Table 7 Range of Concentrations in Subsurface Sediments, Buffalo River Sediment Study 2005

Analyte	Screening Criteria (1)	Screening Criteria (2)	Minimum Value	Maximum Value	Number of Positive Results	Number of Results Above Minimum Criteria
415.1_LK (mg/Kg)						
Total Organic Carbon	NA	*NA*	3500	89100	150	NA
6010B (mg/Kg)						
ARSENIC	7.5	*6*	3.2	357	150	145
BARIUM	300	*NA*	18	1690	150	3
CADMIUM	1	*0.6*	0.097	29.9	115	81
CHROMIUM	10	*26*	8	15800	150	148
COPPER	25	*16*	17.9	1780	150	150
IRON	2000	*20000*	12500	427000	150	150
LEAD	NA	*31*	10.9	8510	150	140
MANGANESE	NA	*460*	216	9250	150	123
NICKEL	13	*16*	12.7	175	150	149
SELENIUM	2	*NA*	0.41	20.3	90	17
SILVER	NA	*1*	0.22	9	87	9
ZINC	20	*120*	56.1	4850	150	150
MERCURY	0.1	*0.15*	0.036	31.8	145	110
8081A (ug/Kg)						
2,4'-DDD	NA	*0.22*	6	62	10	10
2,4'-DDE	NA	*0.22*	5.3	100	16	16
2,4'-DDT	NA	*0.22*	5.3	54	25	25
4,4'-DDD	2900	*0.22*	5.2	55	34	34
4,4'-DDE	2100	*0.22*	4.3	150	59	59
4,4'-DDT	2100	*0.22*	5	51	27	27
ALDRIN	41	*2.2*	2.6	430	11	11
ALPHA-BHC	110	*1.32*	2.7	15	9	9
ALPHA-CHLORDANE	NA	*0.022*	2.5	34	23	23
BETA-BHC	200	*1.32*	2.8	44	27	27
DELTA-BHC	300	*1.32*	3	37	20	20
DIELDRIN	44	*2.2*	5.3	67	23	23
ENDOSULFAN I	900	*NA*	2.9	32	10	0
ENDOSULFAN II	900	*NA*	4.7	18	10	0
ENDOSULFAN SULFATE	1000	*NA*	5.4	35	14	0
ENDRIN	100	*17.6*	4.7	57	16	2
ENDRIN ALDEHYDE	NA	*NA*	5.5	58	14	NA
GAMMA-BHC	60	*1.32*	2.6	150	22	22
GAMMA-CHLORDANE	540	*0.022*	2.4	37	22	22
HEPTACHLOR	100	*0.0176*	2.8	180	25	25
HEPTACHLOR EPOXIDE	20	*0.0176*	2.7	70	22	22
METHOXYCHLOR	NA	*NA*	29	83	8	NA
8082 (ug/Kg)						
AROCLOR 1242	1000	*0.0176*	28	33000	81	81
AROCLOR 1248	1000	*0.0176*	30	30	1	1
AROCLOR 1254	1000	*0.0176*	28	1700	91	91

Table 7 Range of Concentrations in Subsurface Sediments, Buffalo River Sediment Study 2005

