Appendix D

Screening-Level Risk Tables

APPENDIX D. SCREENING-LEVEL RISK TABLES

This appendix provides a summary of the ecological data contained in the combined Honeywell (formerly AlliedSignal) and NYSDEC database (from here on referred to as the Onondaga Lake database), and compares exposure concentrations of contaminants in each media to screening values to determine whether they should be carried through in the baseline ecological risk assessment (BERA). In addition, food-web modeling is performed to determine which contaminants pose a potential risk to wildlife receptors. The 112 tables in this appendix cover the following media:

- Surface water.
- Sediments.
- Soil.
- Fish.
- Wildlife receptors consisting of the tree swallow (*Tachycineta bicolor*), mallard (*Anas platyrhynchos*), belted kingfisher (*Ceryle alcyon*), great blue heron (*Ardea herodias*), osprey (*Pandion haliaetus*), red-tailed hawk (*Buteo jamaicensis*), little brown bat (*Myotis lucifugus*) short-tailed shrew (*Blarina brevicauda*), mink (*Mustela vison*), and river otter (*Lutra canadensis*).

D.1 Surface Water

Surface water was collected and analyzed in 1992 and 1999. Table D-1 summarizes the results of the 1992 Onondaga Lake surface water sampling and the results of the 1999 lake surface water sampling are contained in Table D-46. All 1992 and 1999 surface water data were queried from the Onondaga Lake database. Results for duplicate samples were averaged for surface water and all other media. Surface water data from tributaries during base-flow, intermediate-flow and high-flow conditions in 1992 are presented separately (Tables D-2, D-3, and D-4).

These data were compared to surface water screening values (Tables D-107 and D-108) to determine which chemicals exceeded these values in 1992 and 1999. Ratios of the maximum concentration of detected chemicals in Onondaga Lake surface water to the minimum screening value are provided in Tables D-9 and D-53 for 1992 and 1999, respectively. The maximum concentration was selected from the combined dissolved and unfiltered analyses to screen maximum concentrations. Ratios of half the maximum detection limit to the minimum screening value are provided in Tables D-10 and D-54 for 1992 and 1999. USEPA guidance (1989) specifies that one-half the detection limit be used for non-detected results (i.e., data qualified "U") by the laboratory. These ratios were also calculated for the 1992 analyses of Onondaga Lake tributary water at low and high flows (Tables D-11 to D-16).

Hardness-based water quality standards were calculated for some metals (e.g., cadmium, chromium, copper, etc.). Because hardness data are missing from the database, the lowest hardness value presented in Appendix B (135 mg/L $CaCO_3$ detected in 1992) was used to calculate criteria for all contaminants.

D.2 Sediment

Sediment samples were collected and analyzed in 1992 and 2000. There are five sediment summary statistics tables, including two tables summarizing 1992 sediment data (0 to 2 cm and 0 to 30 cm) from Onondaga Lake (Tables D-5a and 5b); one summarizing 1992 sediment data (0 to 2 cm) from the reference lake, Otisco Lake (Table D-6); one summarizing 2000 sediment data (0 to15 cm) from Onondaga Lake (Table D-47); and one summarizing sediment (0 to15 cm) collected in 2000 from Otisco Lake (Table D-48).

These data were compared to sediment screening values (Tables D-109 and D-110) to determine which chemicals exceeded these values in 1992 and 2000. Ratios of the maximum concentration of detected chemicals in top 2 cm of Onondaga Lake and Otisco Lake in 1992 sediment to minimum screening values are provided in Tables D-17 and D-19 for dry weight and organic carbon normalized screening values, respectively. Ratios of the half the maximum detection limit to the minimum screening value for 1992 dry weight and organic carbon normalized concentrations are provided in separate tables (Tables D-18 and D-20). Tables D-55 to D-58 contain dry weight and organic carbon normalized comparisons for Onondaga Lake sediment data collected in 2000. Comparisons of Otisco Lake surface sediments are provided in Tables D-59 to D-62 for 2000 data.

Concentrations of contaminants on an organic carbon normalized basis were calculated individually for each sample. The maximum organic carbon normalized concentration for each contaminant was compared to screening values. Maximum organic carbon normalized values were not necessarily detected in the same samples as the dry weight maximum concentrations.

D.3 Soil

No soil samples were collected in 1992. In 2000, soil was collected and analyzed from Wetlands SYW-6, 10, 12, and 19 near Onondaga Lake (Table D-49) and from the dredge spoils area near the lake (Table D-50). Additional sampling was conducted by NYSDEC/TAMS in Wetland SYW-6 in 2002. These data are also presented in Table D-49 and are used in the screening.

Combined wetland data were compared to ecological-based soil screening values (Table D-111) and sediment screening values (Tables D-109 and D-110), while dredge spoils data were compared only to soil screening values. Soil screening values were based on phytotoxicity (Efroymson et al., 1997a), microbial toxicity (Efroymson et al., 1997b), earthworm toxicity (Efroymson et al., 1997b), and USEPA Region 4 soil screening values (1999). Screening of wetlands data is presented in Tables D-63 to D-66 and screening of dredge spoils soil is presented in Tables D-67 and D-68.

In addition, separate screenings were performed comparing dredge spoils and wetland soil concentrations to Oak Ridge National Laboratory (ORNL) soil benchmarks for plants to evaluate phytotoxicity (Tables D-69 to D-72), since sustainability of the local plant community was selected as an assessment endpoint (Section 4.1.3). All soil comparisons were made on a dry-weight basis.

D.4 Fish

There are four tables summarizing fish tissue statistics, including a table summarizing fish tissue collected from Onondaga Lake and its tributaries in 1992 (Table D-7); a table summarizing fish tissue collected from Onondaga Lake from 1994 to 1999 by NYSDEC (Table D-8); a table summarizing adult fish tissue collected from Onondaga Lake in 2000 (Table D-51); and a table summarizing juvenile fish tissue collected from Onondaga Lake in 2000 (Table D-52). Both whole fish and fish fillet data are included in the tables.

Although the fish tissue data collected from the tributaries are presented, these data were not screened or used in the food-web modeling. Potentially responsible party (PRP) PCB data (PTI samples) from 1992 were not utilized, as described in Section 11.1.3 of the BERA.

Fish data were screened using ecological screening values (Table D-112) taken from the International Joint Commission (IJC) of the US and Canada (1989), Newell et al. (1987), and Sample et al. (1986). These comparisons are presented for 1992 data (Tables D-21 and D-22), 1994 to 1999 data (Tables D-23 and D-24), and adult and juvenile 2000 data (Tables D-73 to D-76).

D.5 Wildlife Receptors

Exposure of avian and mammalian wildlife receptors to contaminants was screened using food-web modeling. The screening exposure assumptions used for receptors are provided in Section 5.1 and are summarized at the bottom of each table. Toxicity values used for screening can be found in Section 4.2 (Tables 4-10 and 4-11). The equations used to calculate exposure are described in Section 5.1 and are provided at the bottom of each table.

Screening tables using 1992 data for the mink, belted kingfisher, great blue heron, osprey, mallard, river otter, tree swallow, and little brown bat are provided in Tables D-25 to D-45. Results for food-web modeling performed using 2000 data are given in Tables D-77 to D-106. Data from 2000 included soil samples, so that terrestrial receptors (i.e., short-tailed shrew and red-tailed hawk) were also evaluated for this data set.

Wildlife receptors were divided into three general feeding groups, piscivores, insectivores, and terrestrial feeders for screening purposes, as described below.

D.5.1 Piscivorous Receptors

Piscivorous receptors (i.e., belted kingfisher, great blue heron, osprey, mink, and river otter) were assumed to have a diet composed of 100 percent fish for screening. Each individual fish sample was converted to dry weight by dividing by its percent solids and then multiplying by 100. Average percent solids, by species, were used to calculate fish dry weight when there was no value available for a particular sample. The maximum concentration of each contaminant detected in fish, regardless of size, was used for each receptor.

Contaminants were divided into three categories (detected contaminants, dioxins/furans, and undetected contaminants) for wildlife receptors, each with a separate table.

The concentration of dioxins/furans was based on the individual sample with the highest toxicity equivalent (TEQ), as opposed to summing the maximum concentration of each dioxin and furan separately. Avian and mammalian TEQ factors (van den Berg et al., 1998) were used to calculate the toxicity of each dioxin and furan.

D.5.2 Benthivorous/Insectivorous Receptors

For the screening assessment, benthivorous and insectivorous receptors (i.e., mallard, tree swallow, and little brown bat) were assumed to have a diet composed of 100 percent aquatic invertebrates. Only measured total mercury and methylmercury concentrations were available in aquatic invertebrates; therefore, biota sediment accumulation factors (BSAFs) were used in order to calculate the concentration of the remaining contaminants in aquatic invertebrates. The metals BSAFs were taken from recommendations from the Oak Ridge Reservation (US Department of Energy [USDOE], 1998) using 90th percentile BSAFs for non-depurated organisms. All other BSAFs are from the US Army Corps of Engineers (USACE) BSAF database (http://www.wes.army.mil/el/bsaf/bsaf.html) or based on professional judgment. BSAFs for organic compounds are the ratio of the total organic carbon (TOC) and percent lipid-normalized concentrations. When using the USACE database, freshwater invertebrate data were preferred. All freshwater invertebrate BSAFs listed for a compound were averaged to obtain the BSAF used for screening. If no freshwater invertebrate data were available, saltwater invertebrate data were used. If data were not available for invertebrates, fish data were used.

The benthic invertebrate body burden was calculated as follows, based on McFarland (1998):

$$\text{Benthic invertebrate body burden (mg/kg)} = \text{BSAF} \times \frac{\text{(sediment concentration mg/kg)}}{\text{(\% TOC sediment} \times \text{\% lipid)}}$$

The sediment TOC was assumed to be 1.0 percent and the invertebrate percent lipid was assumed to be 1.45 percent, based on the maximum benthic percent lipid value in the Onondaga Lake database. For inorganic contaminants, benthic invertebrate body burdens were derived by multiplying the BSAF by the sediment concentration.

For receptors that consume the emergent phase of benthic invertebrates (i.e., tree swallow and little brown bat), the contaminant concentration was assumed to remain constant between the larval and adult phase.

Dioxins and furans were not analyzed in lake sediments in 1992 and, therefore, there are no dioxin/furan tables for the mallard, tree swallow, and little brown bat for that year.

D.5.3 Terrestrial Receptors

To calculate concentrations of contaminants in the prey of the short-tailed shrew, earthworm uptake factors (UFs) were used, with earthworms representing prey of shrews. UFs were obtained from the conservative recommendations presented in Sample et al. (1998a), Development and Validation of Bioaccumulation Models for Earthworms. For dioxin and furans, the 90th percentile UFs were used. When a UF was not available for a contaminant, professional judgment was used to determine if an alternative UF could be applied.

The food-web exposure assessment for the red-tailed hawk required small-mammal UFs to calculate contaminant concentrations in prey. UFs were obtained from the conservative recommendations presented in Sample et al. (1998b), Development and Validation of Bioaccumulation Models for Small Mammals. When a UF was not available for a contaminant, professional judgment was used to determine if an alternative UF could be applied.

Concentrations of contaminants in prey were calculated by multiplying the earthworm or small-mammal UF by the maximum detected soil concentration.

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Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Ammonia – nitrogen	mg/L	143	143	0.3	2.2	2.0	5.5				
Carbon dioxide	mg/L	129	67	4.0	38	34	84				
Sulfate – dissolved	mg/L-dis	44	44	65	142	139	251				
Sulfate	mg/L	143	143	70	144	142	205				
Sulfides – dissolved	mg/L-dis	44	10	1.0	3.5	2.7	7.7	1.0	1.0	1.0	1.0
Sulfides	mg/L	114	14	1.1	4.1	2.9	11	1.0	1.0	1.0	1.0
Total alkalinity – dissolved	mg/L-dis	43	43	152	187	186	234				
Total alkalinity	mg/L	143	143	125	182	181	366				
Chloride – dissolved	mg/L-dis	7	7	450	466	466	479				
Chloride	mg/L	143	143	154	472	467	554				
Total inorganic carbon – dissolved	mg/L-dis	44	44	9.8	45	44	67				
Total inorganic carbon	mg/L	143	143	25	46	46	65				
Total organic carbon – dissolved	mg/L-dis	44	44	4.0	6.1	6.0	12				
Total organic carbon	mg/L	143	141	4.0	6.7	6.4	38	1.0	1.0	1.0	1.0
Total suspended solids	mg/L-sus	138	119	1.0	3.9	3.2	17	4.0	4.0	4.0	4.0
Total solids	mg/L	5	5	1.2	1.7	1.6	2.1				
Conductivity	umho/c	420	418	900	2,092	2,079	7,846				
Discharge – instantaneous	cfs	7	7	194	693	410	2,950				
Dissolved oxygen, wt/vol	mg/L	422	366	2.0E-02	5.4	1.6	15				
pH	pH	417	361	6.2	7.7	7.7	8.6				
Secchi depth	m	16	16	1.2	3.2	2.8	5.3				
Temperature	degC	420	419	3.2	14	12	25				
Hardness[a]	mg/L ($CaCO_3$)	126		308	492		554				
Total Metals and Cyanide											
Aluminum	µg/L	4	4	92.5	107	107	119				
Antimony	µg/L	4	2	23.9	25.1	25	26.2	17	17	17	17
Arsenic	µg/L	4	1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0
Barium	µg/L	4	4	66.8	71.95	71.80	77.2				
Beryllium	µg/L	4						1.0	1.0	1.0	1.0
Cadmium – dissolved	µg/L-dis	3						2.0	2.0	2.0	2.0
Cadmium	µg/L	144	3	2.7	2.8	2.8	2.9	2.0	2.0	2.0	2.0
Calcium – dissolved	µg/L-dis	44	44	130,000	157,068	156,826	177,000				
Calcium	µg/L	144	144	67,900	156,232	154,953	181,000				

Table D-1. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Chromium – dissolved	µg/L-dis	3						4.0	4.0	4.0	4.0
Chromium	µg/L	144	18	1.3	3.5	2.8	17.5	2.0	2.9	2.7	4.0
Cobalt	µg/L	4						4.0	4.0	4.0	4.0
Copper – dissolved	µg/L-dis	3						3.0	3.0	3.0	3.0
Copper	µg/L	144	41	1.1	4.2	2.7	51	1.0	2.2	2.1	7.4
Dimethyl mercury – total	ng/L	114	2	8.6E-04	1.1E-03	1.1E-03	1.3E-03	5.5E-04	3.9E-03	3.2E-03	1.3E-02
Elemental mercury – total	ng/L	114	91	1.4E-02	8.5E-02	6.5E-02	0.448	1.0E-02	6.2E-02	3.3E-02	0.179
Ionic mercury – dissolved	µg/L-dis	114	101	0.1	0.8	0.6	3.8	1.1	1.1	1.1	1.1
Ionic mercury – total	ng/L	114	113	0.1	1.3	0.8	19	2.8	2.8	2.8	2.8
Iron – dissolved	µg/L-dis	3	3	36	148	104	300				
Iron	µg/L	114	111	21	68	55	362	16	31	29	39
Lead	µg/L	144	35	0.767	2.6	2.0	18.1	1.0	1.0	1.0	3.4
Magnesium – dissolved	µg/L-dis	44	44	20,900	23,405	23,379	26,400				
Magnesium	µg/L	121	121	14,500	23,503	23,458	27,300				
Manganese – dissolved	µg/L-dis	3	3	4.1	328	49	949				
Manganese	µg/L	114	112	3.0	189	57	880	11	12	12	13
Methylmercury – dissolved	ng/L-dis	114	114	3.9E-02	1.2	0.4	9.2				
Methylmercury – total	ng/L	143	142	0.1	2.0	0.9	12	0.1	0.1	0.1	0.1
Mercury – dissolved	ng/L-dis	114	114	0.6	3.4	2.9	11				
Mercury – total	ng/L	143	143	1.3	9.0	6.7	59				
Nickel – dissolved	µg/L-dis	3	1	9.9	9.9	9.9	9.9	7.0	7.0	7.0	7.0
Nickel	µg/L	144	18	5.0	9.0	8.5	17	4.0	5.9	5.7	8.0
Potassium	µg/L	4	4	5,960	6,448	6,439	6,800				
Selenium	µg/L	4						1.0	1.0	1.0	1.0
Silver	µg/L	4						2.0	2.0	2.0	2.0
Sodium – dissolved	µg/L-dis	3	3	231,000	239,667	239,501	252,000				
Sodium	µg/L	144	144	78,200	213,417	210,514	276,000				
Thallium	µg/L	4						5.0	5.0	5.0	5.0
Vanadium	µg/L	4						4.0	4.0	4.0	4.0
Zinc – dissolved	µg/L-dis	3	3	13	17	17	22				
Zinc	µg/L	144	125	2.3	19	13	143	2.0	7.1	5.3	16
Cyanide	µg/L	4	1	171	171	171	171	10	10	10	10
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	133						1.0	1.4	1.1	10

Table D-1. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Ethylbenzene	µg/L	133						1.0	1.4	1.1	10
Toluene	µg/L	133						1.0	1.4	1.1	10
Styrene	µg/L	3						10	10	10	10
Xylene (Total)	µg/L	133						1.0	1.5	1.1	10
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	133						1.0	1.4	1.1	10
1,2-Dichlorobenzene	µg/L	133	1	1.7	1.7	1.7	1.7	1.0	1.5	1.1	10
1,3-Dichlorobenzene	µg/L	133	1	1.2	1.2	1.2	1.2	1.0	1.5	1.1	10
1,4-Dichlorobenzene	µg/L	133	2	1.1	1.4	1.4	1.7	1.0	1.5	1.1	10
Dichlorobenzenes (Sum)	µg/L	133	2	1.1	2.9	2.2	4.6	1.0	1.5	1.1	10
1,2,3-Trichlorobenzene	µg/L	127	2	1.6	2.2	2.1	2.7	1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	133	2	1.2	1.8	1.7	2.4	1.0	1.5	1.1	10
1,3,5-Trichlorobenzene	µg/L	127	1	1.6	1.6	1.6	1.6	1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	135	2	2.8	4.8	4.3	6.7	1.0	1.5	1.1	10
Halogenated Alkanes											
Chloromethane	µg/L	3						10	10	10	10
Bromomethane	µg/L	3						10	10	10	10
Chloroethane	µg/L	3						10	10	10	10
Methylene chloride	µg/L	3						10	10	10	10
1,1-Dichloroethane	µg/L	3						10	10	10	10
Chloroform	µg/L	3						10	10	10	10
1,2-Dichloroethane	µg/L	3						10	10	10	10
1,1,1-Trichloroethane	µg/L	3						10	10	10	10
Carbon tetrachloride	µg/L	3						10	10	10	10
Bromodichloromethane	µg/L	3						10	10	10	10
1,2-Dichloropropane	µg/L	3						10	10	10	10
Dibromochloromethane	µg/L	3						10	10	10	10
1,1,2-Trichloroethane	µg/L	3						10	10	10	10
Bromoform	µg/L	3						10	10	10	10
1,1,2,2-Tetrachloroethane	µg/L	3						10	10	10	10
Halogenated Alkenes											
Vinyl chloride	µg/L	3						10	10	10	10
1,1-Dichloroethene	µg/L	3						10	10	10	10
1,2-Dichloroethene (Total)	µg/L	3						10	10	10	10
Cis-1,3-dichloropropene	µg/L	3						10	10	10	10

