INDIAN CAMP LIGHT	INDIAN CAMP LIGHT	INDIAN CAMP LIGHT	
Year		2008	1985	1986	1987	1987	1985	1989	1982	1982	
System		1	1	1	1	1	1	1	1	1	
Habitat Type		1	3	3	3	3	3	1	1	1	
Pool		9	9	9	9	9	9	9	9	9	
Sam. Gear			2	3	3	3	2	1	1	1	
Sam. Depth		10	10	60	76	45	10	10	10	10	
Data Cit.		COE	FWS	WDNR	WDNR	WDNR	FWS	COE	COE	COE	
C H C ' S	ug/kg	a-BHC	< 10		< 10		< 0.07				
	ug/kg	b-BHC	< 10		< 10		< 0.14				
	ug/kg	BHC	< 10		< 10		< 0.21				
	ug/kg	g-BHC (lindane)	< 10		< 10		< 0.09				
	ug/kg	Heptachlor	< 10		< 10	< 10	< 0.07				
	ug/kg	Aldrin	< 10		< 10		< 0.09				
	ug/kg	Heptachlorepoxi	< 10		< 10		< 0.12				
	ug/kg	Endosulfan I	< 10		< 10		< 0.12				
	ug/kg	Dieldrin	<3.2	< 10	< 10	< 10	< 10	< 0.12	< 0.1	< 0.1	
	ug/kg	4,4'-DDE	<3.5	< 10	< 10	< 10	< 10	< 0.09	< 0.1	< 0.1	
	ug/kg	Endrin	< 10		< 10		< 0.21	< 0.1	< 0.1		
	ug/kg	Endosulfan II	< 10		< 10		< 0.23				
	ug/kg	4,4'-DDD	<3.7	< 10	< 10		< 0.26	< 0.1	< 0.1		
	ug/kg	Endrinaldehyde	< 10		< 10		< 0.26				
	ug/kg	Sulfan sulfate	< 10		< 10		< 0.26				
ug/kg	4,4'-DDT	<4.2	< 10	< 10		< 0.3	< 0.1	< 0.1			
ug/kg	Methoxychlor	< 10		< 10		< 0.51					
ug/kg	Endrinetone	< 10		< 10		< 0.26					
ug/kg	Chlorodane	< 10		< 10	< 10	< 1.4	< 1	< 1			
ug/kg	Toxaphene	< 10		< 10		< 1.4					
M E T A L S	mg/kg	Ag (silver)	< 0.4		< 0.4						
	mg/kg	Al (aluminum)	13100		10000		11700				
	mg/kg	As (arsenic)	1	< 7	5	9.6	2.4	< 7	< 0.97	1.3	0.67
	mg/kg	B (boron)	10		16						
	mg/kg	Ba (barium)	199		167						
	mg/kg	Be (beryllium)	0.79		0.77						
	mg/kg	Cd (cadmium)	<1.0	< 0.3	< 1	< 1	< 1	< 0.3	< 1.06	< 0.17	< 0.19
	mg/kg	Cr (chromium)	4.1	18	43	28	10	22	2.1	2.6	1.9
	mg/kg	Cu (copper)	1.5	17	14	23	7	18	< 1.39	1.7	0.9
	mg/kg	Fe (iron)	19300		21000		3800		2400		
	mg/kg	Hg (mercury)	<0.10	0.05	< 0.1	0.05		< 0.01	0.018	0.013	
	mg/kg	Mg (magnesium)	5870		5000						
	mg/kg	Mn (manganese)	500	< 1300	890		180	< 1270	281		
	mg/kg	Mo (molybdenum)	2		2						
	mg/kg	Ni (nickel)	4.1	21	10	33	10	21	< 5.3	3	3
mg/kg	Pb (lead)	<1.0	23	10	14	< 5	19	1.3	2	2	
mg/kg	Sb (antimony)	< 4		< 4							
mg/kg	Se (selenium)	< 10		< 10		< 0.81					
mg/kg	Sn (tin)	< 2		< 2							
mg/kg	Sr (strontium)	34.2		28.9							
mg/kg	Ti (titanium)	20		20							
mg/kg	Zn (zinc)	10.6	102	67	120	34	84.9	8.5	9	2	
mg/kg	V (vanadium)	< 20		< 13							
P C B ' S	ug/kg	Aroclor-1006	<31		< 1.4						
	ug/kg	Aroclor-1221	< 1.4		< 1.4						
	ug/kg	Aroclor-1232	< 1.4		< 1.4						
	ug/kg	Aroclor-1242	< 1.4		< 1.4						
	ug/kg	Aroclor-1248	<29	< 1.4	< 1.4						
	ug/kg	Aroclor-1254	<10	< 2.93	< 2.93						