Analyte	Screening Criteria (1)	Screening Criteria (2)	Minimum Value	Maximum Value	Number of Positive Results	Number of Results Above Minimum Criteria
AROCLOR 1260	1000	*0.0176*	28	3200	72	72
AROCLOR 1262	1000	*0.0176*	27	130	5	5
AROCLOR 1268	1000	*0.0176*	180	180	1	1
8270C (ug/Kg)						
2,4,5-TRICHLOROPHENOL	100	*NA*	51	51	1	0
2,4,6-TRICHLOROPHENOL	NA	*NA*	0	0	0	NA
2,4-DICHLOROPHENOL	400	*NA*	0	0	0	0
2,4-DIMETHYLPHENOL	NA	*NA*	0	0	0	NA
2,4-DINITROPHENOL	200	*NA*	0	0	0	0
2,4-DINITROTOLUENE	NA	*NA*	82	180	3	NA
2,6-DINITROTOLUENE	1000	*NA*	49	3400	4	1
2-CHLORONAPHTHALENE	NA	*NA*	4500	4500	1	NA
2-CHLOROPHENOL	800	*NA*	31	31	1	0
2-METHYLNAPHTHALENE	36400	*NA*	22	120000	116	35
2-METHYLPHENOL	100	*NA*	65	160	2	1
2-NITROANILINE	430	*NA*	0	0	0	0
2-NITROPHENOL	330	*NA*	0	0	0	0
3,3'-DICHLOROBENZIDINE	NA	*NA*	1100	19000	4	NA
3-NITROANILINE	500	*NA*	960	960	1	1
4,6-DINITRO-2-METHYLPHENOL	NA	*NA*	640	640	1	NA
4-BROMOPHENYL PHENYL ETHER	NA	*NA*	0	0	0	NA
4-CHLORO-3-METHYLPHENOL	240	*NA*	0	0	0	0
4-CHLOROANILINE	220	*NA*	49	20000	9	4
4-CHLOROPHENYL PHENYL ETHER	NA	*NA*	0	0	0	NA
4-METHYLPHENOL	900	*NA*	43	1300	7	1
4-NITROANILINE	NA	*NA*	0	0	0	NA
4-NITROPHENOL	100	*NA*	0	0	0	0
ACENAPHTHENE	50000	*NA*	26	96000	138	2
ACENAPHTHYLENE	41000	*NA*	23	4000	36	0
ACETOPHENONE	NA	*NA*	25	100	23	NA
ANTHRACENE	50000	*NA*	25	110000	146	2
ATRAZINE	NA	*NA*	0	0	0	NA
BENZALDEHYDE	NA	*NA*	31	180	36	NA
BENZO(A)ANTHRACENE	224	*NA*	120	60000	148	132
BENZO(A)PYRENE	61	*28.6*	120	29000	144	144
BENZO(B)FLUORANTHENE	1100	*NA*	160	34000	145	35
BENZO(G,H,I)PERYLENE	50000	*NA*	49	11000	134	0
BENZO(K)FLUORANTHENE	1100	*NA*	120	37000	131	30
BIPHENYL	NA	*NA*	23	17000	46	NA
BIS(2-CHLOROETHOXY)METHANE	NA	*NA*	0	0	0	NA
BIS(2-CHLOROETHYL) ETHER	NA	*0.66*	0	0	0	0
BIS(2-CHLOROISOPROPYL) ETHER	NA	*NA*	0	0	0	NA
BIS(2-ETHYLHEXYL) PHTHALATE	50000	*NA*	31	11000	106	0

Table 7 Range of Concentrations in Subsurface Sediments, Buffalo River Sediment Study 2005

Analyte	Screening Criteria (1)	Screening Criteria (2)	Minimum Value	Maximum Value	Number of Positive Results	Number of Results Above Minimum Criteria
BUTYLBENZYL PHTHALATE	50000	*NA*	27	1300	20	0
CAPROLACTAM	NA	*NA*	2700	2700	1	NA
CARBAZOLE	NA	*NA*	26	13000	94	NA
CHRYSENE	400	*NA*	200	59000	148	128
DIBENZ(A,H)ANTHRACENE	14	*NA*	25	4200	110	110
DIBENZOFURAN	6200	*NA*	23	61000	91	6
DIETHYL PHTHALATE	7100	*NA*	0	0	0	0
DIMETHYL PHTHALATE	2000	*NA*	0	0	0	0
DI-N-BUTYL PHTHALATE	8100	*NA*	23	110	18	0
DI-N-OCTYL PHTHALATE	50000	*NA*	21	480	21	0
FLUORANTHENE	50000	*NA*	290	260000	149	5
FLUORENE	50000	*NA*	24	130000	117	5
HEXACHLOROBENZENE	410	*NA*	230	930	2	1
HEXACHLOROBUTADIENE	NA	*6.6*	0	0	0	NA
HEXACHLOROCYCLOPENTADIENE	NA	*NA*	0	0	0	NA
HEXACHLOROETHANE	NA	*NA*	0	0	0	NA
INDENO(1,2,3-CD)PYRENE	3200	*NA*	49	12000	137	3
ISOPHORONE	4400	*NA*	0	0	0	0
NAPHTHALENE	13000	*NA*	21	110000	107	7
NITROBENZENE	200	*NA*	40	2900	3	2
N-NITROSO-DI-N-PROPYLAMINE	NA	*NA*	0	0	0	NA
N-NITROSODIPHENYLAMINE	NA	*NA*	66	28000	50	NA
PENTACHLOROPHENOL	1000	*NA*	0	0	0	0
PHENANTHRENE	50000	*NA*	97	300000	149	5
PHENOL	30	*NA*	0	0	0	0
PYRENE	50000	*NA*	350	230000	149	4