Table D-1. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Trans-1,3-dichloropropene	µg/L	3						10	10	10	10
Trichloroethene	µg/L	3						10	10	10	10
Tetrachloroethene	µg/L	3						10	10	10	10
Ketones											
Acetone	µg/L	3						10	10	10	10
2-Butanone	µg/L	3						10	10	10	10
2-Hexanone	µg/L	3						10	10	10	10
4-Methyl-2-pentanone	µg/L	3						10	10	10	10
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/L	3						10	10	10	10
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	30						5.0E-02	1.4	0.1	10
2-Chloronaphthalene	µg/L	4						10	10	10	10
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/L	4						10	10	10	10
Acenaphthylene	µg/L	4						10	10	10	10
Acenaphthene	µg/L	4						10	10	10	10
Fluorene	µg/L	4						10	10	10	10
Phenanthrene	µg/L	4						10	10	10	10
Anthracene	µg/L	4						10	10	10	10
2-Methylnaphthalene	µg/L	4						10	10	10	10
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/L	4						10	10	10	10
Pyrene	µg/L	4						10	10	10	10
Benz(a)anthracene	µg/L	4						10	10	10	10
Chrysene	µg/L	4						10	10	10	10
Benzo(b)fluoranthene	µg/L	4						10	10	10	10
Benzo(k)fluoranthene	µg/L	4						10	10	10	10
Benzo(a)pyrene	µg/L	4						10	10	10	10
Indeno(1,2,3-cd)pyrene	µg/L	4						10	10	10	10
Dibenz(a,h)anthracene	µg/L	4						10	10	10	10
Benzo(g,h,i)perylene	µg/L	4						10	10	10	10
Phenols											
Phenol	µg/L	4						10	10	10	10

Table D-1. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
2-Methylphenol	µg/L	4						10	10	10	10
4-Methylphenol	µg/L	4						10	10	10	10
2,4-Dimethylphenol	µg/L	4						10	10	10	10
Substituted Phenols											
2-Chlorophenol	µg/L	4						10	10	10	10
2,4-Dichlorophenol	µg/L	4						10	10	10	10
4-Chloro-3-methylphenol	µg/L	4						10	10	10	10
2,4,6-Trichlorophenol	µg/L	4						10	10	10	10
2,4,5-Trichlorophenol	µg/L	4						25	25	25	25
Pentachlorophenol	µg/L	4						25	25	25	25
2-Nitrophenol	µg/L	4						10	10	10	10
4-Nitrophenol	µg/L	4						25	25	25	25
2,4-Dinitrophenol	µg/L	4						25	25	25	25
2-Methyl-4,6-dinitrophenol	µg/L	4						25	25	25	25
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/L	4						10	10	10	10
Hexachlorobutadiene	µg/L	4						10	10	10	10
Hexachlorocyclopentadiene	µg/L	4						10	10	10	10
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/L	4						10	10	10	10
4-Chlorophenyl-phenyl ether	µg/L	4						10	10	10	10
4-Bromophenyl-phenyl ether	µg/L	4						10	10	10	10
Bis(2-chloroethoxy)methane	µg/L	4						10	10	10	10
2,2'-Oxybis(1-chloropropane)	µg/L	4						10	10	10	10
Phthalates											
Dimethylphthalate	µg/L	4						10	10	10	10
Diethylphthalate	µg/L	4						10	10	10	10
Di-n-butylphthalate	µg/L	4						10	10	10	10
Butylbenzylphthalate	µg/L	4						10	10	10	10
Bis(2-ethylhexyl)phthalate	µg/L	4	4	2.0	4.0	3.0	10				
Di-n-octylphthalate	µg/L	4						10	10	10	10
Miscellaneous Oxygenated Compounds											
Isophorone	µg/L	4						10	10	10	10
Dibenzofuran	µg/L	4						10	10	10	10
Carbazole	µg/L	4						10	10	10	10

Table D-1. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Organonitrogen Compounds											
Nitrobenzene	µg/L	4						10	10	10	10
N-nitroso-di-n-propylamine	µg/L	4						10	10	10	10
2-Nitroaniline	µg/L	4						25	25	25	25
3-Nitroaniline	µg/L	4						25	25	25	25
4-Nitroaniline	µg/L	4						25	25	25	25
2,6-Dinitrotoluene	µg/L	4						10	10	10	10
2,4-Dinitrotoluene	µg/L	4						10	10	10	10
N-Nitrosodiphenylamine(1)	µg/L	4						10	10	10	10
4-Chloroaniline	µg/L	4						10	10	10	10
3,3-Dichlorobenzidine	µg/L	4						10	10	10	10
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
β-Hexachlorocyclohexane	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
δ-Hexachlorocyclohexane	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
γ-Hexachlorocyclohexane (Lindane)	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
Aldrin	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
Chlordane	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
α-Chlordane	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
γ-Chlordane	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
Chlordane (Sum)	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
Dieldrin	µg/L	4						0.1	0.1	0.1	0.1
α-Endosulfan	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
β-Endosulfan	µg/L	4						0.1	0.1	0.1	0.1
Endosulfan sulfate	µg/L	4						0.1	0.1	0.1	0.1
Endrin	µg/L	4						0.1	0.1	0.1	0.1
Endrin aldehyde	µg/L	4						0.1	0.1	0.1	0.1
Endrin ketone	µg/L	4						0.1	0.1	0.1	0.1
Heptachlor	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
Heptachlor epoxide	µg/L	4						5.0E-02	5.1E-02	5.0E-02	5.2E-02
Methoxychlor	µg/L	4						0.5	0.5	0.5	0.5
4,4'-DDD	µg/L	4						0.1	0.1	0.1	0.1
4,4'-DDE	µg/L	4						0.1	0.1	0.1	0.1
4,4'-DDT	µg/L	4						0.1	0.1	0.1	0.1
Toxaphene	µg/L	4						5.0	5.1	5.0	5.2

Table D-1. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Aroclor 1016	µg/L	4						1.0	1.0	1.0	1.0
Aroclor 1221	µg/L	4						2.0	2.0	2.0	2.1
Aroclor 1232	µg/L	4						1.0	1.0	1.0	1.0
Aroclor 1242	µg/L	4						1.0	1.0	1.0	1.0
Aroclor 1248	µg/L	4						1.0	1.0	1.0	1.0
Aroclor 1254	µg/L	4						1.0	1.0	1.0	1.0
Aroclor 1260	µg/L	4						1.0	1.0	1.0	1.0
PCBs (Sum)	µg/L	4						1.0	1.0	1.0	1.0

Notes: [a] Hardness values not in database. Summary of hardness values are located in Honeywell's Appendix B as a hard copy only.

Table D-2. Summary Statistics for Surface Water Collected from Metro Discharge and Onondaga Lake Tributaries During Base-Flow Conditions in 1992[a]

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Metro Outfall (Station W3E, Site 270)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	4	4	4.72	9.3	8.7	14				
Sulfate	mg/L	4	4	182	200	199	213				
Total alkalinity	mg/L	4	4	159	183	181	208				
Chloride	mg/L	4	4	98	130	126	163				
Total inorganic carbon	mg/L	4	4	48	53	53	63				
Total organic carbon	mg/L	4	4	18	20	20	23				
Total suspended solids	mg/L-sus	4	3	5.0	11	9.5	19	4.0	4.0	4.0	4.0
Conductivity	umho/c	5	5	426	1,109	1,019	1,560				
Discharge instantaneous	cfs	2	2	750	763	762	775				
Dissolved oxygen, wt/vol	mg/L	4	4	8.3	9.3	9.3	11				
pH	pH	4	3	7.3	7.3	7.3	7.3				
Temperature	degC	5	5	3.3	14	12	21				
Hardness[v]	mg/L ($CaCO_3$)	4		199	232	230	270				
Total Metals											
Cadmium	µg/L	4						2.0	2.0	2.0	2.0
Calcium	µg/L	4	4	79,600	92,775	92,139	108,000				
Chromium	µg/L	4	1	2.5	2.5	2.5	2.5	4.0	4.0	4.0	4.0
Copper	µg/L	4	4	5.3	8.0	7.6	12				
Lead	µg/L	4	1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0
Methylmercury – total	ng/L	4	4	1.5	2.1	2.0	3.1				
Mercury – total	ng/L	4	4	9.5	28	23	56				
Nickel	µg/L	4	3	11	16	16	19	7.0	7.0	7.0	7.0
Sodium	µg/L	4	4	83,000	95,800	95,276	106,000				
Zinc	µg/L	4	3	27	33	32	42	30	30	30	30
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	3						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	3						1.0	1.0	1.0	1.0
Toluene	µg/L	3	1	3.1	3.1	3.1	3.1	1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	3						1.0	1.7	1.4	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Dichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	3						0.1	0.1	0.1	0.1
Ley Creek (Station W6, Site 700)											
Conventional Analytes											
Ammonia-nitrogen	mg/L	4	4	0.5	0.6	0.6	0.6				
Sulfate	mg/L	4	4	184	210	209	250				
Total alkalinity	mg/L	4	4	237	251	250	264				
Chloride	mg/L	4	4	277	296	296	323				
Total inorganic carbon	mg/L	4	4	55	62	62	70				
Total organic carbon	mg/L	4	4	7.0	7.8	7.8	9.3				
Total suspended solids	mg/L-sus	4	3	11	23	21	36	4.0	4.0	4.0	4.0
Conductivity	umh	5	5	850	1,436	1,397	1,680				
Discharge instantaneous	cfs	4	4	10	12	12	18				
Dissolved oxygen, wt/vol	mg/L	4	4	5.4	7.6	7.4	9.4				
pH	pH	5	4	7.4	7.6	7.6	7.8				
Temperature	degC	5	5	8.9	17	16	25				
Hardness[v]	mg/L ($CaCO_3$)	5		327	392	387	492				
Total Metals											
Cadmium	µg/L	4						2.0	2.0	2.0	2.0
Calcium	µg/L	4	4	131,000	146,750	146,405	158,000				
Chromium	µg/L	4	3	2.6	3.2	3.1	4.3	4.0	4.0	4.0	4.0
Copper	µg/L	4	3	2.3	3.4	3.3	4.1	3.0	3.0	3.0	3.0
Lead	µg/L	4	3	2.7	4.6	4.2	7.4	5.6	5.6	5.6	5.6
Magnesium	µg/L	1	1	32,885	32,885	32,885	32,885				
Methylmercury – total	ng/L	3	3	4.2E-02	0.2	0.1	0.3				
Mercury – total	ng/L	4	4	1.5	5.6	4.6	9.4				
Nickel	µg/L	4						5.0	6.3	6.1	8.0
Sodium	µg/L	4	4	137,000	152,000	151,498	169,000				
Zinc	µg/L	4	3	10	17	16	22	21	21	21	21
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	3						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	3						1.0	1.0	1.0	1.0
Toluene	µg/L	3						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	3						1.0	2.3	2.1	3.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	3						0.1	0.2	0.1	0.5
Ninemile Creek (Station W10, Site 701)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	3	3	0.6	0.7	0.7	0.7				
Sulfate	mg/L	3	3	334	349	349	364				
Total alkalinity	mg/L	3	3	192	213	212	236				
Chloride	mg/L	3	3	1,121	1,250	1,245	1,411				
Total inorganic carbon	mg/L	3	3	48	52	51	59				
Total organic carbon	mg/L	3	3	2.9	6.1	4.8	13				
Total suspended solids	mg/L	3	3	12	16	15	20				
Conductivity	umh	5	5	1,300	2,970	2,613	4,470				
Discharge instantaneous	cfs	3	3	64	139	119	244				
Dissolved oxygen, wt/vol	mg/L	3	3	8.3	9.8	9.7	12				
pH	pH	5	3	7.7	7.9	7.9	8.0				
Temperature	degC	5	5	7.8	16	15	22				
Hardness[u]	mg/L ($CaCO_3$)	3		1,221	1,410	1,398	1,661				
Total Metals											
Cadmium	µg/L	3						2.0	2.0	2.0	2.0
Calcium	µg/L	3	3	486,000	518,333	516,564	580,000				
Chromium	µg/L	3						2.0	3.3	3.2	4.0
Copper	µg/L	3						1.0	1.3	1.3	2.0
Iron	µg/L	1	1	524	524	524	524				
Lead	µg/L	3						1.0	1.0	1.0	1.0
Magnesium	µg/L	2	2	46,079	48,907	48,825	51,735				
Manganese	µg/L	1	1	113	113	113	113				
Methylmercury – total	ng/L	3	3	0.1	0.2	0.1	0.2				
Mercury – total	ng/L	3	3	8.6	13	12	21				
Nickel	µg/L	3						5.0	7.0	6.8	8.0
Sodium	µg/L	3	3	285,000	302,333	301,620	332,000				
Zinc	µg/L	3	2	3.3	4.5	4.3	5.6	2.0	2.0	2.0	2.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	3						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	3						1.0	1.0	1.0	1.0
Toluene	µg/L	3						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	3						1.0	1.7	1.4	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	3						0.1	0.4	0.2	0.5
East Flume (Station W7, Site 703)											
Conventional Analytes											
Ammonia-nitrogen	mg/L	10	10	0.2	2.0	1.4	4.2				
Sulfate	mg/L	10	10	182	315	290	675				
Total alkalinity	mg/L	10	10	131	174	171	235				
Chloride	mg/L	10	10	101	348	304	610				
Total inorganic carbon	mg/L	10	10	29.9	45	44	60				
Total organic carbon	mg/L	10	9	5.24	10	9.4	20	1.0	1.0	1.0	1.0
Conductivity	umh	8	8	990	1,977	1,891	2,910				
Discharge instantaneous	cfs	7	7	0.5	1.7	1.4	3.1				
Dissolved oxygen, wt/vol	mg/L	7	7	2.7	5.6	5.1	8.5				
pH	pH	8	6	7.7	8.1	8.1	8.6				
Total suspended solids	mg/L-sus	10	8	2.7	19	13	51	4.0	4.0	4.0	4.0
Temperature	degC	7	7	5.7	17	14	29				
Hardness[u]	mg/L ($CaCO_3$)	10		280	393	384	544				
Total Metals											
Cadmium	µg/L	10						2.0	2.0	2.0	2.0
Calcium	µg/L	10	10	90,600	139,127	135,473	220,333				
Chromium	µg/L	10	3	2.7	6.2	5.4	11	2.0	3.1	3.0	4.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Copper	µg/L	10	9	2.1	7.5	6.4	15	5.3	5.3	5.3	5.3
Lead	µg/L	10	5	1.3	5.7	4.2	11	1.0	4.7	2.9	11
Magnesium	µg/L	5	5	18,220	22,216	21,783	31,170				
Methylmercury – total	ng/L	10	10	0.5	0.8	0.7	1.2				
Mercury – total	ng/L	11	11	23	55	50	95				
Nickel	µg/L	10						5.0	6.4	6.3	8.0
Sodium	µg/L	10	10	62,800	226,217	193,812	380,000				
Zinc	µg/L	10	9	10	89	62	196	33	33	33	33
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	10	1	15	15	15	15	1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	10						1.0	1.0	1.0	1.0
Toluene	µg/L	10	1	2.5	2.5	2.5	2.5	1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	10	1	1.4	1.4	1.4	1.4	1.0	1.4	1.3	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	10	1	7.6	7.6	7.6	7.6	1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	10	4	1.2	4.2	3.0	10	1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	10						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	10	8	4.6	9.1	8.5	13	1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	10	8	5.1	11	10	23	1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	10						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	10						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	10						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	10						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	9						0.1	0.2	0.1	0.5
Harbor Brook (Station W5, Site 704)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	7	7	0.1	0.1	0.1	0.3				
Carbon dioxide	mg/L	1	1	5.8	5.8	5.8	5.8				
Sulfate	mg/L	7	7	398	544	533	706				
Total alkalinity	mg/L	7	7	229	250	249	280				
Chloride	mg/L	7	7	261	282	280	366				
Total inorganic carbon	mg/L	7	7	49	65	64	74				
Total organic carbon	mg/L	7	7	1.9	5.8	4.2	19				
Total suspended solids	mg/L	7	3	8	9.9	9.8	12	4.0	4.0	4.0	4.0
Conductivity	umh	9	9	780	1,677	1,585	2,380				
Discharge instantaneous	cfs	8	8	4.5	6.9	6.7	10				
Dissolved oxygen, wt/vol	mg/L	7	7	8.8	11	11	15				
pH	pH	9	7	7.9	8.1	8.1	8.3				
Temperature	degC	8	8	3.5	10	8.6	19				
Hardness	mg/L ($CaCO_3$)	7		564	685	678	844				

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Total Metals											
Cadmium	µg/L	7						2.0	2.0	2.0	2.0
Calcium	µg/L	7	7	226,000	253,000	252,575	271,000				
Chromium	µg/L	7	1	4.5	4.5	4.5	4.5	2.0	3.3	3.2	4.0
Copper	µg/L	7	1	1.6	1.6	1.6	1.6	1.0	2.3	2.2	3.0
Lead	µg/L	7	1	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.0
Magnesium	µg/L	2	2	44,376	45,215	45,207	46,054				
Methylmercury – total	ng/L	7	7	0.2	0.4	0.4	0.5				
Mercury – total	ng/L	8	8	1.8	3.3	3.2	4.0				
Nickel	µg/L	7	1	9.1	9.1	9.1	9.1	5.0	6.7	6.5	8.0
Sodium	µg/L	7	7	108,000	138,667	135,612	213,000				
Zinc	µg/L	7	4	4	5.0	4.9	6.4	6.2	17	12	36
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	7	4	0.7	1.2	1.1	1.7	1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	7						1.0	1.0	1.0	1.0
Toluene	µg/L	7	5	1.0	1.7	1.7	2.6	1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	7	4	2	2.8	2.7	3.6	1.0	1.7	1.4	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	7						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	7						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	6						0.1	0.2	0.1	0.5
Tributary 5A (Station W8, Site 705)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	7	7	4.2E-02	0.2	0.1	0.6				
Carbon dioxide	mg/L	1	1	1.3	1.3	1.3	1.3				
Sulfate	mg/L	7	7	93	115	114	137				
Total alkalinity	mg/L	7	7	111	128	127	148				
Chloride	mg/L	7	7	302	321	321	352				
Total inorganic carbon	mg/L	7	7	18	29	28	35				
Total organic carbon	mg/L	7	7	3.3	5.4	5.2	8.5				
Total suspended solids	mg/L-sus	7	3	4	8.8	7.9	12	4.0	4.0	4.0	4.0
Conductivity	umho/c	9	9	1,168	1,451	1,440	1,770				
Discharge instantaneous	cfs	9	9	1.9	2.4	2.4	3.0				