	ug/kg	Aroclor-1260	<19	< 2.93	< 2.93						
	ug/kg	Total PCB's	0	90	0	0	0	0	0	0	
S I Z E F I N E S S	D	c o a r s e	3 in					100		100	
			1 1/2					100		100	
			3/4					100		100	
			3/8					100		100	
			4	79.86					98.7	100	100
	A	m e d i u m	8					99		100	
			10	79.62					94.1	100	
			16					84.0	97.0	100	
			18								
			20	78.8							
	S	f i n e	30					50.3	86.0	97.0	
			40	75.33					66.0	89.0	
			50					50.3	24.0	59.0	
			60	72.34							
			70					5.0		14.0	
F	C L A	80					4.6				
		100	70.59					0.1	2.0		
		140	69.69								
		200					2.0		1.0		
		230									
S I C L A		270					2.0		1.0		
		0.20 mm					1.0		0.0		
		0.05 mm					0.0		0.0		
M I S C	%	Total Organic Car	<1300		0.016						
	mg/kg	Chem Oxy Demand					964		680		
	mg/kg	Kjedahl Nitrogen	52					130		40	
	mg/kg	Total Phosph	160					110		73	
	mg/kg	Oil and Grease									
	mg/kg	Cyanide, Total	0.82		< 0.58						
	mg/kg	Ammonia	<0.75		< 0.23						
	mg/l	Ammonia Elutriate									
	%	Moisture	20		13.3						
	%	Total Solids	80		86.7						
%	Volatile Solids	0.0031		0.4							

Table 12. Contaminant Data for Pool 9 of the Upper Mississippi River

Record #		281	282	496	498	283	499	284	285	286		
River Mile		665.4	665.4	665.2	665.2	664.8	664.7	664.4	664.3	664.3		
Location		INDIAN CAMP LIGHT	INDIAN CAMP LIGHT	Indian Camp Light	INDIAN CAMP LIGHT	LANSING UPPER LIGHT	LANSING UPPER LIGHT	LANSING UPPER LIGHT	LANSING UPPER LIGHT	LANSING UPPER LIGHT		
Year		1978	1978	1989	1989	1981	1989	1974	1978	1978		
System		1	1	1	1	1	1	1	1	1		
Habitat Type		1	1	1	1	1	1	1	1	1		
Pool		9	9	9	9	9	9	9	9	9		
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		< 0.14					
	ug/kg	BHC			< 0.22		< 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	Heptachlorepoxi			< 0.12		< 0.12					
	ug/kg	Endosulfan I			< 0.12		< 0.12					
	ug/kg	Dieldrin		0	< 0.12	< 0.1	< 0.12	< 10	< 0.1	0		
	ug/kg	4,4'-DDE		0	< 0.1	< 0.1	< 0.1	< 10	< 0.1	0		
	ug/kg	Endrin		0	< 0.22	< 0.1	< 0.22	< 10	< 0.1	0		
	ug/kg	Endosulfan II			< 0.24		< 0.24					
	ug/kg	4,4'-DDD		0	< 0.26	< 0.1	< 0.26	< 10	< 0.1	0		
	ug/kg	Endrinaldehyde			< 0.26		< 0.26					
	ug/kg	Sulfan sulfate			< 0.26		< 0.26					
ug/kg	4,4'-DDT		0	< 0.31	< 0.1	< 0.31	< 10	< 0.1	0			
ug/kg	Methoxychlor			< 0.53		< 0.53						
ug/kg	Endrinetone			< 0.26		< 0.26						
ug/kg	Chlorodane		0	< 1.44	< 1	< 1.44	< 10	< 1	0			
ug/kg	Toxaphene			< 1.44		< 1.44						
M E T A L S	mg/kg	Ag (silver)										
	mg/kg	Al (aluminum)										
	mg/kg	As (arsenic)	1	0	< 0.72		2	< 0.97	< 0.7	0		