(1) New York State Department of Environmental Conservation, Technical and Administrative Guidance and Memorandum, # 4046, Revised Jan. 24, 1994 Determination of Soil Cleanup Objectives and Cleanup Levels

(2) New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resoureces, Technical Guidance for Screening Contaminated Sediments, January 1999. Table 1 Human Health Bioaccumulation - Sediment Criteria Site specific criteria based on site average 22 gOC/Kg.

Key:

U: Not detected
J: Estimated
J-: Estimated low
J+: Estimated high
R : Rejected

mg/Kg: miligram per kilogram
ug/Kg: microgram per kilogram
mg/L: miligram per liter
ug/L: microgram per liter

Table 8 Summary of Positive Results for Subsurface Sediments for Volatiles and Petroleum Products, Buffalo River Sediment Study 2005

Analyte	Screening Criteria (1)	Screening Criteria (2)	2-610-00-L34 09/15/2005	2-700-00-L67 08/29/2005	1-720-00-C45 08/27/2005	1-730-00-C57 08/27/2005	6-748-00-R31 08/26/2005	4-753-00-L56 08/26/2005
310.13 (mg/Kg)								
Fuel Oil #2	NA	*NA*	NR	14000	4900	4100	NR	800
8260B (ug/Kg)								
1,2,4-TRICHLOROBENZENE	3400	*NA*	6.5 UJ	3400 U	63000	390000	1000000 J-	1600 J
1,2-DICHLOROBENZENE	7900	*NA*	6.5 UJ	3400	32000	740000	2600000 J-	1700 J
1,3-DICHLOROBENZENE	1600	*NA*	6.5 UJ	3400 U	4100 U	69000 J	160000 J	5700 U
1,4-DICHLOROBENZENE	8500	*NA*	6.5 UJ	20000	60000	340000	580000 J-	740 J
2-BUTANONE	300	*NA*	23	3400 U	4100 U	110000 U	1700 U	5700 U
ACETONE	200	*NA*	78 J	3400 U	4100 U	110000 U	1700 U	5700 U
BENZENE	60	*13.2*	6.5 U	2900 J	3500 J	110000 U	39000 J	5700 U
CHLOROBENZENE	1700	*NA*	17	12000	11000	1900000	590000 J-	5700 U
ETHYLBENZENE	5500	*NA*	6.5 U	3800	2600 J	110000 U	220000 J	5700 U
ISOPROPYLBENZENE	NA	*NA*	6.5 UJ	2500 J	4100 U	110000 U	840 J	5700 U
M,P-XYLENES	1200	*NA*	6.5 U	11000	10000	110000 U	1700 U	5700 U
METHYLCYCLOHEXANE	NA	*NA*	NR	21000	29000	24000 J	7000 J+	720 J
METHYLENE CHLORIDE	100	*NA*	1.3 J	3400 U	4100 U	110000 U	1700 U	5700 U
TETRACHLOROETHENE	1400	*17.6*	6.5 U	3400 U	4100 U	110000 U	*340 J*	5700 U
TOLUENE	1500	*NA*	6.5 U	3400 U	10000	69000 J	98000 J+	5700 U

(1) New York State Department of Environmental Conservation, Technical and Administrative Guidance and Memorandum, # 4046, Revised Jan. 24, 1994 Determination of Soil Cleanup Objectives and Cleanup Levels Values that exceed this criteria are shaded gray a

(2) New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resoureces, Technical Guidance for Screening Contaminated Sediments, January 1999. Table 1 Human Health Bioaccumulation - Sediment Criteria
* Site specific criteria based on site average 22 gOC/Kg. Values that exceed this criteria are shaded teal, with white font, bolded and italics."