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Dissolved oxygen, wt/vol	mg/L	7	7	6	7.4	7.3	8.9				
pH	pH	9	8	8.1	8.3	8.3	8.7				
Temperature	degC	8	8	10	19	18	28				
Hardness[v]	mg/L ($CaCO_3$)	7		223	271	267	369				
Total Metals											
Cadmium	µg/L	7						2.0	2.0	2.0	2.0
Calcium	µg/L	7	7	89,300	102,076	101,437	124,000				
Chromium	µg/L	7	7	4.4	13	11	28				
Copper	µg/L	7	6	5.2	7.7	7.4	10	7.0	7.0	7.0	7.0
Iron	µg/L	1	1	396	396	396	396				
Lead	µg/L	7	5	1.3	1.6	1.5	2.1	1.0	1.5	1.4	1.9
Magnesium	µg/L	2	2	13,382	13,935	13,924	14,488				
Manganese	µg/L	1	1	89	89	89	89				
Methylmercury – total	ng/L	8	8	5.1E-02	0.1	0.1	0.5				
Mercury – total	ng/L	8	8	5.6	8.9	8.2	19				
Nickel	µg/L	7	7	18	66	57	115				
Sodium	µg/L	7	7	140,000	165,905	164,683	197,000				
Zinc	µg/L	7	4	5.9	23	16	59	7.3	18	13	38
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	7	3	2.6	18	12	34	1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	7						1.0	1.1	1.1	2.0
Toluene	µg/L	7	3	0.7	2.3	1.8	4.2	1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	7	4	0.8	1.5	1.4	2.2	1.0	1.7	1.4	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	7						1.0	1.1	1.1	2.0
1,2-Dichlorobenzene	µg/L	7						1.0	1.1	1.1	2.0
1,3-Dichlorobenzene	µg/L	7						1.0	1.1	1.1	2.0
1,4-Dichlorobenzene	µg/L	7						1.0	1.1	1.1	2.0
Dichlorobenzenes (Sum)	µg/L	7						1.0	1.1	1.1	2.0
1,2,3-Trichlorobenzene	µg/L	7						1.0	1.1	1.1	2.0
1,2,4-Trichlorobenzene	µg/L	7						1.0	1.1	1.1	2.0
1,3,5-Trichlorobenzene	µg/L	7						1.0	1.1	1.1	2.0
Trichlorobenzenes (Sum)	µg/L	7						1.0	1.1	1.1	2.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	6						0.1	0.2	0.1	0.5
Onondaga Creek (Station W4, Site 706)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	5	5	0.2	0.4	0.3	0.8				
Sulfate	mg/L	5	5	162	219	216	269				
Total alkalinity	mg/L	5	5	231	236	236	248				
Chloride	mg/L	5	5	790	890	882	1,115				

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Total inorganic carbon	mg/L	5	5	3.3	51	35	66				
Total organic carbon	mg/L	5	5	2.4	4.4	4.2	6.8				
Total suspended solids	mg/L	5	5	5	15	11	39				
Conductivity	umh	10	10	1,850	3,229	3,170	4,000				
Discharge instantaneous	cfs	1	1	99	99	99	99				
Dissolved oxygen, wt/vol	mg/L	9	9	5.8	7.7	7.6	10				
pH	pH	10	8	7.6	7.8	7.8	7.9				
Temperature	degC	10	10	5.6	13	12	21				
Hardness[u]	mg/L ($CaCO_3$)	5		327	392	387	492				
Total Metals											
Cadmium	µg/L	5						2.0	2.0	2.0	2.0
Calcium	µg/L	5	5	131,000	138,800	138,652	150,000				
Chromium	µg/L	5						2.0	3.6	3.5	4.0
Copper	µg/L	5	3	1.3	4.2	3.4	6.4	2.0	2.5	2.4	3.0
Lead	µg/L	5	2	1.3	2.4	2.1	3.5	1.0	1.0	1.0	1.0
Magnesium	µg/L	2	2	27,570	27,969	27,966	28,368				
Methylmercury – total	ng/L	4	4	0.2	0.3	0.3	0.4				
Mercury – total	ng/L	5	5	1.8	6.2	5.0	14				
Nickel	µg/L	5						5.0	6.8	6.7	8.0
Sodium	µg/L	5	5	438,000	525,800	521,866	638,000				
Zinc	µg/L	5	4	7.3	26	20	51	7.1	7.1	7.1	7.1
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	4						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	4						1.0	1.0	1.0	1.0
Toluene	µg/L	4						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	4						1.0	1.5	1.3	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	4						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	4						1.0	1.0	1.0	1.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	4						0.1	0.2	0.1	0.5
Bloody Brook (Station W9, Site 707)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	1	1	3.4E-02	3.4E-02	3.4E-02	0				
Sulfate	mg/L	1	1	287	287	287	287				
Total alkalinity	mg/L	1	1	263	263	263	263				
Chloride	mg/L	1	1	233	233	233	233				
Total inorganic carbon	mg/L	1	1	68	68	68	68				
Total organic carbon	mg/L	1	1	6.8	6.8	6.8	6.8				
Total suspended solids	mg/L-sus	1	1	5.0	5.0	5.0	5.0				
Conductivity	umh	1	1	1,300	1,300	1,300	1,300				
Discharge instantaneous	cfs	1	1	0.7	0.7	0.7	0.7				
Dissolved oxygen, wt/vol	mg/L	1	1	11	11	11	11				
pH	pH	1	1	8.0	8.0	8.0	8.0				
Temperature	degC	1	1	19	19	19	19				
Hardness[v]	mg/L ($CaCO_3$)	1		449	449	449	449				
Total Metals											
Cadmium	µg/L	1						2.0	2.0	2.0	2.0
Calcium	µg/L	1	1	180,000	180,000	180,000	180,000				
Chromium	µg/L	1						4.0	4.0	4.0	4.0
Copper	µg/L	1	1	1.9	1.9	1.9	1.9				
Lead	µg/L	1						1.0	1.0	1.0	1.0
Methylmercury – total	ng/L	1	1	4.7E-02	4.7E-02	4.7E-02	0				
Mercury – total	ng/L	1	1	3.6	3.6	3.6	3.6				
Nickel	µg/L	1						8.0	8.0	8.0	8.0
Sodium	µg/L	1	1	118,000	118,000	118,000	118,000				
Zinc	µg/L	1						11	11	11	11
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	1						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	1						1.0	1.0	1.0	1.0
Toluene	µg/L	1						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	1						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
1,3,5-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	1						0.5	0.5	0.5	0.5
Sawmill Creek (Station W11, Site 709)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	1	1	5.8E-02	5.8E-02	5.8E-02	0.1				
Sulfate	mg/L	1	1	479	479	479	479				
Total alkalinity	mg/L	1	1	271	271	271	271				
Chloride	mg/L	1	1	205	205	205	205				
Total inorganic carbon	mg/L	1	1	67	67	67	67				
Total organic carbon	µg/L	1	1	5.2	5.2	5.2	5.2				
Total suspended solids	mg/L-sus	1						4.0	4.0	4.0	4.0
Conductivity	umh	1	1	1,400	1,400	1,400	1,400				
Discharge instantaneous	cfs	1	1	0.5	0.5	0.5	0.5				
Dissolved oxygen, wt/vol	mg/L	1	1	7.6	7.6	7.6	7.6				
pH	pH	1	1	7.9	7.9	7.9	7.9				
Temperature	degC	1	1	20	20	20	20				
Hardness[u]	mg/L ($CaCO_3$)	1		552	552	552	552				
Total Metals											
Cadmium	µg/L	1						2.0	2.0	2.0	2.0
Calcium	µg/L	1	1	233,000	233,000	233,000	233,000				
Chromium	µg/L	1						4.0	4.0	4.0	4.0
Copper	µg/L	1						1.0	1.0	1.0	1.0
Lead	µg/L	1						1.0	1.0	1.0	1.0
Methylmercury – total	ng/L	1	1	0.2	0.2	0.2	0.2				
Mercury – total	ng/L	1	1	2.0	2.0	2.0	2.0				
Nickel	µg/L	1						8.0	8.0	8.0	8.0
Sodium	µg/L	1	1	103,000	103,000	103,000	103,000				
Zinc	µg/L	1						11	11	11	11
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	1						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	1						1.0	1.0	1.0	1.0
Toluene	µg/L	1						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	1						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
1,2,3-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	1						0.5	0.5	0.5	0.5
Geddes Brook (Site 710)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	11	11	0.3	0.6	0.6	1.6				
Sulfate	mg/L	11	11	400	555	543	742				
Total alkalinity	mg/L	11	11	238	248	248	269				
Chloride	mg/L	11	11	514	730	718	930				
Total inorganic carbon	mg/L	11	11	59	65	64	75				
Total organic carbon	mg/L	11	11	1.7	5.5	4.0	23				
Conductivity	umho/c	8	8	2,640	3,589	3,545	4,600				
Total suspended solids	mg/L-sus	11	11	4.0	13	12	18				
Discharge instantaneous	cfs	8	8	8.2	11	10	13				
Dissolved oxygen, wt/vol	mg/L	6	6	9.8	11	11	13				
pH	pH	7	7	7.6	7.8	7.8	8.0				
Temperature	degC	8	8	5.2	12	11	22				
Total Metals											
Cadmium	µg/L	11						2.0	2.0	2.0	2
Calcium	µg/L	11	11	316,000	404,182	401,341	445,000				
Chromium	µg/L	11						2.0	3.3	3.1	4
Copper	µg/L	11	4	2.1	2.6	2.5	3.8	1.0	1.7	1.5	3
Iron	µg/L	1	1	565	565	565	565				
Lead	µg/L	11	2	1.0	1.1	1.1	1.2	1.0	1.0	1.0	1
Magnesium	µg/L	4	4	44,100	45,278	45,272	45,913				
Manganese	µg/L	1	1	121	121	121	121				
Methylmercury – total	ng/L	11	11	0.3	0.5	0.4	0.7				
Mercury – total	ng/L	12	12	30	100	79	218				
Nickel	µg/L	11						5.0	6.6	6.5	8
Sodium	µg/L	11	11	194,000	266,727	264,101	331,000				
Zinc	µg/L	11	10	4.3	11		23	17	17	17	17
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	8						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	8						1.0	1.0	1.0	1.0
Toluene	µg/L	8	1	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	8						1.0	2.0	0.9	3.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	8						0.1	0.3	0.2	0.5
Lake Outlet (Station W12)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	3	3	0.6	1.6	1.4	2.5				
Sulfate	mg/L	3	3	130	144	144	156				
Total alkalinity	mg/L	3	3	142	164	161	207				
Chloride	mg/L	3	3	281	399	389	460				
Total inorganic carbon	mg/L	3	3	35	41	41	54				
Total organic carbon	mg/L	3	3	4.9	5.7	5.7	7.2				
Total suspended solids	mg/L-sus	3	2	4.0	6.3	5.6	11	4.0	4.0	4.0	4.0
Conductivity	umho/c	14	14	900	1,821	1,759	2,250				
Dissolved oxygen, wt/vol	mg/L	17	17	3.8	8.8	8.4	15				
pH	pH	11	11	7.6	7.8	7.8	8.2				
Temperature	degC	14	14	5.0	16	13	23				
Hardness[b]	mg/L (CaCO3)	3		265	361	352	452				
Total Metals											
Cadmium	µg/L	3						2.0	2.0	2.0	2.0
Calcium	µg/L	3	3	106,000	144,333	140,965	181,000				
Chromium	µg/L	3	1	18	18	18	18	4.0	4.0	4.0	4.0
Copper	µg/L	3						1.0	2.0	1.8	3.0
Lead	µg/L	3						1.0	1.0	1.0	1.0
Methylmercury – total	ng/L	3	3	0.2	0.4	0.4	0.8				
Mercury – total	ng/L	3	3	3.9	4.6	4.5	5.6				
Nickel	µg/L	3	1	10	10	10	10	7.0	7.5	7.5	8.0
Sodium	µg/L	3	3	131,000	186,667	181,670	230,000				
Zinc	µg/L	3	1	14	14	14	14	4.2	9.9	8.1	16
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	4						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	2						1.0	1.0	1.0	1.0
Toluene	µg/L	2						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	2						1.0	2.0	1.7	3.0

Table D-2. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	2						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	2						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	2						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	2						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	2						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	2						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	2						1	1	1	1
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	2						0.1	0.3	0.2	0.5

Note [a] Low-flow events had to meet the following criteria: 48 hours had to pass from the end of a rain event; flow and turbidity were judged to be baseline; and level of lake was not high enough to affect tributary flow rates.

[b] Hardness values not in database. Summary of hardness values are located in Exponent's Appendix B as a hard copy only.

Table D-3. Summary Statistics for Surface Water Collected from Metro Discharge and Onondaga Lake Tributaries During Intermediate-Flow Conditions in 1992[a]

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Metro Outfall (Station W3E, Site 270)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	2	2	20	21	21	22				
Sulfate	mg/L	2	2	158	165	165	172				
Total alkalinity	mg/L	2	2	253	261	261	269				
Chloride	mg/L	2	2	158	265	242	372				
Total inorganic carbon	mg/L	2	2	67	71	70	74				
Total organic carbon	mg/L	2	2	25	28	28	32				
Total suspended solids	mg/L-sus	2	2	4.0	9.5	7.7	15				
Conductivity	umho/c	1	1	2,000	2,000	2,000	2,000				
Dissolved oxygen, wt/vol	mg/L	1	1	9.1	9.1	9.1	9.1				
pH	pH	1	1	7.2	7.2	7.2	7.2				
Temperature	degC	1	1	12	12	12	12				
Hardness[b]	mg/L ($CaCO_3$)	1		247	247	247	247				
Total Metals											
Cadmium	µg/L	1						2.0	2.0	2.0	2.0
Calcium	µg/L	1	1	98,900	98,900	98,900	98,900				
Chromium	µg/L	1						4.0	4.0	4.0	4.0
Copper	µg/L	1	1	4.2	4.2	4.2	4.2				
Lead	µg/L	1	1	4.8	4.8	4.8	4.8				
Methylmercury – total	ng/L	2	2	0.6	1.0	0.9	1				
Mercury – total	ng/L	2	2	18	20	20	23				
Nickel	µg/L	1						7.0	7.0	7.0	7.0
Sodium	µg/L	1	1	232,000	232,000	232,000	232,000				
Zinc	µg/L	1	1	40	40	40	40				
Ley Creek (Station W6, Site 700)											
Conventional Analytes											
Ammonia-nitrogen	mg/L	7	7	0.3	0.5	0.5	0.9				
Sulfate	mg/L	7	7	107	148	146	179				
Total alkalinity	mg/L	7	7	174	226	223	283				
Chloride	mg/L	7	7	154	246	237	386				
Total inorganic carbon	mg/L	7	7	44	59	58	76				
Total organic carbon	mg/L	7	7	9.2	13	12	19				
Total suspended solids	mg/L-sus	7	5	10	20	18	42	4.0	4.0	4.0	4.0
Conductivity	umh	7	7	810	1,448	1,406	1,860				
Discharge instantaneous	cfs	5	5	11	24	21	42				
Dissolved oxygen, wt/vol	mg/L	6	6	5.5	7.8	7.4	11				
pH	pH	7	6	7.3	7.4	7.4	7.5				
Temperature	degC	7	7	2.0	11	8.8	19				
Hardness[b]	mg/L ($CaCO_3$)	7		233	325	318	443				

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Total Metals											
Cadmium	µg/L	7						2.0	2.0	2.0	2.0
Calcium	µg/L	7	7	71,400	115,629	113,346	143,000				
Chromium	µg/L	7	1	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0
Copper	µg/L	7	5	2.9	7.4	6.5	13	3.0	3.0	3.0	3.0
Iron	µg/L	1	1	586	586	586	586				
Lead	µg/L	7	7	1.6	4.7	4.1	8.6				
Magnesium	µg/L	3	3	13,422	20,839	20,056	25,781				
Manganese	µg/L	1	1	100	100	100	100				
Methylmercury – total	ng/L	6	6	9.1E-02	0.1	0.1	0.2				
Mercury – total	ng/L	6	6	2.6	6.1	5.1	11				
Nickel	µg/L	7						5.0	7.0	6.9	8.0
Sodium	µg/L	7	7	86,633	131,662	125,666	231,000				
Zinc	µg/L	7	7	24	30	30	43				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	5						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	5	1	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.0
Toluene	µg/L	5						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	5						1.0	1.4	1.2	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	5						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	5						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	5						0.1	0.2	0.1	0.5
Ninemile Creek (Station W10, Site 701)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	9	9	0.3	0.4	0.4	0.4				
Sulfate	mg/L	9	9	154	200	198	237				
Total alkalinity	mg/L	9	9	173	203	202	237				
Chloride	mg/L	9	9	544	665	661	742				
Total inorganic carbon	mg/L	9	9	21.5	48	46	65				

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Total organic carbon	mg/L	9	9	3.34	6	6	16				
Total suspended solids	mg/L	9	9	4	53	20	290				
Conductivity	umh	6	6	1,700	2,510	2,466	3,160				
Discharge instantaneous	cfs	4	4		104	138	142				
Dissolved oxygen, wt/vol	mg/L	6	6	9.2	12	12	14				
pH	pH	6	4	7.6	7.7	7.7	7.9				
Temperature	degC	6	6	3.3	7.4	6.2	17				
Hardness[b]	mg/L ($CaCO_3$)	8		582	777	772	895				
Total Metals											
Cadmium	µg/L	9						2.0	2.0	2.0	2.0
Calcium	µg/L	9	9	233,000	301,556	299,907	341,000				
Chromium	µg/L	9	2	7.7	9.9	9.7	12	2.0	3.7	3.6	4.0
Copper	µg/L	9	6	1.5	6.4	5.1	16	3.0	4.4	4.0	7.3
Lead	µg/L	9	6	1.2	7.2	4.9	22	1.0	1.7	1.5	3.1
Magnesium	µg/L	2	2	33,480	34,465	34,451	35,450				
Methylmercury – total	ng/L	9	9	7.4E-02	0.3	0.2	1.0				
Mercury – total	ng/L	10	10	8.3	36	25	88				
Nickel	µg/L	9	3	8.4	9.0	9.0	9.5	4.0	5.7	5.5	7.0
Sodium	µg/L	9	9	131,000	178,444	176,555	213,000				
Zinc	µg/L	9	6	14	33	27	88	2.0	3.1	2.8	5.4
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	6						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	6						1.0	1.0	1.0	1.0
Toluene	µg/L	6						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	6						1.0	1.3	1.2	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	6						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	6						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	6						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	6						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	6						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	6						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	6						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	6						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	6						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	6						0.1	0.2	0.1	0.5

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
East Flume (Station W7, Site 703)											
Conventional Analytes											
Ammonia-nitrogen	mg/L	5	5	0.9	2.8	2.2	5.0				
Carbon dioxide	mg/L	1						1.0	1.0	1.0	1.0
Sulfate	mg/L	5	5	111	320	278	452				
Total alkalinity	mg/L	5	5	168	215	213	244				
Chloride	mg/L	5	5	208	430	406	563				
Total inorganic carbon	mg/L	5	5	28	52	50	65				
Total organic carbon	mg/L	5	5	7.5	11	11	15				
Conductivity	umh	3	3	1,350	1,777	1,698	2,570				
Discharge instantaneous	cfs	1	1	1.3	1.3	1.3	1.3				
Dissolved oxygen, wt/vol	mg/L	2	2	5.5	5.9	5.9	6.3				
pH	pH	3	1	8.5	8.5	8.5	8.5				
Total suspended solids	mg/L-sus	5	5	8	65	21	274				
Temperature	degC	3	3	8.9	17	15	21				
Hardness[b]	mg/L ($CaCO_3$)	5		312	436	427	550				
Total Metals											
Cadmium	µg/L	5						2.0	2.0	2.0	2.0
Calcium	µg/L	5	5	125,000	154,200	153,089	179,000				
Chromium	µg/L	5	3	2.2	5.0	4.3	8.3	2.0	3.0	2.8	4.0
Copper	µg/L	5	5	5.3	9.0	8.1	18				
Lead	µg/L	5	5	1.4	6.9	2.7	28				
Magnesium	µg/L	2	2	31,900	32,732	32,721	33,563				
Methylmercury – total	ng/L	5	5	0.7	1.6	1.4	2.7				
Mercury – total	ng/L	5	5	46.7	96	91	129				
Nickel	µg/L	5	2	7.1	7.9	7.9	8.7	5.0	6.3	6.3	7.0
Sodium	µg/L	5	5	111,000	280,733	254,728	396,667				
Zinc	µg/L	5	5	59	122	112	179				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	5						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	5						1.0	1.0	1.0	1.0
Toluene	µg/L	5						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	5						1.0	1.4	1.2	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	5	2	2.2	2.2	2.2	2.3	1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	5	2	2.2	2.2	2.2	2.3	1.0	1.0	1.0	1.0