	mg/kg	B (boron)										
	mg/kg	Ba (barium)	10	10			50			40		
	mg/kg	Be (beryllium)										
	mg/kg	Cd (cadmium)	< 10	< 10	< 1.08	< 1	< 1.06	0.9		< 10		
	mg/kg	Cr (chromium)	< 10	< 10	2.28	< 10	2.3	2		< 10		
	mg/kg	Cu (copper)	< 10	< 10	< 1.4	< 10	< 1.39	4		< 10		
	mg/kg	Fe (iron)	1900	1800			2500			2300		
	mg/kg	Hg (mercury)	0.04	0	< 0.01	< 0.01	< 0.01	0.5		0		
	mg/kg	Mg (magnesium)										
	mg/kg	Mn (manganese)	240	260		231	500	215		470		
	mg/kg	Mo (molybdenum)										
	mg/kg	Ni (nickel)	< 100	< 100	< 5.34	< 10	< 5.29	4		< 100		
mg/kg	Pb (lead)	20	20		0.8	< 10	0.9	9	20			
mg/kg	Sb (antimony)											
mg/kg	Se (selenium)			< 0.82		< 0.81						
mg/kg	Sn (tin)											
mg/kg	Sr (strontium)											
mg/kg	Ti (titanium)											
mg/kg	Zn (zinc)	< 10	< 10		9.1	11	7.5	12	< 10			
mg/kg	V (vanadium)											
P C B ' S	ug/kg	Aroclor-1006			< 1.44		< 1.44					
	ug/kg	Aroclor-1221			< 1.44		< 1.44					
	ug/kg	Aroclor-1232			< 1.44		< 1.44					
	ug/kg	Aroclor-1242			< 1.44		< 1.44					
	ug/kg	Aroclor-1248			< 1.44		< 1.44					
	ug/kg	Aroclor-1254			< 3		< 3					
	ug/kg	Aroclor-1260			< 3		< 3					
	ug/kg	Total PCB's	0	0			0		0	0		
S I Z E	% F I N E R	D	3 in	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	100	100	100	100	100	100	100		
			8				100	100	100	100		
			10	100	100	99.6		99	100	100		
			16			98.5	96.0	99.1	98.0			
			18									
			20	99.0	97.0					100.0	97.0	
	S	A	S	30			86.2	80.0	76.5			
				40	84.0	66.0		65.0		62.0	94.0	78.0
				50			86.2	33.0	76.5			
				60								
				70				6.0				
F I N E	Y	F	80	5.0	2.0	17.2		13.9		20.0	6.0	
			100			0.1	0.0	0.6	0.0			
			140					0.0				
			200	1.0	0.0		0.0		0.0	3.0	1.0	
			230									
S I L	C L A	S	270				0.0					
			0.20 mm	0.0	0.0		0.0		0.0	1.0	0.0	
			0.05 mm	0.0	0.0		0.0		0.0	0.0	0.0	
M I S C	%	Total Organic Car			0.084		0.061					
	mg/kg	Chem Oxy Demand	2700	120		1900		3488		2400		
	mg/kg	Kjedahl Nitrogen	22	66		299		147		40		
	mg/kg	Total Phosph	170	18				95		14		
	mg/kg	Oil and Grease										
	mg/kg	Cyanide, Total			< 0.58		< 0.61					
	mg/kg	Ammonia			< 0.23		0.4					
	mg/l	Ammonia Elutriate										
	%	Moisture			14.2		17.5					
	%	Total Solids			85.8		82.5					
%	Volatile Solids			0.4		0.5						

Table 12. Contaminant Data for Pool 9 of the Upper Mississippi River

Record #		287	500	734	735	736					
River Mile		664.3	664.1	664.1	663.9	663.6	663.5	661.7	659.6	657.6	
Location		LANSING UPPER LIGHT	LANSING UPPER LIGHT	LANSING UPPER LIGHT	LANSING UPPER LIGHT	LANSING SBH - CT LABS	LANSING SBH	L-Veg in Bay @ Lwr End Is	Sunk Barge DwnPP	L-Bh One of Many Sm Isls	