Key:

U: Not detected	mg/Kg: miligram per kilogram
J: Estimated	ug/Kg: microgram per kilogram
J-: Estimated low	mg/L: miligram per liter
J+: Estimated high	ug/L: microgram per liter
NR : Not reported or analyzed	

Table 9 Summary of Positive Results for Surface Water, Buffalo River Sediment Study 2005

Analyte	Screening Criteria [1]	10-591-00-R00 08/17/2005	10-617-00-R00 08/17/2005	10-627-00-R00 08/17/2005	10-633-00-L00 08/17/2005	10-646-00-L00 08/17/2005	10-650-00-L00 08/17/2005	10-655-00-R00 08/17/2005	10-658-00-L00 08/17/2005	10-670-00-C00 08/17/2005
Metals by Method 6010B (ug/L)										
ARSENIC	**50**	7.2	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	4.7 U
BARIUM	**1000**	61.7	68.8	63.6	62.7	65.7	64.3	63.4	64.1	64.3
CADMIUM	**5**	0.82	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
COPPER	**200**	3.2	2.5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
IRON	**300**	208	228	**320**	185	191	206	190	228	186
MANGANESE	**300**	83.8	78.9	111	94.0	134	130	126	130	129
SELENIUM	**10**	4.9 R	4.9 R	4.9 R	4.9 R	4.9 R	4.9 R	4.9 R	4.9 R	4.9 R
ZINC	**2000**	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.5	4.4 U	4.4 U
Semivolatile Organic Compounds by Method 8270C (ug/L)										
BIS(2-ETHYLHEXYL) PHTHALATE	**5**	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

(1) New York State Department of Environmental Conservation, Technical and Operational Guidance #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 Table 1, Type H(WS) or lowest standard (fresh water). Values that exceed this criteria are shaded gray and bolded.

Key:

U: Not detected
J: Estimated
J-: Estimated low
J+: Estimated high
R : Rejected

mg/L: miligram per liter
ug/L: microgram per liter

Table 9 Summary of Positive Results for Surface Water, Buffalo River Sediment Study 2005

Analyte	Screening Criteria [1]	10-675-00-R00 08/17/2005	10-680-00-R00 08/17/2005	10-682-00-R00 08/17/2005	10-695-00-R00 08/17/2005	10-711-50-L00 08/17/2005	10-753-00-L00 08/17/2005	10-760-00-L00 08/17/2005	10-770-00-L00 08/17/2005	10-783-00-L00 08/17/2005
Metals by Method 6010B (ug/L)										
ARSENIC	**50**	4.7 U	5.6	4.8	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
BARIUM	1000	66.2	61.5	61.5	60.0	61.2	54.1	58.4	59.8	60.2
CADMIUM	5	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
COPPER	200	2.0 U	2.0 U	2.5	2.2	2.0 U	2.6	3.2	3.1	2.6
IRON	300	**309**	175	224	214	175	195	**357**	**334**	254
MANGANESE	300	144	106	128	88.0	91.2	57.2	68.7	76.0	64.7
SELENIUM	10	4.9 R	4.9 R	4.9 R	4.9 R	4.9 J-	4.9 R	4.9 R	4.9 R	4.9 R
ZINC	2000	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U
Semivolatile Organic Compounds by Method 8270C (ug/L)										
BIS(2-ETHYLHEXYL) PHTHALATE	5	9.4 U	9.4 U	9.4 U	9.4 U	10 U	9.4 U	9.4 U	9.4 U	3.9 J

(1) New York State Department of Environmental Conservation, Technical and Operational Guidance #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 Table 1, Type H(WS) or lowest standard (fresh water). Values that exceed this criteria are shaded gray and bolded

Key:

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mg/L: miligram p
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