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
1,2,4-Trichlorobenzene	µg/L	5	2	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	5	2	1.0	1.0	1.0	1	1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	5						0.1	0.1	0.1	0.1
Harbor Brook (Station W5, Site 704)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	3	3	9.3E-02	0.1	0.1	0.2				
Sulfate	mg/L	3	3	211	277	265	399				
Total alkalinity	mg/L	3	3	194	211	210	225				
Chloride	mg/L	3	3	124	181	166	293				
Total inorganic carbon	mg/L	3	3	48	58	58	64				
Total organic carbon	mg/L	3	3	3.0	9.2	7.4	16				
Total suspended solids	mg/L	3	2	7.5	19	15	31	4.0	4.0	4.0	4.0
Conductivity	umh	1	1	2,040	2,040	2,040	2,040				
Discharge instantaneous	cfs	1									
Dissolved oxygen, wt/vol	mg/L	1	1	9.0	9.0	9.0	9.0				
pH	pH	1	1	8.1	8.1	8.1	8.1				
Temperature	degC	1	1	16	16	16	16				
Hardness[b]	mg/L ($CaCO_3$)	3		479	580	569	744				
Total Metals											
Cadmium	µg/L	3						2.0	2.0	2.0	2.0
Calcium	µg/L	3	3	146,000	178,333	174,426	233,000				
Chromium	µg/L	3	2	5	5.4	5.3	5.7	2.0	2.0	2.0	2.0
Copper	µg/L	3	1	6.7	6.7	6.7	6.7	2.0	2.5	2.4	3.0
Lead	µg/L	3	2	1.9	4.3	3.6	6.7	1.0	1.0	1.0	1.0
Magnesium	µg/L	3	3	27,700	32,641	32,288	39,312				
Methylmercury – total	ng/L	3	3	0.3	0.6	0.6	0.9				
Mercury – total	ng/L	3	3	4.4	6.3	6.0	8.6				
Nickel	µg/L	3						5.0	6.3	6.3	7.0
Sodium	µg/L	3	3	66,700	88,267	84,272	128,000				
Zinc	µg/L	3	3	3.9	15	11	29				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	3						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	3						1.0	1.0	1.0	1.0
Toluene	µg/L	3						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	3						1.0	1.7	1.4	3.0

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	3						0.1	0.1	0.1	0.1
Tributary 5A (Station W8, Site 705)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	3	3	0.1	0.2	0.2	0.2				
Sulfate	mg/L	3	3	62	92	88	122				
Total alkalinity	mg/L	3	3	102	109	108	119				
Chloride	mg/L	3	3	216	272	267	338				
Total inorganic carbon	mg/L	3	3	26	28	28	31				
Total organic carbon	mg/L	3	3	4.9	6.4	6.3	7.9				
Total suspended solids	mg/L-sus	3	3	2.8	52	19	135				
Conductivity	umho/c	2	2	1,440	1,445	1,445	1,450				
Discharge instantaneous	cfs	1	1	2.2	2.2	2.2	2.2				
Dissolved oxygen, wt/vol	mg/L	2	2	5.0	8.3	7.6	12				
pH	pH	2	1	8.3	8.27	8.27	8.3				
Temperature	degC	2	2	5.1	15	11	25				
Hardness[b]	mg/L ($CaCO_3$)	3		248	271	271	283				
Total Metals											
Cadmium	µg/L	3	1	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Calcium	µg/L	3	3	79,100	88,022	87,786	93,167				
Chromium	µg/L	3	3	9.5	69	45	119				
Copper	µg/L	3	3	5.1	20	16	30				
Lead	µg/L	3	3	2.3	9.2	7.2	14				
Magnesium	µg/L	3	3	12,200	12,697	12,692	13,080				
Methylmercury – total	ng/L	3	3	0.1	0.8	0.5	1.6				
Mercury – total	ng/L	3	3	9.9	53	38	90				
Nickel	µg/L	3	3	30	61	55	93				
Sodium	µg/L	3	3	118,000	135,444	134,774	150,333				
Zinc	µg/L	3	3	6.7	76	43	117				

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	3						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	3						1.0	1.0	1.0	1.0
Toluene	µg/L	3						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	3						1.0	1.7	1.4	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	3						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	3						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	2						0.1	0.1	0.1	0.1
Onondaga Creek (Station W4, Site 706)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	9	9	6.0E-02	0.2	0.2	0.4				
Sulfate	mg/L	9	9	105	157	153	225				
Total alkalinity	mg/L	9	9	212	237	236	269				
Chloride	mg/L	9	9	480	680	662	1,040				
Total inorganic carbon	mg/L	9	9	49	62	62	73				
Total organic carbon	mg/L	9	9	3.16	11	6.4	59				
Total suspended solids	mg/L	9	9	15	27	25	50				
Conductivity	umh	12	12	1,970	2,562	2,498	3,610				
Discharge instantaneous	cfs	1	1	152	152	152	152				
Dissolved oxygen, wt/vol	mg/L	10	10	7.6	9.0	8.9	12				
pH	pH	12	10	7.5	7.7	7.7	7.9				
Temperature	degC	12	12	2.2	13	11	18				
Hardness[b]	mg/L ($CaCO_3$)	9		255	300	299	359				
Total Metals											
Cadmium	µg/L	9						2.0	2.0	2.0	2.0
Calcium	µg/L	9	9	94,000	112,778	112,141	138,000				
Chromium	µg/L	9	1	2.2	2.2	2.2	2.2	2.0	3.0	2.8	4.0
Copper	µg/L	9	6	2.7	6.2	5.4	11	1.0	2.3	2.1	3.0
Iron	µg/L	1	1	209	209	209	209				

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Lead	µg/L	9	6	1.3	7.3	4.5	17	1.0	2.5	1.8	5.6
Magnesium	µg/L	2	2	19,096	20,335	20,297	21,573				
Manganese	µg/L	1	1	42	42	42	42				
Methylmercury – total	ng/L	8	8	7.1E-02	0.5	0.3	1.4				
Mercury – total	ng/L	9	9	1.1	29	9.3	125				
Nickel	µg/L	9						4.0	5.7	5.5	8.0
Sodium	µg/L	9	9	262,000	370,556	362,576	569,000				
Zinc	µg/L	9	8	3.6	27	15	85	17	17	17	17
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	7						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	7						1.0	1.0	1.0	1.0
Toluene	µg/L	7						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	7						1.0	1.6	1.4	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	7						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	7						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	7						0.1	0.2	0.1	0.5
Geddes Brook (Site 710)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	5	5	0.4	0.4	0.4	0.5				
Sulfate	mg/L	4	4	344	433	421	595				
Total alkalinity	mg/L	5	5	202	221	220	253				
Chloride	mg/L	5	5	441	682	653	913				
Total inorganic carbon	mg/L	4	4	53	60	60	67				
Total organic carbon	mg/L	5	5	3.0	5.3	4.9	9.6				
Conductivity	umho/c	3	3	1,840	2,527	2,472	3,020				
Total suspended solids	mg/L-sus	5	5	8	64	37	170				
Discharge instantaneous	cfs	1	1	12	12	12	12				
Dissolved oxygen, wt/vol	mg/L	1	1	9.4	9.4	9.4	9.4				
pH	pH	1	1	7.8	7.8	7.8	7.8				

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Temperature	degC	3	3	3.3	8.3	6.2	17				
Total Metals											
Cadmium	µg/L	5						2.0	2.0	2.0	2.0
Calcium	µg/L	5	5	263,000	304,000	302,787	348,000				
Chromium	µg/L	5						2.0	3.6	3.5	4.0
Copper	µg/L	5	4	5.7	6.2	4.9	7.0	2.0	2.0	2.0	2.0
Lead	µg/L	5	4	1	4.1	3.4	5.6	1.0	1.0	1.0	1.0
Magnesium	µg/L	1	1	36,274	36,274	36,274	36,274				
Methylmercury – total	µg/L	5	5	7.7E-02	0.5	0.4	1.0				
Mercury – total	µg/L	4	4	18	154	89	413				
Nickel	µg/L	5	1	5	5.0	5.0	5.0	4.0	5.8	5.6	7.0
Sodium	µg/L	5	5	180,000	272,200	254,627	397,000				
Zinc	µg/L	5	5	16	31	29	38				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	5						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	5						1.0	1.0	1.0	1.0
Toluene	µg/L	5						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	5						1.0	1.4	1.2	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	5						0.1	0.2	0.1	0.5
Lake Outlet (Station W12)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	9	9	1.2	2.4	2.3	3.0				
Sulfate	mg/L	9	9	130	150	149	205				
Total alkalinity	mg/L	9	9	162	177	176	199				
Chloride	mg/L	9	9	424	473	473	499				
Total inorganic carbon	mg/L	9	9	41	46	46	50				
Total organic carbon	mg/L	9	9	4.7	7.2	7.0	9.5				
Total suspended solids	mg/L-sus	9	3	5.5	6.8	6.8	8.0	4.0	4.0	4.0	4.0
Conductivity	umho/c	23	23	1,840	2,009	2,007	2,140				

Table D-3. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Dissolved oxygen, wt/vol	mg/L	22	22	4.7	7.5	7.4	10				
pH	pH	23	23	7.5	7.7	7.7	8				
Temperature	degC	23	23	8.5	16	15	20				
Hardness[b]	mg/L (CaCO3)	10		385	425	424	486				
Total Metals											
Cadmium	µg/L	10						2.0	2.0	2.0	2.0
Calcium	µg/L	10	10	101,000	156,700	154,965	178,000				
Chromium	µg/L	10						2.0	3.6	3.5	4.0
Copper	µg/L	10						1.0	2.9	2.6	5.5
Lead	µg/L	10	1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.4
Magnesium	µg/L	2	2	20,792	22,675	22,597	24,558				
Methylmercury – total	ng/L	9	9	0.1828	1.2	0.8	2.9				
Mercury – total	ng/L	9	9	2.21784	9.7	6.2	46				
Nickel	µg/L	10	1	17	17	17	17	5.0	6.7	6.6	8.0
Sodium	µg/L	10	10	100,000	200,300	195,462	231,000				
Zinc	µg/L	10	8	3.3	7.0	6.6	13	6.3	6.3	6.3	6.3
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	7						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	7						1.0	1.0	1.0	1.0
Toluene	µg/L	7						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	7						1.0	1.6	1.4	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	7						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	7						0.1	0.1	0.1	0.5

Note: [a] Intermediate-flow events are described in the Lake Onondaga RI.

[b] Hardness values not in database. Summary of hardness values are located in Exponent's Appendix B as a hard copy only.

Table D-4. Summary Statistics for Surface Water Collected from Metro Discharge and Onondaga Lake Tributaries During High-Flow Conditions in 1992[a]

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Metro Outfall (Station W3E, Site 270)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	7	7	8.1	12	12	15				
Sulfate	mg/L	7	7	122	174	172	205				
Total alkalinity	mg/L	7	7	174	217	212	343				
Chloride	mg/L	7	7	148	337	277	752				
Total inorganic carbon	mg/L	7	7	49	57	57	68				
Total organic carbon	mg/L	7	7	17	19	19	22				
Total suspended solids	mg/L-sus	7	6	4	14	13	20	4.0	4.0	4.0	4.0
Hardness[b]	mg/L ($CaCO_3$)	7		230	351	320	659				
Total Metals											
Cadmium	µg/L	7						2.0	2.0	2.0	2.0
Calcium	µg/L	7	7	76,400	137,152	123,447	264,000				
Chromium	µg/L	7	3	1.9	3.4	3.2	4.3	2.0	3.0	2.8	4.0
Copper	µg/L	7	7	5.2	8.7	8.3	13				
Lead	µg/L	7	5	1.1	1.7	1.6	2.2	2.0	2.5	2.4	2.9
Magnesium	µg/L	1	1	14,280	14,280	14,280	14,280				
Methylmercury – total	ng/L	8	8	0.9	1.2	1.2	1.5				
Mercury – total	ng/L	8	8	13	44	35	104				
Nickel	µg/L	7	7	5.2	9.3	8.8	15				
Sodium	µg/L	7	7	95,800	154,005	143,944	252,000				
Zinc	µg/L	7	7	25	43	41	71				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	8						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	8						1.0	1.0	1.0	1.0
Toluene	µg/L	8						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	8						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	8						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	8						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	8						1.0	1.0	1.0	1.0

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	8						5.0E-02	0.2	8.9E-02	0.5
Ley Creek (Station W6, Site 700)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	5	5	0.2	0.4	0.4	0.7				
Sulfate	mg/L	5	5	52	118	108	194				
Total alkalinity	mg/L	5	5	98	170	164	215				
Chloride	mg/L	5	5	82	238	207	394				
Total inorganic carbon	mg/L	5	5	27	43	41	58				
Total organic carbon	mg/L	5	5	8.1	9.2	9.2	10				
Total suspended solids	mg/L-sus	5	5	12	92	63	185				
Hardness[b]	mg/L ($CaCO_3$)	5		150	242	234	297				
Total Metals											
Cadmium	µg/L	5						2.0	2.0	2.0	2.0
Calcium	µg/L	5	5	60,100	96,820	93,813	119,000				
Chromium	µg/L	5	3	8.2	12	11	19	4.0	4.0	4.0	4.0
Copper	µg/L	5	5	6.8	23	18	58				
Lead	µg/L	5	5	5.7	31	19	95				
Methylmercury – total	ng/L	4	2	0.1	0.9	0.4	1.6	1.2E-02	2.4E-02	2.1E-02	3.6E-02
Mercury – total	ng/L	4	4	3.9	16	11	42				
Nickel	µg/L	5	1	11	11	11	11	4.0	4.5	4.5	5.0
Sodium	µg/L	5	5	45,500	131,640	113,398	220,000				
Zinc	µg/L	5	5	39	84	73	182				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	4						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	4						1.0	1.0	1.0	1.0
Toluene	µg/L	4						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	4						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	4						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
1,3,5-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	4						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	4						5.0E-02	0.3	0.2	0.5
Ninemile Creek (Station W10, Site 701)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	5	5	0.1	0.2	0.2	0.4				
Sulfate	mg/L	5	5	117	190	185	235				
Total alkalinity	mg/L	5	5	174	206	204	250				
Chloride	mg/L	5	5	370	466	457	604				
Total inorganic carbon	mg/L	5	5	31	48	47	62				
Total organic carbon	mg/L	5	5	4.4	13	7.8	43				
Total suspended solids	mg/L-sus	5	5	11	85	55	234				
Hardness[b]	mg/L ($CaCO_3$)	5		522	649	640	844				
Total Metals											
Cadmium	µg/L	5	1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0
Calcium	µg/L	5	5	183,000	241,467	238,094	284,333				
Chromium	µg/L	5	2	3.0	4.7	4.4	6.4	2.0	2.7	2.5	4.0
Copper	µg/L	5	5	1.5	6.5	4.9	16.3				
Lead	µg/L	5	3	1.0	9.3	5.3	19.5	3.4	4.9	4.6	6.3
Magnesium	µg/L	2	2	24,412	28,506	28,210	32,600				
Methylmercury – total	ng/L	4	4	0.2	0.6	0.4	1.4				
Mercury – total	ng/L	5	5	10	40	30	73				
Nickel	µg/L	5	1	9.1	9.1	9.1	9.1	5.0	5.8	5.6	8
Sodium	µg/L	5	5	91,800	126,493	124,237	157,667				
Zinc	µg/L	5	3	17	43	36	72	20	21	21	22
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	5						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	5						1.0	1.0	1.0	1.0
Toluene	µg/L	5						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	5						1.0	1.4	1.2	3.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.2

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Dichlorobenzenes (Sum)	µg/L	5						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	5						1	1	1	1
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	5						5.0E-02	0.1	7.9E-02	0.5
East Flume (Station W7, Site 703)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	4	4	1.6	3.9	3.6	5.0				
Sulfate	mg/L	4	4	305	420	414	472				
Total alkalinity	mg/L	4	4	173	204	203	217				
Chloride	mg/L	4	4	461	626	615	729				
Total inorganic carbon	mg/L	4	4	47	54	53	56				
Total organic carbon	mg/L	4	4	8.0	11	11	13				
Total suspended solids	mg/L-sus	4	3	5.0	8.0	7.3	13	4.0	4.0	4.0	4.0
Hardness[b]	mg/L ($CaCO_3$)	4		401	467	464	544				
Total Metals											
Cadmium	µg/L	4						2.0	2.0	2.0	2.0
Calcium	µg/L	4	4	159,667	174,917	174,602	185,000				
Chromium	µg/L	4						4.0	4.0	4.0	4.0
Copper	µg/L	4	4	2.2	4.5	3.9	7.5				
Lead	µg/L	4	3	1.3	1.6	1.6	2.0	1.0	1.0	1.0	1.0
Magnesium	µg/L	1	1	28,477	28,477	28,477	28,477				
Methylmercury – total	ng/L	4	4	0.67428	1.2	1.1	1.7				
Mercury – total	ng/L	4	4	31	144	117	198				
Nickel	µg/L	4	2	6	6.3	6.2	6.5	7.0	7.5	7.5	8
Sodium	µg/L	4	4	244,000	412,917	397,963	490,000				
Zinc	µg/L	4	4	53	109	102	130				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	4						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	4						1.0	1.0	1.0	1.0
Toluene	µg/L	4						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	4	3	1.6	1.7	1.7	1.8	1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	4						1.0	1.0	1.0	1.0

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
1,2-Dichlorobenzene	µg/L	4	3	1.1	2.7	2.2	5.2	1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	4	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	4	4	7.8	15	14	20				
Dichlorobenzenes (Sum)	µg/L	4	4	13	17	17	22				
Trichlorobenzenes (Sum)	µg/L	4	3	1.9	2.2	2.1	2.4	1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	4	3	1.9	2.2	2.1	2.4	1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	4						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	4						5.0E-02	0.4	0.3	0.5
Harbor Brook (Station W5, Site 704)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	8	7	8.0E-02	0.6	0.4	2	0.3	0.3	0.3	0.3
Sulfate	mg/L	8	8	43	247	212	397				
Total alkalinity	mg/L	8	8	85	186	178	244				
Chloride	mg/L	8	8	37	196	173	306				
Total inorganic carbon	mg/L	8	8	23	47	45	66				
Total organic carbon	mg/L	8	7	5.4	8.0	7.8	9.6	1.0	1.0	1.0	1.0
Total suspended solids	mg/L-sus	8	7	8	91	61	226	4.0	4.0	4.0	4.0
Hardness[b]	mg/L ($CaCO_3$)	8		135	413	356	742				
Total Metals											
Cadmium	µg/L	8						2.0	2.0	2.0	2.0
Calcium	µg/L	8	8	54,200	144,863	131,110	232,000				
Chromium	µg/L	8	4	3.5	7.1	6.7	9.1	2.0	3.5	3.4	4
Copper	µg/L	8	8	2.5	22	16	48				
Lead	µg/L	8	6	2.7	35	22	63	5.1	5.2	5.2	5.3
Magnesium	µg/L	3	3	23,850	33,229	32,466	39,626				
Methylmercury – total	ng/L	9	9	0.3	2.36374	1.47431	9.30572				
Mercury – total	ng/L	9	9	2.651	41	24	147				
Nickel	µg/L	8	4	7	10	9.8	17	4	5.5	5.3	8
Sodium	µg/L	8	8	21,300	118,200	100,339	240,000				
Zinc	µg/L	8	8	15	97	77	188				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	9						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	9						1.0	1.0	1.0	1.0
Toluene	µg/L	9	1	2.1	2.1	2.1	2.1	1.0	1.0	1.0	1.0