Year		2002	1981	1989	2008	2008	2002	1985	1985	1985	
System		1	1	1	1	1	1	1	1	1	
Habitat Type		1	1	1	1	2	2	3	3	3	
Pool		9	9	9	9	9	9	9	9	9	
Sam. Gear		1	1	1			1	2	2	2	
Sam. Depth			10	10	10	10		10	10	10	
Data Cit.		COE	COE	COE	COE	COE	COE	FWS	FWS	FWS	
C H C L S	ug/kg	a-BHC	<0.12	< 0.07			<0.12	< 10	< 10	< 10	
	ug/kg	b-BHC	<0.12	< 0.14			<0.12	< 10	< 10	< 10	
	ug/kg	BHC	0.6	< 0.22			<0.12				
	ug/kg	g-BHC (lindane)	<0.12	< 0.1			<0.12	< 10	< 10	< 10	
	ug/kg	Heptachlor	<0.08	< 0.07			<0.08	< 10	< 10	< 10	
	ug/kg	Aldrin		< 0.1							
	ug/kg	Heptachlorepoxi	<1.48	< 0.12			<1.48				
	ug/kg	Endosulfan I		< 0.12							
	ug/kg	Dieldrin	<0.12	< 0.1	< 0.12	<3.2	<3.2	<0.12	< 10	< 10	< 10
	ug/kg	4,4'-DDE	<0.12	< 0.1	< 0.1	<3.5	<3.5	<0.12	< 10	< 10	< 10
	ug/kg	Endrin	<0.12	< 0.1	< 0.22			<0.12	< 10	< 10	< 10
	ug/kg	Endosulfan II		< 0.24							
	ug/kg	4,4'-DDD	<0.12	< 0.1	< 0.26	<3.7	<3.7	<0.12	< 10	< 10	< 10
	ug/kg	Endrinaldehyde		< 0.26							
	ug/kg	Sulfan sulfate		< 0.26							
ug/kg	4,4'-DDT	<0.24	< 0.1	< 0.31	<4.2	<4.2	<0.24	< 10	< 10	< 10	
ug/kg	Methoxychlor		< 0.53								
ug/kg	Endrinetone		< 0.26								
ug/kg	Chlorodane	<0.36	< 1	< 1.44			<0.36	< 10	< 10	< 10	
ug/kg	Toxaphene		< 1.44								
M E T A L S	mg/kg	Ag (silver)						< 0.4	< 0.4	< 0.4	
	mg/kg	Al (aluminum)						9500	4920	5450	
	mg/kg	As (arsenic)	0.673	1	< 0.98	1.3	3.5	5.16	< 7	< 6	< 6
	mg/kg	B (boron)						10	10	14	
	mg/kg	Ba (barium)		20				128	83	85	
	mg/kg	Be (beryllium)						0.65	0.38	0.41	
	mg/kg	Cd (cadmium)	<0.08	< 1	< 1.08	<1.0	<1.0	1.36	0.6	< 0.3	0.4
	mg/kg	Cr (chromium)	2.81	< 10	2.1	4.1	21.6	30.7	23	11	12
	mg/kg	Cu (copper)	1.39	< 10	< 1.4	1.5	22.3	27.8	20	9.3	11
	mg/kg	Fe (iron)		2500				19300	10800	11700	
	mg/kg	Hg (mercury)	<0.006	< 0.01	< 0.01	<0.10	<0.10	<0.016	0.05	0.05	0.05
	mg/kg	Mg (magnesium)						4990	10200	3400	
	mg/kg	Mn (manganese)	184	220	167	344	1010	1040	< 599	< 803	< 399
	mg/kg	Mo (molybdenum)						2	2	2	
	mg/kg	Ni (nickel)	4.25	< 10	< 5.36	4.4	17.2	32.9	19	10	12
mg/kg	Pb (lead)	1.73	< 10	< 0.8	<1.0	<1.0	32.9	19	9.8	11	
mg/kg	Sb (antimony)						< 4	< 4	< 4		
mg/kg	Se (selenium)			< 0.82			< 10	< 10	< 10		
mg/kg	Sn (tin)						< 2	< 2	< 2		
mg/kg	Sr (strontium)						24.4	21.2	17.6		
mg/kg	Ti (titanium)						20	20	20		
mg/kg	Zn (zinc)	9.22	10	7.9	9.7	79	123	80.3	43	48.7	
mg/kg	V (vanadium)						< 15	< 9.1	< 11		
P C B S	ug/kg	Aroclor-1006		< 1.44	<31	<31					
	ug/kg	Aroclor-1221		< 1.44							
	ug/kg	Aroclor-1232		< 1.44							
	ug/kg	Aroclor-1242		< 1.44							
	ug/kg	Aroclor-1248		< 1.44	<29	<29					
	ug/kg	Aroclor-1254		< 3	<10	<10					
	ug/kg	Aroclor-1260		< 3	<19	<19					
	ug/kg	Total PCB's		0				0	0	0	
F I N E R S I Z E T I C L E P A R T I C L E S I Z E	D C O O R S E	3 in									
		1 1/2		100							
		3/4		100							
		3/8		100							
		4	100	100	99.6	100	100	100.0			
	8		100								
	10	99		99.3	98.19	98.09	100.0				
	A S S E S I M E N T	16		100.0	99.2						
		18	96.1					98.3			
		20				86.24	92.34				
		30		93.0	88.3						
		40		76.0		52.58	88.86				
	50	44.7	41.0	88.3			61.9				
	F I N E	60				15.07	86.74				
		70	10.1	15.0				51.8			
80				32.3	1.65	82.77					
100		0.5	2.0	0.6	1.24	81.57	42.8				
140		0.2		0.4			36.2				
P A R T I C L E S I Z E	200	0.2	1.0		0.9	71.62	29.8				
	230				0.85	61.72					
	270		0.0								
	0.20 mm		0.0								
0.05 mm		0.0									
M I S C	%	Total Organic Car	0.02	0.052	<1200	8300	2.1				
	mg/kg	Chem Oxy Demand		3000							
	mg/kg	Kjedahl Nitrogen		205	<27	2900					
	mg/kg	Total Phosph			<85	950					
	mg/kg	Oil and Grease									
	mg/kg	Cyanide, Total	<0.10	< 0.58	0.47	<1.0	0.22				
	mg/kg	Ammonia		0.5	<0.75	47					
	mg/l	Ammonia Elutriate									
	%	Moisture	20.4	13.7	19.7	65.2	70.6				
	%	Total Solids	79.6	86.3	80.3	34.8	29.4				
%	Volatile Solids	0.27	0.3	0.0039	0.085	8.99					

Table 12. Contaminant Data for Pool 9 of the Upper Mississippi River

Record #		361	359	358	360	502	357	501	609	356	
River Mile		655.5	655.5	655.5	655.5	655.1	655.0	654.8	653.8	653.8	
Location		Lower pool 9 - 9	Lower pool 9 - 5	Lower pool 9 - 3	Lower pool 9 - 7	AB CROOKED SLOUGH	Lower pool 9 - 1	AB CROOKED SLOUGH	Halfway Ck. Ab.RD.	L-Cold Springs North	
Year		1987	1987	1987	1987	1989	1987	1989	1984	1987	
System		1	1	1	1	1	1	1	1	1	
Habitat Type		3	3	3	3	1	1	1	3	3	
Pool		9	9	9	9	9	9	9	9	9	
Sam. Gear		1	1	1	1	1	1	1	3	4	
Sam. Depth						10	10	10	10	91	
Data Cit.		COE	COE	COE	COE	COE	COE	COE	WDNR	COE	
C H C ' S	ug/kg	a-BHC	< 5	< 5	< 5	< 5	< 0.07	< 5	< 0.1	< 5	
	ug/kg	b-BHC	< 5	< 5	< 5	< 5	< 0.14	< 5	< 0.19	< 5	
	ug/kg	BHC					< 0.22		< 0.29		
	ug/kg	g-BHC (lindane)	< 5	< 5	< 5	< 5	< 0.1	< 5	< 0.13	< 5	
	ug/kg	Heptachlor	< 5	< 5	< 5	< 5	< 0.07	< 5	< 0.1	< 5	
	ug/kg	Aldrin					< 0.1		< 0.13		
	ug/kg	Heptachlorepoxi					< 0.12		< 0.16		
	ug/kg	Endosulfan I					< 0.12		< 0.16		
	ug/kg	Dieldrin	< 5	< 5	< 5	< 5	< 0.12	< 5	< 0.16	< 5	
	ug/kg	4,4'-DDE	< 5	< 5	< 5	< 5	< 0.1	< 5	< 0.13	< 5	