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Xylene (Total)	µg/L	9	1	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	9						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	9	1	1	1	1	1	1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	9						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	9	2	5.3	6.3	6.2	7.2	1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	9	2	6.3	6.8	6.7	7.2	1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	9						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	9						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	9						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	9						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	9						5.0E-02	0.2	0.1	0.5
Tributary 5A (Station W8, Site 705)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	9	7	2.7E-02	7.8E-02	6.6E-02	0.1	1.0E-02	0.2	5.5E-02	0.3
Sulfate	mg/L	9	9	42	87	83	119				
Total alkalinity	mg/L	9	9	97	150	143	251				
Chloride	mg/L	9	9	107	233	222	376				
Total inorganic carbon	mg/L	9	9	15	24	23	35				
Total organic carbon	mg/L	9	8	5.3	7.4	7.3	9.2	1.0	1.0	1.0	1.0
Total suspended solids	mg/L-sus	9	9	6	184	108	381				
Hardness[b]	mg/L ($CaCO_3$)	9		179	280	270	424				
Total Metals											
Cadmium	µg/L	9	1	3.2	3.2	3.2	3.2	2.0	2.0	2.0	2.0
Calcium	µg/L	9	9	71,600	105,137	102,205	147,000				
Chromium	µg/L	9	9	59	200	153	560				
Copper	µg/L	9	9	12	49	37	125				
Lead	µg/L	9	7	6	33	27	55	7.3	7.9	7.9	8.5
Magnesium	µg/L	3	3	12,150	13,739	13,681	15,220				
Methylmercury – total	ng/L	9	9	6	94	54	307				
Mercury – total	ng/L	9	9	56	140	123	327				
Nickel	µg/L	9	9	56	140	123	327				
Sodium	µg/L	9	9	58,700	115,830	111,464	157,000				
Zinc	µg/L	9	8	12	119	90	259	45	45	45	45

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	9	1	60	60	60	60	1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	9						1.0	1.1	1.1	2.0
Toluene	µg/L	9	1	5.1	5.1	5.1	5.1	1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	9	2	0.7	1.6	1.3	2.4	1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	9						1.0	1.1	1.1	2.0
1,2-Dichlorobenzene	µg/L	9						1.0	1.1	1.1	2.0
1,3-Dichlorobenzene	µg/L	9						1.0	1.1	1.1	2.0
1,4-Dichlorobenzene	µg/L	9						1.0	1.1	1.1	2.0
Dichlorobenzenes (Sum)	µg/L	9						1.0	1.1	1.1	2.0
1,2,3-Trichlorobenzene	µg/L	9						1.0	1.1	1.1	2.0
1,2,4-Trichlorobenzene	µg/L	9						1.0	1.1	1.1	2.0
1,3,5-Trichlorobenzene	µg/L	9						1.0	1.1	1.1	2.0
Trichlorobenzenes (Sum)	µg/L	9						1.0	1.1	1.1	2.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	9						5.0E-02	0.2	0.1	0.5
Onondaga Creek (Station W4, Site 706)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	5	4	9.3E-02	0.2	0.1	0.4	0.3	0.3	0.3	0.3
Sulfate	mg/L	5	5	114	140	140	156				
Total alkalinity	mg/L	5	5	135	229	222	288				
Chloride	mg/L	5	5	372	657	627	989				
Total inorganic carbon	mg/L	5	5	33	58	56	70				
Total organic carbon	mg/L	5	5	3.1	4.3	4.2	5.3				
Total suspended solids	mg/L-sus	5	4	9	19	16	35	4.0	4.0	4.0	4.0
Hardness[b]	mg/L ($CaCO_3$)	10		235	337	330	407				
Total Metals											
Cadmium	µg/L	5						2.0	2.0	2.0	2.0
Calcium	µg/L	5	5	94,200	111,440	110,855	121,000				
Chromium	µg/L	5						2.0	3.6	3.5	4.0
Copper	µg/L	5	3	1.3	4.8	3.5	9.5	3.0	3.0	3.0	3.0
Lead	µg/L	5	3	1.3	6.8	3.8	16.4	1.0	1.0	1.0	1.0
Magnesium	µg/L	3	3	20,909	23,746	23,656	25,500				
Methylmercury – total	ng/L	5	4	9.2E-02	0.3	0.2	0.7	3.6E-02	3.6E-02	3.6E-02	3.6E-02
Mercury – total	ng/L	5	5	0.9	5.0	3.7	11.7113				

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Nickel	µg/L	5						4	6.2	6.0	8
Sodium	µg/L	5	5	225,000	381,400	365,790	566,000				
Zinc	µg/L	5	5	3.6	13	8.6	38				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	5						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	5						1.0	1.0	1.0	1.0
Toluene	µg/L	5						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	5						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	5						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	5						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	5						5.0E-02	0.2	0.1	0.5
Bloody Brook (Station W9, Site 707)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	1	1	6.1E-02	6.1E-02	6.1E-02	6.1E-02				
Sulfate	mg/L	1	1	45	45	45	45				
Total alkalinity	mg/L	1	1	122	122	122	122				
Chloride	mg/L	1	1	197	197	197	197				
Total inorganic carbon	mg/L	1	1	28	28	28	28				
Total organic carbon	mg/L	1	1	8.1	8.1	8.1	8.1				
Total suspended solids	mg/L-sus	1	1	174	174	174	174				
Hardness[b]	mg/L ($CaCO_3$)	1		187	187	187	187				
Total Metals											
Cadmium	µg/L	1	1	17	17	17	17				
Calcium	µg/L	1	1	74,700	74,700	74,700	74,700				
Chromium	µg/L	1	1	12	12	12	12				
Copper	µg/L	1	1	42	42	42	42				
Lead	µg/L	1	1	44	44	44	44				

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Methylmercury – total	ng/L	1	1	0.1	0.1	0.1	0.1				
Mercury – total	ng/L	1	1	47	47	47	47				
Nickel	µg/L	1	1	9.3	9.3	9.3	9.3				
Sodium	µg/L	1	1	108,000	108,000	108,000	108,000				
Zinc	µg/L	1	1	201	201	201	201				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	1						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	1						1.0	1.0	1.0	1.0
Toluene	µg/L	1						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	1						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	1						0.5	0.5	0.5	0.5
Sawmill Creek (Station W11, Site 709)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	1						1.0E-02	1.0E-02	1.0E-02	1.0E-02
Sulfate	mg/L	1	1	101	101	101	101				
Total alkalinity	mg/L	1	1	178	178	178	178				
Chloride	mg/L	1	1	343	343	343	343				
Total inorganic carbon	mg/L	1	1	48	48	48	48				
Total organic carbon	mg/L	1	1	7.1	7.1	7.1	7.1				
Total suspended solids	mg/L-sus	1	1	12	12	12	12				
Hardness[b]	mg/L ($CaCO_3$)	1		262	262	262	262				
Total Metals											
Cadmium	µg/L	1						2.0	2.0	2.0	2.0
Calcium	µg/L	1	1	105,000	105,000	105,000	105,000				
Chromium	µg/L	1						4.0	4.0	4.0	4.0

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Copper	µg/L	1	1	4.7	4.7	4.7	4.7				
Lead	µg/L	1	1	3.5	3.5	3.5	3.5				
Methylmercury – total	ng/L	1	1	0.13015	0.13015	0.13015	0.13015				
Mercury – total	ng/L	1	1	9.68911	9.68911	9.68911	9.68911				
Nickel	µg/L	1						4.0	4.0	4.0	4.0
Sodium	µg/L	1	1	188,000	188,000	188,000	188,000				
Zinc	µg/L	1	1	27	27	27	27				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	1						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	1						1.0	1.0	1.0	1.0
Toluene	µg/L	1						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	1						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Dichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	1						1.0	1.0	1.0	1.0
Trichlorobenzenes (Sum)	µg/L	1						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	1						0.5	0.5	0.5	0.5
Geddes Brook (Site 710)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	5	5	0.1	0.3	0.2	0.6				
Sulfate	mg/L	5	5	154	305	274	505				
Total alkalinity	mg/L	5	5	153	193	190	253				
Chloride	mg/L	5	5	183	422	369	844				
Total inorganic carbon	mg/L	5	5	27	41	40	52				
Total organic carbon	mg/L	5	5	4.52	6.242	6.1	8.18				
Total suspended solids	mg/L-sus	5	5	3.0	116	58	301				
Temperature	degC	4	4	10	13	13	17				
pH	pH	2	2	7.51	7.65	7.6	7.79				
Discharge instantaneous	cfs	1	1	27	27	27	27				

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Dissolved oxygen, wt/vol	mg/L	4	4	7.5	9.4325	9.345301	11				
Total Metals											
Cadmium	µg/L	5						2.0	2.0	2.0	2.0
Calcium	µg/L	5	5	140,000	230,800	211,387	383,000				
Chromium	µg/L	5	2	2.6	5.7	4.8	8.7	2.0	2.7	2.5	4
Copper	µg/L	5	5	2.4	9.4	7.3	20				
Lead	µg/L	5	3	1.3	10	5.8	22	4.0	7.0	6.3	10
Methylmercury – total	ng/L	5	5	0.2	1.0	0.8	1.8				
Mercury – total	ng/L	5	5	33	145	98	377				
Nickel	µg/L	5	1	13	13	13	13	5.0	5.8	5.6	8.0
Sodium	µg/L	5	5	75,400	160,080	142,765	294,000				
Zinc	µg/L	5	3	10	53	36	105	30	34	34	38
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	5						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	5						1.0	1.0	1.0	1.0
Toluene	µg/L	5						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	5						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	5						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	5						5.0E-02	0.1	7.9E-02	0.5
Lake Outlet (Station W12)											
Conventional Analytes											
Ammonia – nitrogen	mg/L	17	17	0.3	1.9	1.6	3.0				
Sulfate	mg/L	17	17	70	151	148	205				
Total alkalinity	mg/L	17	17	125	180	178	208				
Chloride	mg/L	17	17	154	413	385	501				
Total inorganic carbon	mg/L	17	17	34	47	47	56				
Total organic carbon	mg/L	17	17	5.4	6.8	6.8	8.3				
Total suspended solids	mg/L-sus	17	5	4	6.4	6.1	10	4.0	4.0	4.0	4.0

Table D-4. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conductivity	umho/c	3	3	1,760	1,917	1,913	2,020				
Dissolved oxygen, wt/vol	mg/L	3	3	14	14	14	14				
pH	pH	3	3	8.0	8.0	8.0	8.0				
Temperature	degC	3	3	12	33	28	44				
Hardness[b]	mg/L ($CaCO_3$)	17		170	389	368	513				
Total Metals											
Cadmium	µg/L	17						2.0	2.0	2.0	2.0
Calcium	µg/L	17	17	67,900	143,871	138,150	176,000				
Chromium	µg/L	17						2.0	3.1	2.9	4.0
Copper	µg/L	17	7	1.1	2.7	2.4	4.9	1.0	2.4	2.3	3.0
Lead	µg/L	17	2	2.5	4.2	3.8	5.8	1.0	1.3	1.2	3.4
Magnesium	µg/L	5	5	25,190	24,338	24,317	25,190				
Methylmercury – total	ng/L	18	18	0.1	0.7	0.6	2.0				
Mercury – total	ng/L	18	18	2.4	4.8	4.5	7.9				
Nickel	µg/L	17	3	5.7	7.0	7.0	7.7	4.0	5.5	5.4	8
Sodium	µg/L	17	17	78,200	184,376	174,503	221,000				
Zinc	µg/L	17	9	5.9	18	14	47	4.6	10	9.6	16
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	16						1.0	1.0	1.0	1.0
Ethylbenzene	µg/L	16						1.0	1.0	1.0	1.0
Toluene	µg/L	16						1.0	1.0	1.0	1.0
Xylene (Total)	µg/L	16						1.0	1.0	1.0	1.0
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	16						1.0	1.0	1.0	1.0
1,2-Dichlorobenzene	µg/L	16						1.0	1.0	1.0	1.0
1,3-Dichlorobenzene	µg/L	16						1.0	1.0	1.0	1.0
1,4-Dichlorobenzene	µg/L	16						1.0	1.0	1.0	1.0
1,2,3-Trichlorobenzene	µg/L	16						1.0	1.0	1.0	1.0
1,2,4-Trichlorobenzene	µg/L	16						1.0	1.0	1.0	1.0
1,3,5-Trichlorobenzene	µg/L	16						1.0	1.0	1.0	1.0
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/L	17						5.0E-02	7.6E-02	5.7E-02	0.5

Notes: [a] High-flow events had to meet the following criteria: 72 hours had passed with no fewer than 0.2 inches of precipitation at the Syracuse Airport; tributaries with a quick response to rainfall meaning a 2-inch increase in water level were sampled;

[b] Hardness values not in database. Summary of hardness values are located in Appendix B as a hard copy only.

Table D-5A. Summary Statistics for Surface Sediments (0-2 cm) Collected from Onondaga Lake in 1992

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Values	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Parameters											
Acid – volatile sulfide	mg/kg	114	106	20	1,968	949	6,600	10	20	19	30
Calcium carbonate	%-dw	114	114	17	62	59	91				
Chloride – calculated	mg/kg-ww	114	114	265	790	604	9,333				
Chloride – measured	mg/kg	114	114	130	1,583	972	14,000				
Total organic carbon	%-dw	116	116	0.2	1.9	1.6	3.7				
Percent sand	%-ww	114	114	0.4	24	9.7	71				
Percent silt	%-ww	114	114	0.3	12	8.4	33				
Percent clay	%-ww	114	114	0.4	3.0	2.2	8.7				
Percent fines (clay & silt)	%-dw	114	114	1.3	50	30	100				
Percent moisture	%-ww	114	114	29	61	59	81				
Total solids	%-ww	114	114	19	39	36	71				
Total Metals and Cyanide											
Aluminum	mg/kg	19	19	159	2,246	1,592	5,610				
Antimony	mg/kg	19	5	3.1	4.6	4.4	6.4	1.9	4.9	4.5	8.8
Arsenic	mg/kg	19	19	0.5	3.0	2.1	11				
Barium	mg/kg	19	19	27	182	122	890				
Beryllium	mg/kg	19	3	0.1	0.4	0.3	0.6	0.2	0.4	0.3	0.8
Cadmium	mg/kg	114	105	0.2	2.5	2.0	14	0.3	0.6	0.6	1.0
Calcium	mg/kg	114	114	51,000	212,384	201,205	349,000				
Chromium	mg/kg	114	114	5.9	81	46	1,990				
Cobalt	mg/kg	19	19	0.6	7.8	3.1	88				
Copper	mg/kg	114	111	4.5	44	35	173	9.3	10	10	11
Iron	mg/kg	19	19	874	7,097	4,693	34,200				
Lead	mg/kg	114	114	2.4	51	35	251				
Magnesium	mg/kg	114	114	2,340	5,804	5,220	17,300				
Manganese	mg/kg	19	19	93	278	261	508				
Mercury	mg/kg	114	112	0.2	4.0	2.0	69	0.1	0.2	0.1	0.2
Nickel	mg/kg	114	109	1.8	28	17	650	7.7	23	21	28
Potassium	mg/kg	19	19	88	239	194	699				
Selenium	mg/kg	19	12	0.3	0.5	0.5	1.1	0.2	0.3	0.3	0.3
Silver	mg/kg	19	14	0.6	1.5	1.3	5.1	0.3	0.9	0.8	1.4
Sodium	mg/kg	19	19	163	1,043	769	3,520				
Thallium	mg/kg	19	11	0.2	0.4	0.4	0.7	0.1	0.4	0.3	0.7
Vanadium	mg/kg	19	14	0.5	12.7	5.0	101	0.4	0.6	0.6	0.7
Zinc	mg/kg	114	114	16	114	96	276				
Cyanide	mg/kg	20	4	1.0	10.0	3.2	35	0.8	3.2	2.5	7.9

Table D-5A. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Values	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/kg	114	38	6.0	436	42	5,700	7.0	110	17	3,400
Toluene	µg/kg	114	71	3.0	146	30	4,200	8.0	153	21	3,400
Ethylbenzene	µg/kg	114	2	13	657	131	1,300	7.0	131	22	3,400
Styrene	µg/kg	18						14	408	46	3,400
Xylene (Total)	µg/kg	114	5	12	3,380	665	13,000	7.0	104	20	3,400
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/kg	114	36	7.0	2,720	127	43,000	7.0	48	16	1,500
1,2-Dichlorobenzene	µg/kg	114	14	19	1,130	154	7,900	7.0	442	28	21,004
1,3-Dichlorobenzene	µg/kg	114	6	21	1,487	281	6,800	7.0	381	30	21,004
1,4-Dichlorobenzene	µg/kg	114	37	5.0	1,691	117	16,000	7.0	129	24	2,800
Dichlorobenzenes (Sum)	µg/kg	114	37	5.0	2,359		22,800	7.0	129		2,800
1,2,3-Trichlorobenzene	µg/kg	98						7.0	106	19	2,700
1,2,4-Trichlorobenzene	µg/kg	114	3	25	118	68	287	7.0	484	32	21,004
1,3,5-Trichlorobenzene	µg/kg	98	3	560	2,020	1451	4,200	7.0	57	17	1500
Trichlorobenzenes (Sum)	µg/kg	114	6	25	1,069	313	4,200	7.0	255	26	10,000
Halogenated Alkanes											
Chloromethane	µg/kg	18						14	408	46	3,400
Bromomethane	µg/kg	18						14	408	46	3,400
Chloroethane	µg/kg	18						14	408	46	3,400
Methylene chloride	µg/kg	18	2	51	64	62	76	15	455	48	3,400
1,1-Dichloroethane	µg/kg	18						14	408	46	3,400
Chloroform	µg/kg	18						14	408	46	3,400
1,2-Dichloroethane	µg/kg	18						14	408	46	3,400
1,1,1-Trichloroethane	µg/kg	18						14	408	46	3,400
Carbon tetrachloride	µg/kg	18						14	408	46	3,400
Bromodichloromethane	µg/kg	18						14	408	46	3,400
1,2-Dichloropropane	µg/kg	18						14	408	46	3,400
Dibromochloromethane	µg/kg	18						14	408	46	3,400
1,1,2-Trichloroethane	µg/kg	18						14	408	46	3,400
Bromoform	µg/kg	18						14	408	46	3,400
1,1,2,2-Tetrachloroethane	µg/kg	18						14	408	46	3,400
Halogenated Alkenes											
Vinyl chloride	µg/kg	18						14	408	46	3,400
1,1-Dichloroethene	µg/kg	18						14	408	46	3,400
1,2-Dichloroethene (Total)	µg/kg	18						14	408	46	3,400
cis -1,3-Dichloropropene	µg/kg	18						14	408	46	3,400
trans -1,3-Dichloropropene	µg/kg	18						14	408	46	3,400

Table D-5A. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Values	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Trichloroethene	µg/kg	18						14	408	46	3,400
Tetrachloroethene	µg/kg	18						14	408	46	3,400
Ketones											
Acetone	µg/kg	18	16	34	257	127	1,100	3,000	3,200	3,194	3,400
2-Butanone	µg/kg	18	7	26	518	132	2,900	14	327	30	3,400
2-Hexanone	µg/kg	18						14	408	46	3,400
4-Methyl-2-pentanone	µg/kg	18						14	408	46	3,400
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/kg	18						14	408	46	3,400
Isopropanol	µg/kg	1	1	18	18	18.0	18				
Petroleum hydrocarbon – light fraction	mg/kg	31						5	198	110	700
Petroleum hydrocarbons – heavy fraction	mg/kg	31	31	530	10,695	6,168	47,000				
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,3,4-Tetrachlorobenzene	µg/kg	70	15	4.7	64	19	650	3.2	7.4	7.0	15
Tetrachlorobenzene (mixed)	µg/kg	70	13	4.9	123	37	1,000	4.0	9.3	7.9	60
Pentachlorobenzene	µg/kg	70	10	3.2	46	14	330	3.5	7.7	7.3	17
Hexachlorobenzene	µg/kg	89	37	3.4	63	13	1,200	4.8	1,349	38	42,000
2-Chloronaphthalene	µg/kg	19						75	3,465	484	42,000
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg	79	38	81	3,635	1,120	30,000	75	1,801	413	42,000
Acenaphthylene	µg/kg	79	27	34	1,363	687	6,300	75	4,208	1,141	42,000
Acenaphthene	µg/kg	79	33	41	1,356	606	15,000	75	2,738	659	42,000
Fluorene	µg/kg	79	44	35	585	181	7,200	47	1,969	194	42,000
Phenanthrene	µg/kg	79	63	17	1,342	315	22,000	24	2,857	92	42,000
Anthracene	µg/kg	79	58	13	621	139	8,900	24	2,967	148	42,000
2-Methylnaphthalene	µg/kg	19	5	33	1,115	419	3,700	75	4,177	431	42,000
PAH – low MW	µg/kg	1	1	45,400	45,400	45,400	45,400				
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg	79	72	28	7,699	1,221	230,000	47	725	149	4,400
Pyrene	µg/kg	79	66	22	1,280	452	17,000	28	4,530	200	42,000
Benz(a)anthracene	µg/kg	79	64	16	668	244	7,700	28	3,999	189	42,000
Chrysene	µg/kg	79	62	14	850	329	7,500	24	3,756	259	42,000
Benzo(b)fluoranthene	µg/kg	79	61	41	1,586	488	29,000	58	3,523	353	42,000
Benzo(k)fluoranthene	µg/kg	79	47	12	377	148	3,800	29	2,160	235	42,000
Benzo(a)pyrene	µg/kg	79	62	21	536	191	7,800	24	3,670	237	42,000
Indeno(1,2,3-cd)pyrene	µg/kg	79	42	16	354	195	1,933	24	1,873	158	42,000
Dibenz(a,h)anthracene	µg/kg	79	43	19	203	114	890	47	1,995	227	42,000
Benzo(g,h,i)perylene	µg/kg	79	62	20	1,099	526	9,300	47	3,689	327	42,000

Table D-5A. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Values	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Benzo[e]pyrene	µg/kg	2	2	910	2,155	1,759	3,400				
PAH – high MW	µg/kg	1	1	37,300	37,300	37,300	37,300				
Total benzofluoranthenes (b + k)	µg/kg	1						20,000	20,000	20,000	20,000
Phenols											
Phenol	µg/kg	19	2	45	45	45	45	75	3,857	566	42,000
2-Methylphenol	µg/kg	19						75	3,465	484	42,000
4-Methylphenol	µg/kg	19	1	82	82	82	82	75	3,653	533	42,000
2,4-Dimethylphenol	µg/kg	19						75	3,465	484	42,000
Substituted Phenols											
2-Chlorophenol	µg/kg	19						75	3,465	484	42,000
2,4-Dichlorophenol	µg/kg	19						75	3,465	484	42,000
4-Chloro-3-methylphenol	µg/kg	19						75	3,465	484	42,000
2,4,6-Trichlorophenol	µg/kg	19						75	3,465	484	42,000
2,4,5-Trichlorophenol	µg/kg	19						190	8,453	1,219	100,000
Pentachlorophenol	µg/kg	19						190	8,453	1,219	100,000
2-Nitrophenol	µg/kg	19						75	3,465	484	42,000
4-Nitrophenol	µg/kg	19						190	8,453	1,219	100,000
2,4-Dinitrophenol	µg/kg	19						190	8,453	1,219	100,000
2-Methyl-4,6-dinitrophenol	µg/kg	19						190	8,453	1,219	100,000
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg	19						75	3,465	484	42,000
Hexachlorobutadiene	µg/kg	19						75	3,465	484	42,000
Hexachlorocyclopentadiene	µg/kg	19						75	3,465	484	42,000
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/kg	19						75	3,465	484	42,000
4-Chlorophenyl-phenyl ether	µg/kg	19						75	3,465	484	42,000
4-Bromophenyl-phenyl ether	µg/kg	19						75	3,465	484	42,000
Bis(2-chloroethoxy)methane	µg/kg	19						75	3,465	484	42,000
2,2'-Oxybis(1-chloropropane)	µg/kg	19						75	3,465	484	42,000
Phthalates											
Dimethylphthalate	µg/kg	19						75	3,465	484	42,000
Diethylphthalate	µg/kg	19						75	3,465	484	42,000
Di-n-butylphthalate	µg/kg	19						75	3,465	484	42,000
Butylbenzylphthalate	µg/kg	19						75	3,465	484	42,000
Bis(2-ethylhexyl)phthalate	µg/kg	19	14	22	714	227	3,000	170	11,352	2,266	42,000
Di-n-octylphthalate	µg/kg	19						75	3,465	484	42,000
Miscellaneous Oxygenated Compounds											
Isophorone	µg/kg	19						75	3,465	484	42,000
Dibenzofuran	µg/kg	19	5	18	434	174	1,300	75	4,486	576	42,000

Table D-5A. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Values	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Carbazole	µg/kg	19	5	20	245	138	470	75	4,484	567	42,000
Organonitrogen Compounds											
Nitrobenzene	µg/kg	19						75	3,465	484	42,000
N-nitroso-di-n-propylamine	µg/kg	19						75	3,465	484	42,000
2-Nitroaniline	µg/kg	19						190	8,453	1,219	100,000
3-Nitroaniline	µg/kg	19						190	8,453	1,219	100,000
4-Nitroaniline	µg/kg	19						190	8,453	1,219	100,000
2,6-Dinitrotoluene	µg/kg	19						75	3,465	484	42,000
2,4-Dinitrotoluene	µg/kg	19						75	3,465	484	42,000
N-Nitrosodiphenylamine(1)	µg/kg	19						75	3,465	484	42,000
4-Chloroaniline	µg/kg	19						75	3,465	484	42,000
3,3'-Dichlorobenzidine	µg/kg	19						75	3,465	484	42,000
Miscellaneous Compounds											
1,6-Dimethyl naphthalene	µg/kg	1	1	540	540	540	540				
1,4-Dimethyl naphthalene	µg/kg	1	1	77	77	77	77				
1,2-Dimethylnaphthalene	µg/kg	1	1	1,767	1,767	1,767	1,767				
Cyclohexyl benzene	µg/kg	2	2	13,000	19,500	18,385	26,000				
Cyclopentyl benzene	µg/kg	1	1	26,000	26,000	26,000	26,000				
11h-Benzo[a]fluorene	µg/kg	1	1	150	150	150	150				
1-Methylpyrene	µg/kg	1	1	1,200	1,200	1,200	1,200				
1-Methylnaphthalene	µg/kg	19	19	19	5,137	599	43,000				
Beta-methyl-beta-phenyl-benzene-ethanol	µg/kg	1	1	5,500	5,500	5,500	5,500				
1-Methyl phenanthrene	µg/kg	1	1	1,500	1,500	1,500	1,500				
11h-Benzo[b]fluorene	µg/kg	2	2	230	1,015	643	1,800				
1,1'-(1-methylethylidene)bis-benzene	µg/kg	3	3	1,200	3,300	2,604	6,400				
1,4,5-Trimethylnaphthalene	µg/kg	1	1	51	51	51	51				
1,2,3-Trimethyl-4-propenyl naphthalene	µg/kg	2	2	47	4,124	621	8,200				
Heptadecane	µg/kg	3	3	75	1,420	654	2,900				
Hexadecane	µg/kg	9	9	32	1,186	276	5,400				
5-Methylene-5h-dibenzo[a,d]cycloheptene	µg/kg	1	1	920	920	920	920				
2-Phenyl naphthalene	µg/kg	1	1	920	920	920	920				
3-(2-Phenylethenly)-benzenamine	µg/kg	3	3	6,400	23,800	18,653	39,000				
3,6-Dimethyl undecane	µg/kg	1	1	370	370	370	370				
3-Methyl phenanthrene	µg/kg	1	1	2,200	2,200	2,200	2,200				
3-Methylcyclopentylbenzene	µg/kg	1	1	3,700	3,700	3,700	3,700				
2-Hydroxy-4-methoxy-6-methyl-benzaldehyde	µg/kg	1	1	26,000	26,000	26,000	26,000				
2-Ethyl-1-hexanol	µg/kg	1	1	1,300	1,300	1,300	1,300				
4,6-Dimethyl undecane	µg/kg	1	1	980	980	980	980				
4,9-Dipropyldodecane	µg/kg	1	1	160	160	160	160				

Table D-5A. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Values	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
2-Ethyl-1-hexanamine	µg/kg	1	1	1,000	1,000	1,000	1,000				
4-Methyl-biphenyl	µg/kg	1	1	11,000	11,000	11,000	11,000				
2,3,6-Trimethyl octane	µg/kg	4	4	120	1,135	651	2,250				
5-Propyl tridecane	µg/kg	3	3	80	1,227	621	2,300				
7-Methyl tridecane	µg/kg	1	1	62	62	62.0	62				
9-Octylheptadecane	µg/kg	2	2	160	830	490	1500				
2,7,10-Trimethyldodecane	µg/kg	2	2	160	190	188	220				
2,6,11-Trimethyldodecane	µg/kg	1	1	1,200	1,200	1,200	1,200				
2,5-bis(1,1-dimethyletyl)thiophene	µg/kg	1	1	770	770	770	770				
1-Methylhexyl benzene	µg/kg	1	1	11,000	11,000	11,000	11,000				
2-Ethenyl naphthalene	µg/kg	2	2	51	57	56	62				
1,1'(3methyl1propene1,3diyl)bis-benzene	µg/kg	3	3	13,000	95,000	55,316	210,000				
Tricarbonyl[n-phenyl2pyridinylmeth]iron	µg/kg	4	4	63	398	213	1,200				
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg	19						2.4	4.8	4.2	15
β-Hexachlorocyclohexane	µg/kg	19						2.4	4.8	4.2	15
δ-Hexachlorocyclohexane	µg/kg	19						2.4	4.8	4.2	15
γ-Hexachlorocyclohexane (Lindane)	µg/kg	19						2.4	4.8	4.2	15
Aldrin	µg/kg	19						2.4	4.8	4.2	15
α-Chlordane	µg/kg	19	1	5.1	5.1	5.1	5.1	2.4	4.6	4.0	15
γ-Chlordane	µg/kg	19						2.4	4.8	4.2	15
Chlordane (Sum)	µg/kg	19	1	5.1	5.1	5.1	5.1	2.4	4.6	4.0	15
Dieldrin	µg/kg	19						4.6	9.3	8.1	29
α-Endosulfan	µg/kg	19						2.4	4.8	4.2	15
β-Endosulfan	µg/kg	19						4.6	9.3	8.1	29
Endosulfan sulfate	µg/kg	19						4.6	9.3	8.1	29
Endrin	µg/kg	19						4.6	9.3	8.1	29
Endrin aldehyde	µg/kg	19						4.6	9.3	8.1	29
Endrin ketone	µg/kg	19						4.6	9.3	8.1	29
Heptachlor	µg/kg	19						2.4	4.8	4.2	15
Heptachlor epoxide	µg/kg	19						2.4	4.8	4.2	15
Methoxychlor	µg/kg	19						24	48	42	150
4,4'-DDD	µg/kg	19	4	7.4	21	16	47	4.6	9.1	7.8	29
4,4'-DDE	µg/kg	19						4.6	9.3	8.1	29
4,4'-DDT	µg/kg	19						4.6	9.3	8.1	29
DDT and metabolites (Sum)	µg/kg	19	4	7.4	21		47	4.6	9.1		29
Toxaphene	µg/kg	19						240	478	417	1,500

Table D-5A. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Values	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Aroclor 1016	µg/kg	114	2	90	135	127	180	42	84	77	340
Aroclor 1221	µg/kg	114						42	100	87	590
Aroclor 1232	µg/kg	114						42	84	77	340
Aroclor 1242	µg/kg	114						42	84	77	340
Aroclor 1248	µg/kg	114	57	31	181	109	1,100	42	78	72	290
Aroclor 1254	µg/kg	114	3	65	81	79	100	42	83	77	340
Aroclor 1260	µg/kg	114	27	37	218	126	1,000	42	80	75	290
PCBs (Sum)	µg/kg	114	62	65	294	180	2,100	42	75	70	290

Table D-5B. Summary Statistics for Sediments (0-30 cm) Collected from Onondaga Lake in 1992

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Acid – volatile sulfide	mg/kg-dw	73	68	20	3,258	2,081	8,000	20	20	20	20
Calcium carbonate	%-dw	73	73	23	56	54	91				
Chloride – calculated	mg/kg-dw	73	73	537	1,854	1,445	11,056				
Chloride – measured	mg/kg-dw	73	73	400	4,327	3,044	23,000				
Total organic carbon	%-dw	73	73	0.1	2.8	2.4	4.7				
Percent sand	%-ww	73	73	0.2	9.1	2.0	72				
Percent silt	%-ww	73	73	3.7	21	20	43				
Percent clay	%-ww	73	73	0.7	3.3	3.0	5.6				
Percent moisture	%-ww	73	73	24	67	65	80				
Total solids	%-ww	73	73	20	33	31	76				
Total Metals											
Aluminum	mg/kg-dw	18	18	427	2,730	1,853	7,360				
Antimony	mg/kg-dw	18	15	2.3	7.0	6.3	14	2.5	4.8	4.2	8.6
Arsenic	mg/kg-dw	18	18	0.3	3.6	2.3	8.0				
Barium	mg/kg-dw	18	18	39	179	134	708				
Beryllium	mg/kg-dw	18	3	0.3	0.4	0.4	0.5	0.2	0.4	0.3	0.9
Cadmium	mg/kg-dw	73	60	1.2	11	9.1	23	0.4	1.4	0.8	9.8
Calcium	mg/kg-dw	73	73	98,600	219,894	214,420	339,000				
Chromium	mg/kg-dw	73	73	3.0	189	109	1,190				
Cobalt	mg/kg-dw	18	15	0.8	4.2	3.2	9.9	0.5	0.6	0.6	0.7
Copper	mg/kg-dw	73	73	1.9	103	73	226				
Iron	mg/kg-dw	18	18	1,520	6,463	4,809	17,467				
Lead	mg/kg-dw	73	73	0.8	148	92	1,170				
Magnesium	mg/kg-dw	73	73	1,640	6,969	6,291	28,800				
Manganese	mg/kg-dw	18	18	104	216	205	380				
Mercury	mg/kg-dw	73	65	0.2	9.8	5.6	44	0.1	0.3	0.3	0.5
Nickel	mg/kg-dw	73	72	2.7	53	38	219	2.4	2.4	2.4	2.4
Potassium	mg/kg-dw	18	17	90	358	258	1,200	121	121	121	121
Selenium	mg/kg-dw	18	7	0.4	0.7	0.7	1.2	0.2	0.4	0.4	0.9
Silver	mg/kg-dw	18	15	0.5	2.4	1.7	6.4	0.4	0.7	0.7	1.1
Sodium	mg/kg-dw	18	17	612	2,271	1,676	5,970	782	782	782	782
Thallium	mg/kg-dw	18	7	0.3	0.6	0.5	0.9	0.2	0.3	0.3	0.6
Vanadium	mg/kg-dw	18	12	1	7.4	5.4	19	1.0	1.1	1.1	1.4
Zinc	mg/kg-dw	73	71	6.8	270	201	453	8.4	25	18	41

Table D-5B. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/kg-dw	72	58	3	712	41	9,900	11	408	57	2,000
Toluene	µg/kg-dw	72	43	3	1,192	39	12,000	11	205	36	2,000
Ethylbenzene	µg/kg-dw	72	7	20	3,545	660	9,100	11	364	36	9,900
Styrene	µg/kg-dw	18						11	1,718	77	19,000
Xylene (Total)	µg/kg-dw	72	46	13	7,445	94	110,000	11	294	43	2,000
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/kg-dw	73	59	4.0	11,765	190	290,000	9.0	35	22	190
1,2-Dichlorobenzene	µg/kg-dw	73	48	4.8	1,452	47	24,000	9.0	901	196	4,600
1,3-Dichlorobenzene	µg/kg-dw	73	38	8.0	1,276	41	39,000	9.0	1,177	187	6,767
1,4-Dichlorobenzene	µg/kg-dw	73	57	5.3	8,187	172	250,000	9.0	666	154	3,100
Dichlorobenzene, non-specific	µg/kg-dw	73	58	20	10,083	253	301,000	9.0	705	159	3,100
1,2,3-Trichlorobenzene	µg/kg-dw	55	6	5.2	2,740	179	11,000	9.0	311	32	5,400
1,2,4-Trichlorobenzene	µg/kg-dw	73	38	4.8	358	36	5,700	9.0	1,206	188	9,900
1,3,5-Trichlorobenzene	µg/kg-dw	55	8	5.2	5,092	230	24,000	9.0	203	29	3,600
Trichlorobenzene	µg/kg-dw	55	40	7.5	1,546	51	35,000	9.0	493	44	3,600
Halogenated Alkanes											
Chloromethane	µg/kg-dw	18						11	1,718	77	19,000
Bromomethane	µg/kg-dw	18						11	1,718	77	19,000
Chloroethane	µg/kg-dw	18						11	1,718	77	19,000
Methylene chloride	µg/kg-dw	18						11	1,718	77	19,000
1,1-Dichloroethane	µg/kg-dw	18						11	1,718	77	19,000
Chloroform	µg/kg-dw	18						11	1,718	77	19,000
1,2-Dichloroethane	µg/kg-dw	18						11	1,718	77	19,000
1,1,1-Trichloroethane	µg/kg-dw	18						11	1,718	77	19,000
Carbon tetrachloride	µg/kg-dw	18						11	1,718	77	19,000
Bromodichloromethane	µg/kg-dw	18						11	1,718	77	19,000
1,2-Dichloropropane	µg/kg-dw	18						11	1,718	77	19,000
Dibromochloromethane	µg/kg-dw	18						11	1,718	77	19,000
1,1,2-Trichloroethane	µg/kg-dw	18						11	1,718	77	19,000
Bromoform	µg/kg-dw	18						11	1,718	77	19,000
1,1,2,2-Tetrachloroethane	µg/kg-dw	18						11	1,718	77	19,000
Halogenated Alkenes											
Vinyl chloride	µg/kg-dw	18						11	1,718	77	19,000
1,1-Dichloroethene	µg/kg-dw	18						11	1,718	77	19,000
1,2-Dichloroethene (Total)	µg/kg-dw	18						11	1,718	77	19,000