	ug/kg	Endrin	< 5	< 5	< 5	< 5	< 0.22	< 5	< 0.29	< 5	
	ug/kg	Endosulfan II					< 0.24		< 0.32		
	ug/kg	4,4'-DDD	< 5	< 5	< 5	< 5	< 0.26	< 5	< 0.35	< 5	
	ug/kg	Endrinaldehyde					< 0.26		< 0.35		
	ug/kg	Sulfan sulfate					< 0.26		< 0.35		
	ug/kg	4,4'-DDT	< 5	< 5	< 5	< 5	< 0.31	< 5	< 0.42	< 5	
ug/kg	Methoxychlor					< 0.53		< 0.7			
ug/kg	Endrinetone					< 0.26		< 0.35			
ug/kg	Chlorodane	< 5	< 5	< 5	< 5	< 1.44	< 5	< 1.92	< 5		
ug/kg	Toxaphene					< 1.44		< 1.92			
M E T A L S	mg/kg	Ag (silver)									
	mg/kg	Al (aluminum)							17700		
	mg/kg	As (arsenic)	< 2.2	< 2.2	< 2.2	< 2.2	< 1.04	< 2.2	< 1.55	< 2.2	
	mg/kg	B (boron)									
	mg/kg	Ba (barium)									
	mg/kg	Be (beryllium)									
	mg/kg	Cd (cadmium)	< 3.1	< 3.1	5.8	5.8	< 1.13	5.8	< 1.7	< 1	< 3.1
	mg/kg	Cr (chromium)	20.2	9.6	20.2	20.2	2.4	9.6	8.1	48	20.2
	mg/kg	Cu (copper)	11.5	11.5	18.2	11.5	< 1.48	11.5	3.2	28	18.2
	mg/kg	Fe (iron)									
	mg/kg	Hg (mercury)	< 0.6	< 0.6	< 0.6	< 0.6	< 0.01	< 0.6	< 0.02	0.1	< 0.6
	mg/kg	Mg (magnesium)									
	mg/kg	Mn (manganese)	560.3	878.8	547.4	534.6	152	432.1	544		840.4
	mg/kg	Mo (molybdenum)									
	mg/kg	Ni (nickel)	54.5	< 25	54.5	< 25	< 5.6	< 25	9.3	31	54.5
	mg/kg	Pb (lead)	17.4	15.2	28.7	16	1.1	14.7	3.7	19	9.8
mg/kg	Sb (antimony)										
mg/kg	Se (selenium)					< 0.86		< 1.29			
mg/kg	Sn (tin)										
mg/kg	Sr (strontium)										
mg/kg	Ti (titanium)										
mg/kg	Zn (zinc)	67.1	56.9	86.7	74.7	8.9	23.7	30.6	110	87.5	
mg/kg	V (vanadium)										
P C B ' S	ug/kg	Aroclor-1006				< 1.44		< 1.92			
	ug/kg	Aroclor-1221				< 1.44		< 1.92			
	ug/kg	Aroclor-1232				< 1.44		< 1.92			
	ug/kg	Aroclor-1242				< 1.44		< 1.92			
	ug/kg	Aroclor-1248				< 1.44		< 1.92			
	ug/kg	Aroclor-1254				< 3		< 4			
	ug/kg	Aroclor-1260				< 3		< 4			
	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 a r s e	3 in								
			1 1/2								
			3/4								
			3/8								
			4				100		100		
			8								
			10				99.8		99.8		
			16				99.0		99.2		
	S	m e d i u m	18								
			20								
			30				90.6		98.0		
			40								
			50				90.6		98.0		
			60								
			70								
			80				51.2		89.8		
100				0.6		34.9					
140				0.4		28.9					
F I N E	f i n e	200				0.3		8.8			
		230									
		270				0.2		4.9			
		0.20 mm						3.4			
0.05 mm						3.7					
M I S C	%	Total Organic Car				0.016		2.47			
	mg/kg	Chem Oxy Demand									
	mg/kg	Kjedahl Nitrogen									
	mg/kg	Total Phosph									
	mg/kg	Oil and Grease									
	mg/kg	Cyanide, Total				< 0.59		< 0.83			
	mg/kg	Ammonia				1.5		15.00			