Table D-5B. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
cis -1,3-dichloropropene	µg/kg-dw	18						11	1,718	77	19,000
trans -1,3-dichloropropene	µg/kg-dw	18						11	1,718	77	19,000
Trichloroethene	µg/kg-dw	18						11	1,718	77	19,000
Tetrachloroethene	µg/kg-dw	18						11	1,718	77	19,000
Ketones											
Acetone	µg/kg-dw	18	13	41	341	186	1,600	15	6,049	773	19,000
2-Butanone	µg/kg-dw	18	8	45	259	192	590	11	3,031	99	19,000
2-Hexanone	µg/kg-dw	18						11	1,718	77	19,000
4-Methyl-2-pentanone	µg/kg-dw	18						11	1,718	77	19,000
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/kg-dw	18	2	28	30	30	33	11	1,926	82	19,000
Isopropanol	µg/kg-dw	13	13	8	80	38	490				
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,3,4-Tetrachlorobenzene	µg/kg-dw	43	15	2.5	2,104	18	30,000	4.1	7.98	7.4	20.1
Tetrachlorobenzene (mixed)	µg/kg-dw	43	10	4.95	2,948	84	22,000	3.7	8.76	7.9	20
Pentachlorobenzene	µg/kg-dw	43	12	2.4	683	23	7,100	4.1	7.36	7.0	14
Hexachlorobenzene	µg/kg-dw	62	23	2.4	1,126	28	20,000	2.9	594	42	6,767
2-Chloronaphthalene	µg/kg-dw	18						74	1,594	492	6,767
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg-dw	28	15	35	17,931	2,623	150,000	74	1,443	408	6,400
Acenaphthylene	µg/kg-dw	28	11	780	2,953	2,211	6,200	74	4,090	628	34,000
Acenaphthene	µg/kg-dw	28	15	29	2,362	1,454	8,000	74	2,527	437	17,000
Fluorene	µg/kg-dw	28	14	23	5,051	1,445	18,000	77	967	322	6,767
Phenanthrene	µg/kg-dw	28	23	40	3,520	1,056	25,000	77	443	201	1,600
Anthracene	µg/kg-dw	28	16	25	2,079	636	9,400	61	1,788	450	6,767
2-Methylnaphthalene	µg/kg-dw	18	7	390	3,055	1,904	6,600	74	415	169	1,900
1,4-Dimethylnaphthalene	µg/kg-dw	1	1	5,000	5,000	5,000	5,000				
1,2-Dimethylnaphthalene	µg/kg-dw	2	2	260	615	502	970				
PAH – low MW	µg/kg-dw	28	28	418	24,365	6,289	232,700				
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg-dw	28	23	23	8,225	1,738	47,000	79	1,176	330	4,600
Pyrene	µg/kg-dw	28	24	25	4,450	877	49,000	79	1,618	487	4,600
Benz(a)anthracene	µg/kg-dw	28	20	17	3,093	564	31,000	79	1,903	612	6,767
Chrysene	µg/kg-dw	28	22	21	3,448	827	34,000	79	2,209	592	6,767
Benzo(b)fluoranthene	µg/kg-dw	28	20	31	4,481	818	46,000	79	2,284	1,084	5,700
Benzo(k)fluoranthene	µg/kg-dw	28	10	33	457	286	1,200	74	1,713	649	6,767

Table D-5B. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Indeno(1,2,3-cd)pyrene	µg/kg-dw	28	13	18	1,983	409	14,000	61	1,656	574	6,767
Benzo(a)pyrene	µg/kg-dw	28	19	19	3,029	566	31,000	79	1,903	694	6,767
Benzo[e]pyrene	µg/kg-dw	2	2	4,800	11,400	9,295	18,000				
Dibenz(a,h)anthracene	µg/kg-dw	28	10	19	325	156	1,000	77	1,909	823	6,767
Benzo(g,h,i)perylene	µg/kg-dw	28	18	45	2,315	896	16,000	77	1,872	533	6,767
Total benzofluoranthenes (b + k)	µg/kg-dw	1	1	7,400	7,400	7,400	7,400				
PAH – high MW	µg/kg-dw	28	28	336	25,435	7246	213,100				
Phenols											
Phenol	µg/kg-dw	18	1	87	87	87	87	74	1,681	535	6,767
2-Methylphenol	µg/kg-dw	18	1	30	30	30	30	74	1,681	535	6,767
4-Methylphenol	µg/kg-dw	18	2	250	470	415	690	74	1,746	529	6,767
2,4-Dimethylphenol	µg/kg-dw	18						74	1,681	535	6,767
Substituted Phenols											
2-Chlorophenol	µg/kg-dw	18						74	1,681	535	6,767
2,4-Dichlorophenol	µg/kg-dw	18						74	1,681	535	6,767
4-Chloro-3-methylphenol	µg/kg-dw	18						74	1,681	535	6,767
2,4,6-Trichlorophenol	µg/kg-dw	18						74	1,681	535	6,767
2,4,5-Trichlorophenol	µg/kg-dw	18						190	4,170	1,335	17,000
Pentachlorophenol	µg/kg-dw	18						190	4,170	1,335	17,000
2-Nitrophenol	µg/kg-dw	18						74	1,681	535	6,767
4-Nitrophenol	µg/kg-dw	18						190	4,170	1,335	17,000
2,4-Dinitrophenol	µg/kg-dw	18						190	4,170	1,335	17,000
2-Methyl-4,6-dinitrophenol	µg/kg-dw	18						190	4,170	1,335	17,000
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg-dw	18						74	1,594	492	6,767
Hexachlorobutadiene	µg/kg-dw	18						74	1,594	492	6,767
Hexachlorocyclopentadiene	µg/kg-dw	18						74	1,594	492	6,767
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/kg-dw	18						74	1,594	492	6,767
4-Chlorophenyl-phenyl ether	µg/kg-dw	18						74	1,594	492	6,767
4-Bromophenyl-phenyl ether	µg/kg-dw	18						74	1,594	492	6,767
Bis(2-chloroethoxy)methane	µg/kg-dw	18						74	1,594	492	6,767
2,2'-Oxybis(1-chloropropane)	µg/kg-dw	18						74	1,594	492	6,767
Phthalates											
Dimethylphthalate	µg/kg-dw	18						74	1,594	492	6,767
Diethylphthalate	µg/kg-dw	18						74	1,594	492	6,767
Di-n-butylphthalate	µg/kg-dw	18						74	1,594	492	6,767

Table D-5B. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Butylbenzylphthalate	µg/kg-dw	18						74	1,594	492	6,767
Bis(2-ethylhexyl)phthalate	µg/kg-dw	18	9	23	1,556	540	3,467	77	1,673	435	5,700
Di-n-octylphthalate	µg/kg-dw	18						74	1,594	492	6,767
Oxygenated Compounds											
Isophorone	µg/kg-dw	18						74	1,594	492	6,767
Dibenzofuran	µg/kg-dw	18	4	18	1,365	400	3,500	74	1,506	434	6,767
Carbazole	µg/kg-dw	18	4	33	1,156	350	3,900	74	1,692	453	6,767
Organonitrogen Compounds											
Nitrobenzene	µg/kg-dw	18						74	1,594	492	6,767
N-nitroso-di-*n* -propylamine	µg/kg-dw	18						74	1,594	492	6,767
2-Nitroaniline	µg/kg-dw	18						190	3,956	1,231	17,000
3-Nitroaniline	µg/kg-dw	18						190	3,956	1,231	17,000
4-Nitroaniline	µg/kg-dw	18						190	3,956	1,231	17,000
2,6-Dinitrotoluene	µg/kg-dw	18						74	1,594	492	6,767
2,4-Dinitrotoluene	µg/kg-dw	18						74	1,594	492	6,767
N-Nitroso-di-phenylamine(1)	µg/kg-dw	18						74	1,594	492	6,767
4-Chloroaniline	µg/kg-dw	18						74	1,594	492	6,767
3,3'-Dichlorobenzidine	µg/kg-dw	18						74	1,594	492	6,767
Miscellaneous Compounds											
2-Ethyl-1-hexanamine	µg/kg-dw	1	1	39,000	39,000	39,000	39,000				
3-Methylcyclopentylbenzene	µg/kg-dw	1	1	19,000	19,000	19,000	19,000				
3-Methyl phenanthrene	µg/kg-dw	2	2	1,500	1,700	1,688	1,900				
3,6-Dimethyl undecane	µg/kg-dw	1	1	2,400	2,400	2,400	2,400				
3,6-Dimethyl phenanthrene	µg/kg-dw	1	1	1,900	1,900	1,900	1,900				
3,5-Dichloro-2-hydroxy-benzaldehyde	µg/kg-dw	2	2	1,400	2,300	2,117	3,200				
3-(2-Phenylethenly)-benzenamine	µg/kg-dw	3	3	17	8,539	1,355	17,000				
2-Phenyl naphthalene	µg/kg-dw	1	1	970	970	970	970				
2-Methylpyrene	µg/kg-dw	2	2	1,200	1,900	1,766	2,600				
1,1'-(1-methylethylidene)bis-benzene	µg/kg-dw	1	1	33	33	33	33				
2-Fluorobiphenyl	µg/kg-dw	1	1	810	810	810	810				
4-Methyldodecane	µg/kg-dw	1	1	1,600	1,600	1,600	1,600				
2,7,10-Trimethyldodecane	µg/kg-dw	1	1	4,100	4,100	4,100	4,100				
2,5-Dimethyl phenanthrene	µg/kg-dw	1	1	1,900	1,900	1,900	1,900				
Hexadecane	µg/kg-dw	4	4	16	1,011	198	3,600				
2,5-bis(1,1-dimethyletyl)-thiophene	µg/kg-dw	1	1	3,800	3,800	3,800	3,800				

Table D-5B. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
2,3-Dihydro-1,1,4-1h-indene	µg/kg-dw	3	3	35,000	44,000	43,501	49,000				
2-Methylanthracene	µg/kg-dw	2	2	520	625	616	730				
9,10-Dimethyl phenanthrene	µg/kg-dw	1	1	1,500	1,500	1,500	1,500				
Biphenyl	µg/kg-dw	1	1	520	520	520	520				
Benzenepropanoic acid, .alpha.,.alpha-di	µg/kg-dw	1	1	13,000	13,000	13,000	13,000				
Azulene	µg/kg-dw	1	1	130	130	130	130				
1,1'(3-methyl-1-propene-1,3-diyl)bis-benzene	µg/kg-dw	3	3	1,900	21,967	12,480	33,000				
1-(1,1-Dimethylethyl) benzene	µg/kg-dw	2	2	33,000	40,000	39,383	47,000				
4,6-Dimethyl undecane	µg/kg-dw	4	4	230	1,521	960	2,800				
4-Ethyl-1,2-dimethylbenzene	µg/kg-dw	1	1	36,000	36,000	36,000	36,000				
7-Methyl-benz[a]anthracene	µg/kg-dw	1	1	16	16	16	16				
7-Methyltridecane	µg/kg-dw	2	2	260	1,530	853	2,800				
6-Methyldodecane	µg/kg-dw	4	4	130	1,265	754	3,050				
5-Propyldecane	µg/kg-dw	3	3	81	174	156	260				
5-Methyl-5-phenyl-2-hexanone	µg/kg-dw	1	1	8,300	8,300	8,300	8,300				
5,10-Dihydro-phenazine,compd with phenaz	µg/kg-dw	1	1	13,000	13,000	13,000	13,000				
4-Methyltetradecane	µg/kg-dw	1	1	36	36	36	36				
4-Methylphenanthrene	µg/kg-dw	2	2	520	2,210	1,424	3,900				
2,3,7-Trimethyl octane	µg/kg-dw	2	2	1,600	3,450	2,912	5,300				
Cyclohexyl benzene	µg/kg-dw	1	1	3,800	3,800	3,800	3,800				
2,3,6-Trimethyl octane	µg/kg-dw	1	1	310	310	310	310				
1,4,5-Trimethylnaphthalene	µg/kg-dw	2	2	260	2,605	1,134	4,950				
1,3-Dimethylbutylbenzene	µg/kg-dw	1	1	110,000	110,000	110,000	110,000				
Thio-, s-undecyl propionic acid	µg/kg-dw	1	1	8,300	8,300	8,300	8,300				
1,3,5-Trimethylbenzene	µg/kg-dw	2	2	14,000	39,500	30,166	65,000				
11h-Benzo[b]fluorene	µg/kg-dw	1	1	970	970	970	970				
11h-Benzo[a]fluorene	µg/kg-dw	3	3	15	1,805	473	3,200				
1,2,4-Trimethylbenzene	µg/kg-dw	1	1	30,000	30,000	30,000	30,000				
Tricarbonyl[n-phenyl2pyridinylmeth.]iron	µg/kg-dw	1	1	16	16	16	16				
1,2,3,4-Tetrahydro-1,6,8-trimet.naphtha.	µg/kg-dw	1	1	810	810	810	810				
Tritetracontane	µg/kg-dw	1	1	230	230	230	230				
Undecylcyclohexane	µg/kg-dw	1	1	3,400	3,400	3,400	3,400				
1,1'-Ethylidenebis-benzene	µg/kg-dw	1	1	16,000	16,000	16,000	16,000				
1,1-Diphenyl-2-propanone	µg/kg-dw	1	1	8,300	8,300	8,300	8,300				
1-Propynyl benzene	µg/kg-dw	2	2	15,000	38,500	30,496	62,000				
1-Methylpyrene	µg/kg-dw	2	2	970	2,085	1,762	3,200				

Table D-5B. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
N-(phenylmethylene)-1-propanamine	µg/kg-dw	1	1	14,000	14,000	14,000	14,000				
1-Methylpropyl benzene	µg/kg-dw	3	3	19,000	56,889	47,322	89,000				
1-Methylpentyl benzene	µg/kg-dw	2	2	27,000	52,250	45,744	77,500				
1-Methylnaphthalene	µg/kg-dw	18	18	16	4,451	668	32,267				
1-Methylhexyl benzene	µg/kg-dw	2	2	43,333	43,667	43,665	44,000				
1-Methylheptyl benzene	µg/kg-dw	1	1	7,100	7,100	7,100	7,100				
1,4-Dihydro-1,4-methanonaphthalene	µg/kg-dw	1	1	2,700	2,700	2,700	2,700				
1-Ethyl-4-methyl-benzene	µg/kg-dw	2	2	20,000	31,500	29,326	43,000				
1-Methylbutyl benzene	µg/kg-dw	3	3	17,000	49,444	41,722	72,000				
1-Methyl-benz[a]anthracene	µg/kg-dw	1	1	2,600	2,600	2,600	2,600				
1-Methyl phenanthrene	µg/kg-dw	1	1	1,200	1,200	1,200	1,200				
1-Iododecane	µg/kg-dw	1	1	77	77	77	77				
1,1'-(1,3-butadiene-1,4-diyl)bis-benzene	µg/kg-dw	1	1	1,200	1,200	1,200	1,200				
1-Ethylbutyl-benzene	µg/kg-dw	2	2	16,000	29,000	25,923	42,000				
Cyclopentyl benzene	µg/kg-dw	3	3	3,800	50,844	16,686	140,000				
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg-dw	18						2.2	4.0	3.8	7.3
β-Hexachlorocyclohexane	µg/kg-dw	18	2	24	67	51	110	2.2	3.9	3.6	7.3
δ-Hexachlorocyclohexane	µg/kg-dw	18						2.2	4.0	3.8	7.3
γ-Hexachlorocyclohexane (Lindane)	µg/kg-dw	18						2.2	4.0	3.8	7.3
Aldrin	µg/kg-dw	18						2.2	4.0	3.8	7.3
α-Chlordane	µg/kg-dw	18						2.2	4.0	3.8	7.3
γ-Chlordane	µg/kg-dw	18						2.2	4.0	3.8	7.3
Chlordane (Sum)	µg/kg-dw	18						2.2	4.0	3.8	7.3
Dieldrin	µg/kg-dw	18						4.3	7.9	7.4	14
α-Endosulfan	µg/kg-dw	18						2.2	4.0	3.8	7.3
β-Endosulfan	µg/kg-dw	18						4.3	7.9	7.4	14
Endosulfan sulfate	µg/kg-dw	18	2	6.7	9.9	9.4	13	4.3	7.9	7.3	14
Endrin	µg/kg-dw	18						4.3	7.9	7.4	14
Endrin aldehyde	µg/kg-dw	18						4.3	7.9	7.4	14
Endrin ketone	µg/kg-dw	18						4.3	7.9	7.4	14
Heptachlor	µg/kg-dw	18	1	6.1	6.1	6.1	6.1	2.2	4.1	3.8	7.3
Heptachlor epoxide	µg/kg-dw	18						2.2	4.0	3.8	7.3
Methoxychlor	µg/kg-dw	18						22	40	38	73
4,4'-DDD	µg/kg-dw	18						4.3	7.9	7.4	14
4,4'-DDE	µg/kg-dw	18	3	7.8	11	11	13	4.3	7.9	7.4	14
4,4'-DDT	µg/kg-dw	18						4.3	7.9	7.4	14

Table D-5B. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Toxaphene	µg/kg-dw	18						220	404	379	730
Aroclor 1016	µg/kg-dw	73						29	107	88	510
Aroclor 1221	µg/kg-dw	73						29	127	105	510
Aroclor 1232	µg/kg-dw	73						29	107	88	510
Aroclor 1242	µg/kg-dw	73	2	307	399	388	492	29	108	89	510
Aroclor 1248	µg/kg-dw	73	60	51	691	484	4,200	29	58	57	91
Aroclor 1254	µg/kg-dw	73	4	110	290	253	510	29	107	87	510
Aroclor 1260	µg/kg-dw	73	52	70	384	289	1,800	29	74	66	220
PCBs (Sum)	µg/kg-dw	73	60	69.5	1,060	773	6,000	29	58	57	91
Dioxins/Furans											
2,5-Dihydro-2,5-dimethoxyfuran	µg/kg-dw	1	1	1,200	1,200	1,200	1,200				

Table D-6. Summary Statistics for Surface Sediments (0-2 cm) Collected from Otisco Lake in 1992

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Acid – volatile sulfide	mg/kg	5	2	50	75	71	100	10	20	18	30
Calcium carbonate	%-dw	5	5	1.0	25	14	55				
Chloride – measured	mg/kg	5	5	17	47	41	90				
Chloride – calculated	mg/kg-ww	5	5	23	34	32	50				
Total organic carbon	%-dw	5	5	0.4	2.0	1.5	3.7				
Percent sand	%-ww	5	5	3.8	28	18	73				
Percent silt	%-ww	5	5	0.9	14	9.1	22				
Percent clay	%-ww	5	5	0.6	2.0	1.5	5.0				
Percent fines (clay & silt)	%-dw	5	5	2.0	45	27	88				
Percent moisture	%-ww	5	5	25	56	53	70				
Total solids	%-ww	5	5	30	44	42	75				
Total Metals and Cyanide											
Aluminum	mg/kg	5	5	2,250	4,154	3,805	7,750				
Antimony	mg/kg	5						2.4	4.2	4.0	5.6
Arsenic	mg/kg	5	5	0.5	3.1	2.3	5.7				
Barium	mg/kg	5	5	11	75	57	119				
Beryllium	mg/kg	5						0.2	0.4	0.4	0.5
Cadmium	mg/kg	5	1	0.7	0.7	0.7	0.7	0.2	0.4	0.3	0.5
Calcium	mg/kg	5	5	2,870	83,314	46,028	193,000				
Chromium	mg/kg	5	5	3.1	6.6	5.9	13				
Cobalt	mg/kg	5	5	3.3	5.7	5.4	8.9				
Copper	mg/kg	5	4	24	82	67	158	7.8	7.8	7.8	7.8
Iron	mg/kg	5	5	5,020	10,468	9,542	18,700				
Lead	mg/kg	5	5	1.3	15	9.9	32				
Magnesium	mg/kg	5	5	1,300	5,130	4,422	7,280				
Manganese	mg/kg	5	5	86.8	493	363	1,040				
Mercury	mg/kg	5	1	0.2	0.2	0.2	0.2	0.06	0.1	0.1	0.2
Nickel	mg/kg	5	5	5.6	11	10	22				
Potassium	mg/kg	5	5	148	326	290	645				
Selenium	mg/kg	5	2	0.6	0.7	0.7	0.8	0.2	0.2	0.2	0.3
Silver	mg/kg	5						0.4	0.8	0.7	1
Sodium	mg/kg	5	1	34	34	34	34	88	124	121	148
Thallium	mg/kg	5						0.2	0.4	0.3	0.6
Vanadium	mg/kg	5	5	3.2	6.3	5.6	13				
Zinc	mg/kg	5	5	14	40	34	73				
Cyanide	mg/kg	5						0.9	2.2	2.0	3.1