	mg/l	Ammonia Elutriate									
%	Moisture				14.7		40.0				
%	Total Solids				85.3		60.0				
%	Volatile Solids				0.8		3.2				

Table 12. Contaminant Data for Pool 9 of the Upper Mississippi River

Record #		607	608	737	288	
River Mile		653.8	653.8	652.5	651	
Location		L-Cold Springs South	L-Cold Springs South	R-Bh Isl Border Channel		
Year		1987	1987	1985	1974	
System		1	1	1	1	
Habitat Type		3	3	3	1	
Pool		9	9	9	9	
Sam. Gear		3	3	2	1	
Sam. Depth		45-91	91-152	10	10	
Data Cit.		WDNR	WDNR	FWS	COE	
C H C ' S	ug/kg	a-BHC		< 10		
	ug/kg	b-BHC		< 10		
	ug/kg	BHC				
	ug/kg	g-BHC (lindane)		< 10		
	ug/kg	Heptachlor	< 10	< 10		
	ug/kg	Aldrin				
	ug/kg	Heptachlorepoxi				
	ug/kg	Endosulfan I				
	ug/kg	Dieldrin	< 10	< 10	< 10	
	ug/kg	4,4'-DDE	< 10	< 10	< 10	
	ug/kg	Endrin		< 10	< 10	
	ug/kg	Endosulfan II				
	ug/kg	4,4'-DDD		< 10	< 10	
	ug/kg	Endrinaldehyde				
	ug/kg	Sulfan sulfate				
M E T A L S	mg/kg	Ag (silver)		< 0.4		
	mg/kg	Al (aluminum)		4890		
	mg/kg	As (arsenic)	2.1	9.9	< 6	< 0.8
	mg/kg	B (boron)			6	
	mg/kg	Ba (barium)			88.3	
	mg/kg	Be (beryllium)			0.47	
	mg/kg	Cd (cadmium)	< 1	< 1	< 0.3	0.9
	mg/kg	Cr (chromium)	9	25	11	11
	mg/kg	Cu (copper)	4	22	9.2	4
	mg/kg	Fe (iron)			11700	
	mg/kg	Hg (mercury)			0.05	0.2
	mg/kg	Mg (magnesium)			2580	
	mg/kg	Mn (manganese)	250	990	< 717	
	mg/kg	Mo (molybdenum)			2	
	mg/kg	Ni (nickel)	14	30	11	4
mg/kg	Pb (lead)	< 5	15	9.7	< 9	
mg/kg	Sb (antimony)			< 4		
mg/kg	Se (selenium)			< 10		
mg/kg	Sn (tin)			< 2		
mg/kg	Sr (strontium)			16.7		
mg/kg	Ti (titanium)			20		
mg/kg	Zn (zinc)	21	100	42.1	13	
mg/kg	V (vanadium)			< 6.4		
P C B ' S	ug/kg	Aroclor-1006				
	ug/kg	Aroclor-1221				
	ug/kg	Aroclor-1232				
	ug/kg	Aroclor-1242				
	ug/kg	Aroclor-1248				
	ug/kg	Aroclor-1254				
	ug/kg	Aroclor-1260				
	ug/kg	Total PCB's	0	0	0	0
P A R T I C L E S I Z E % F I N E R	S I Z E	D	3 in		100	
			1 1/2		100	
			3/4		100	
			3/8		100	
			4		100	
		S	8		100	
			10		100	
			16		99.0	
			18			
			20			
	F I N E	30				
		40		57.0		
		50				
		60				
		70				
P A R T I C L E S I Z E % F I N E R	S I Z E	80				
		100		4.0		
		140				
		200		3.0		
		230				
P A R T I C L E S I Z E % F I N E R	S I Z E	270				
		0.20 mm		0.0		
		0.05 mm		0.0		
M I S C	%	Total Organic Car				
	mg/kg	Chem Oxy Demand			5797	
	mg/kg	Kjedahl Nitrogen			160	
	mg/kg	Total Phosph			164	
	mg/kg	Oil and Grease				
	mg/kg	Cyanide, Total				
	mg/kg	Ammonia				
	mg/l	Ammonia Elutriate				
	%	Moisture				
	%	Total Solids				
%	Volatile Solids					