Table D-6. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/kg	5						14	26	24	35
Toluene	µg/kg	5						14	26	24	35
Ethylbenzene	µg/kg	5						14	26	24	35
Styrene	µg/kg	5						14	26	24	35
Xylene (Total)	µg/kg	5						14	26	24	35
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/kg	5						14	26	24	35
1,3-Dichlorobenzene	µg/kg	5						59	111	105	150
1,4-Dichlorobenzene	µg/kg	5						59	111	105	150
Dichlorobenzene, non-specific	µg/kg	5						59	111	105	150
1,2,4-Trichlorobenzene	µg/kg	5						59	111	105	150
Halogenated Alkanes											
Chloromethane	µg/kg	5						14	26	24	35
Bromomethane	µg/kg	5						14	26	24	35
Chloroethane	µg/kg	5						14	26	24	35
Methylene chloride	µg/kg	5						14	26	24	35
1,1-Dichloroethane	µg/kg	5						14	26	24	35
Chloroform	µg/kg	5						14	26	24	35
1,2-Dichloroethane	µg/kg	5						14	26	24	35
1,1,1-Trichloroethane	µg/kg	5						14	26	24	35
Carbon tetrachloride	µg/kg	5						14	26	24	35
Bromodichloromethane	µg/kg	5						14	26	24	35
1,2-Dichloropropane	µg/kg	5						14	26	24	35
Dibromochloromethane	µg/kg	5						14	26	24	35
1,1,2-Trichloroethane	µg/kg	5						14	26	24	35
Bromoform	µg/kg	5						14	26	24	35
1,1,2,2-Tetrachloroethane	µg/kg	5						14	26	24	35
Halogenated Alkenes											
Vinyl chloride	µg/kg	5						14	26	24	35
1,1-Dichloroethene	µg/kg	5						14	26	24	35
1,2-Dichloroethene (Total)	µg/kg	5						14	26	24	35
cis -1,3-dichloropropene	µg/kg	5						14	26	24	35
trans -1,3-dichloropropene	µg/kg	5						14	26	24	35
Trichloroethene	µg/kg	5						14	26	24	35
Tetrachloroethene	µg/kg	5						14	26	24	35

Table D-6. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Ketones											
Acetone	µg/kg	5	5	75	178	139	410				
2-Butanone	µg/kg	5	4	19	78	62	150	31	31	31	31
2-Hexanone	µg/kg	5						14	26	24	35
4-Methyl-2-pentanone	µg/kg	5						14	26	24	35
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/kg	5						14	26	24	35
Isopropanol	µg/kg	1	1	49	49	49	49				
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/kg	5						59	111	105	150
2-Chloronaphthalene	µg/kg	5						59	111	105	150
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg	5						59	111	105	150
Acenaphthylene	µg/kg	5						59	111	105	150
Acenaphthene	µg/kg	5						59	111	105	150
Fluorene	µg/kg	5						59	111	105	150
Phenanthrene	µg/kg	5	2	44	47	46	49	59	110	102	150
Anthracene	µg/kg	5						59	111	105	150
1-Methylnaphthalene	µg/kg	5	5	37	177	118	490				
2-Methylnaphthalene	µg/kg	5						59	111	105	150
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg	5	4	89	120	116	160	59	59	59	59
Pyrene	µg/kg	5	4	40	105	92	160	59	59	59	59
Benz(a)anthracene	µg/kg	5	4	25	60	52	100	59	59	59	59
Chrysene	µg/kg	5	4	31	75	66	130	59	59	59	59
Benzo(b)fluoranthene	µg/kg	5	3	43	65	63	86	59	90	84	120
Benzo(k)fluoranthene	µg/kg	5	4	32	62	56	110	59	59	59	59
Benzo(a)pyrene	µg/kg	5	4	35	69	64	110	59	59	59	59
Indeno(1,2,3-cd)pyrene	µg/kg	5	2	33	48	45	62	59	110	102	150
Dibenz(a,h)anthracene	µg/kg	5						59	111	105	150
Benzo(g,h,i)perylene	µg/kg	5	1	64	64	64	64	59	106	100	150
Phenols											
Phenol	µg/kg	5						59	111	105	150
2-Methylphenol	µg/kg	5						59	111	105	150
4-Methylphenol	µg/kg	5	1	44	44	44	44	94	124	122	150
2,4-Dimethylphenol	µg/kg	5						59	111	105	150

Table D-6. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Substituted Phenols											
2-Chlorophenol	µg/kg	5						59	111	105	150
2,4-Dichlorophenol	µg/kg	5						59	111	105	150
4-Chloro-3-methylphenol	µg/kg	5						59	111	105	150
2,4,6-Trichlorophenol	µg/kg	5						59	111	105	150
2,4,5-Trichlorophenol	µg/kg	5						150	280	267	370
Pentachlorophenol	µg/kg	5						150	280	267	370
2-Nitrophenol	µg/kg	5						59	111	105	150
4-Nitrophenol	µg/kg	5						150	280	267	370
2,4-Dinitrophenol	µg/kg	5						150	280	267	370
2-Methyl-4,6-dinitrophenol	µg/kg	5						150	280	267	370
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg	5						59	111	105	150
Hexachlorobutadiene	µg/kg	5						59	111	105	150
Hexachlorocyclopentadiene	µg/kg	5						59	111	105	150
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/kg	5						59	111	105	150
4-Chlorophenyl-phenyl ether	µg/kg	5						59	111	105	150
4-Bromophenyl-phenyl ether	µg/kg	5						59	111	105	150
Bis(2-chloroethoxy)methane	µg/kg	5						59	111	105	150
2,2'-Oxybis(1-chloropropane)	µg/kg	5						59	111	105	150
Phthalates											
Dimethylphthalate	µg/kg	5						59	111	105	150
Diethylphthalate	µg/kg	5						59	111	105	150
Di-n-butylphthalate	µg/kg	5						59	111	105	150
Butylbenzylphthalate	µg/kg	5						59	111	105	150
Bis(2-ethylhexyl)phthalate	µg/kg	5	1	32	32	32	32	59	106	100	150
Di-n-octylphthalate	µg/kg	5						59	111	105	150
Miscellaneous Oxygenated Compounds											
Isophorone	µg/kg	5						59	111	105	150
Dibenzofuran	µg/kg	5						59	111	105	150
Carbazole	µg/kg	5						59	111	105	150
Organonitrogen Compounds											
Nitrobenzene	µg/kg	5						59	111	105	150
N-nitroso-di-*n* -propylamine	µg/kg	5						59	111	105	150
2-Nitroaniline	µg/kg	5						150	280	267	370
3-Nitroaniline	µg/kg	5						150	280	267	370

Table D-6. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
4-Nitroaniline	µg/kg	5						150	280	267	370
2,6-Dinitrotoluene	µg/kg	5						59	111	105	150
2,4-Dinitrotoluene	µg/kg	5						59	111	105	150
N-Nitrosodiphenylamine(1)	µg/kg	5						59	111	105	150
4-Chloroaniline	µg/kg	5						59	111	105	150
3,3-Dichlorobenzidine	µg/kg	5						59	111	105	150
Miscellaneous Compounds											
Heptadecane	µg/kg	1	1	150	150	150	150				
Hexadecane	µg/kg	1	1	150	150	150	150				
Tricarbonyl[n-phenyl-2-pyridinylmeth.]iron	µg/kg	1	1	61	61	61	61				
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg	5						2.3	4.2	4.0	5.6
β-Hexachlorocyclohexane	µg/kg	5						2.3	4.2	4.0	5.6
δ-Hexachlorocyclohexane	µg/kg	5						2.3	4.2	4.0	5.6
γ-Hexachlorocyclohexane (Lindane)	µg/kg	5						2.3	4.2	4.0	5.6
Aldrin	µg/kg	5						2.3	4.2	4.0	5.6
α-Chlordane	µg/kg	5						2.3	4.2	4.0	5.6
γ-Chlordane	µg/kg	5						2.3	4.2	4.0	5.6
Chlordane (Sum)	µg/kg	5						2.3	4.2	4.0	5.6
Dieldrin	µg/kg	5						4.4	8.3	7.9	11
α-Endosulfan	µg/kg	5						2.3	4.2	4.0	5.6
β-Endosulfan	µg/kg	5						4.4	8.3	7.9	11
Endosulfan sulfate	µg/kg	5						4.4	8.3	7.9	11
Endrin	µg/kg	5						4.4	8.3	7.9	11
Endrin aldehyde	µg/kg	5						4.4	8.3	7.9	11
Endrin ketone	µg/kg	5						4.4	8.3	7.9	11
Heptachlor	µg/kg	5						2.3	4.2	4.0	5.6
Heptachlor epoxide	µg/kg	5						2.3	4.2	4.0	5.6
Methoxychlor	µg/kg	5						23	42	40	56
4,4'-DDD	µg/kg	5						4.4	8.3	7.9	11
4,4'-DDE	µg/kg	5						4.4	8.3	7.9	11
4,4'-DDT	µg/kg	5	1	13	13	13	13	4.4	7.6	7.2	9.9
DDT and metabolites (Sum)	µg/kg	5	1	13	13	13	13	4.4	7.6	7.2	9.9
Toxaphene	µg/kg	5						230	424	405	560
Aroclor 1016	µg/kg	5						44	83	79	110
Aroclor 1221	µg/kg	5						89	166	158	220
Aroclor 1232	µg/kg	5						44	83	79	110

Table D-6. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Aroclor 1242	µg/kg	5						44	83	79	110
Aroclor 1248	µg/kg	5						44	83	79	110
Aroclor 1254	µg/kg	5						44	83	79	110
Aroclor 1260	µg/kg	5						44	83	79	110
PCBs (Sum)	µg/kg	5						44	83	79	110

Table D-7. Summary Statistics for Fish Tissue Collected from Onondaga Lake and Tributaries in 1992 (by PTI, Stearns and Wheler, and NYSDEC)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Onondaga Lake											
Conventional Analytes											
Lipid	%-ww	211	211	0.3	3.2	2.1	17				
Percent lipid	%-ww	14	14	0.6	3.7	2.2	17				
Percent moisture	%-ww	14	14	72	77	77	80				
Total solids	%-dw	4	4	100	100	100	100				
Total Metals and Cyanide											
Aluminum	mg/kg-ww	4						4.9	6.4	6.2	9.3
Antimony	mg/kg-ww	4	2	1.8	2.0	1.9	2.1	2.2	2.5	2.4	2.7
Arsenic	mg/kg-ww	4						0.1	0.2	0.2	0.2
Barium	mg/kg-ww	4						0.2	0.2	0.2	0.2
Beryllium	mg/kg-ww	4						0.2	0.2	0.2	0.2
Cadmium	mg/kg-ww	8	4	1.0E-02	2.3E-02	2.1E-02	3.0E-02	0.2	0.2	0.2	0.2
Calcium	mg/kg-ww	4	4	79	665	462	1,080				
Chromium	mg/kg-ww	4	3	0.6	0.7	0.7	0.73	0.3	0.3	0.3	0.3
Cobalt	mg/kg-ww	4						0.3	0.4	0.4	0.5
Copper	mg/kg-ww	4	1	1.5	1.5	1.5	1.5	0.5	1.1	0.9	2.0
Iron	mg/kg-ww	4						7.2	9.1	8.9	11
Lead	mg/kg-ww	8	6	6.0E-02	0.1	0.1	0.29	0.1	0.2	0.2	0.2
Magnesium	mg/kg-ww	4	4	169	238	234	275				
Manganese	mg/kg-ww	4	2	0.2	0.3	0.3	0.36	0.2	0.2	0.2	0.2
Ionic mercury	mg/kg-ww	72	47	7.3E-03	5.2E-02	3.3E-02	0.261	5.0E-03	0.0	0.0	6.6E-02
Methylmercury	mg/kg-ww	211	211	2.9E-02	0.6	0.4	3.2				
Mercury	mg/kg-ww	68	68	0.19	1.0	0.8	5.1				
Nickel	mg/kg-ww	4						1.2	1.6	1.5	2.0
Potassium	mg/kg-ww	4	4	2,720	3,423	3,383	3,920				
Selenium	mg/kg-ww	4	1	0.86	0.86	0.86	0.86	0.1	0.2	0.2	0.2
Silver	mg/kg-ww	4						0.3	0.4	0.4	0.5
Sodium	mg/kg-ww	4	4	355	486	472	689				
Thallium	mg/kg-ww	4						0.1	0.2	0.2	0.2
Vanadium	mg/kg-ww	4						0.3	0.4	0.4	0.5
Zinc	mg/kg-ww	4	1	17	17	17	17	5.5	7.0	6.9	8.4
Cyanide	mg/kg-ww	4	1	1.0	1.0	1.0	1.0	0.4	0.5	0.5	0.5

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/kg-ww	4						10	10	10	10
Toluene	µg/kg-ww	4	1	5.0	5.0	5.0	5.0	10	10	10	10
Ethylbenzene	µg/kg-ww	4						10	10	10	10
Styrene	µg/kg-ww	4						10	10	10	10
Xylene (Total)	µg/kg-ww	4						10	10	10	10
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/kg-ww	4						10	10	10	10
1,2-Dichlorobenzene	µg/kg-ww	8						25	90	63	160
1,3-Dichlorobenzene	µg/kg-ww	8						25	90	63	160
1,4-Dichlorobenzene	µg/kg-ww	8	3	37	45	44	58	25	53	37	160
1,2,4-Trichlorobenzene	µg/kg-ww	8						25	90	63	160
Halogenated Alkanes											
Chloromethane	µg/kg-ww	4						10	10	10	10
Bromomethane	µg/kg-ww	4						10	10	10	10
Chloroethane	µg/kg-ww	4						10	10	10	10
Methylene chloride	µg/kg-ww	4						10	10	10	10
1,1-Dichloroethane	µg/kg-ww	4						10	10	10	10
Chloroform	µg/kg-ww	4						10	10	10	10
1,2-Dichloroethane	µg/kg-ww	4						10	10	10	10
1,1,1-Trichloroethane	µg/kg-ww	4						10	10	10	10
Carbon tetrachloride	µg/kg-ww	4						10	10	10	10
Bromodichloromethane	µg/kg-ww	4						10	10	10	10
1,2-Dichloropropane	µg/kg-ww	4						10	10	10	10
Dibromochloromethane	µg/kg-ww	4						10	10	10	10
1,1,2-Trichloroethane	µg/kg-ww	4						10	10	10	10
Bromoform	µg/kg-ww	4						10	10	10	10
1,1,2,2-Tetrachloroethane	µg/kg-ww	4						10	10	10	10
Halogenated Alkenes											
1,2-Dichloroethene (Total)	µg/kg-ww	4						10	10	10	10
Vinyl chloride	µg/kg-ww	4						10	10	10	10
1,1-Dichloroethene	µg/kg-ww	4						10	10	10	10
cis -1,3-dichloropropene	µg/kg-ww	4						10	10	10	10
trans -1,3-dichloropropene	µg/kg-ww	4						10	10	10	10
Trichloroethene	µg/kg-ww	4						10	10	10	10
Tetrachloroethene	µg/kg-ww	4						10	10	10	10

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Ketones											
Acetone	µg/kg-ww	4	4	50	115	100	180				
2-Butanone	µg/kg-ww	4	2	6.0	7.0	6.9	8.0	10	10	10	10
2-Hexanone	µg/kg-ww	4						10	10	10	10
4-Methyl-2-pentanone	µg/kg-ww	4						10	10	10	10
Miscellaneous Volatile Organic Compounds											
Carbon disulfide	µg/kg-ww	4						10	10	10	10
Isopropanol	µg/kg-ww	3	3	8.0	10	9.4	13				
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Pentachlorobenzene	µg/kg-ww	4						25	26	26	27
Hexachlorobenzene	mg/kg-ww	18	11	2.0E-03	1.2E-02	7.5E-03	4.7E-02	2.5E-02	0.1	0.1	0.16
2-Chloronaphthalene	µg/kg-ww	8						25	90	63	160
1,2,4,5-Tetrachlorobenzene	µg/kg-ww	4						25	26	26	27
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg-ww	8	1	61	61	61	61	25	82	56	160
Acenaphthylene	µg/kg-ww	4						150	155	155	160
Acenaphthene	µg/kg-ww	8						25	90	63	160
Fluorene	µg/kg-ww	8						25	90	63	160
Phenanthrene	µg/kg-ww	8						25	90	63	160
Anthracene	µg/kg-ww	8						25	90	63	160
1-Methylnaphthalene	µg/kg-ww	4	4	520	1,253	1,085	2,300				
2-Methylnaphthalene	µg/kg-ww	8						25	90	63	160
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg-ww	8						25	90	63	160
Pyrene	µg/kg-ww	8						25	90	63	160
Benz(a)anthracene	µg/kg-ww	8						25	90	63	160
Chrysene	µg/kg-ww	8						25	90	63	160
Benzo(b)fluoranthene	µg/kg-ww	8						25	90	63	160
Benzo(k)fluoranthene	µg/kg-ww	8						25	90	63	160
Indeno(1,2,3-cd)pyrene	µg/kg-ww	8						25	90	63	160
Benzo(a)pyrene	µg/kg-ww	8						25	90	63	160
Dibenz(a,h)anthracene	µg/kg-ww	8						25	90	63	160
Benzo(g,h,i)perylene	µg/kg-ww	8						25	90	63	160
Phenols											
Phenol	µg/kg-ww	8						49	51	51	54
2-Methylphenol	µg/kg-ww	8						49	51	51	54

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
4-Methylphenol	µg/kg-ww	4									
2,4-Dimethylphenol	µg/kg-ww	8						49	51	51	54
4,3-Methylphenol	µg/kg-ww	4						49	51	51	54
Substituted Phenols											
2-Chlorophenol	µg/kg-ww	8						49	51	51	54
2,4-Dichlorophenol	µg/kg-ww	8						49	51	51	54
4-Chloro-3-methylphenol	µg/kg-ww	8						49	51	51	54
2,4,6-Trichlorophenol	µg/kg-ww	8						49	51	51	54
2,4,5-Trichlorophenol	µg/kg-ww	8						49	51	51	54
Pentachlorophenol	µg/kg-ww	8						49	51	51	54
2-Nitrophenol	µg/kg-ww	8						49	51	51	54
4-Nitrophenol	µg/kg-ww	8						49	51	51	54
2,4-Dinitrophenol	µg/kg-ww	8						49	51	51	54
2-Methyl-4,6-dinitrophenol	µg/kg-ww	4									
2,3,4,6,-Tetrachlorophenol	µg/kg-ww	4						49	51	51	54
2,6-Dichlorophenol	µg/kg-ww	4						49	51	51	54
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg-ww	8						25	90	63	160
Hexachlorobutadiene	µg/kg-ww	8						25	90	63	160
Hexachlorocyclopentadiene	µg/kg-ww	8						25	90	63	160
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/kg-ww	8						25	90	63	160
4-Chlorophenyl-phenyl ether	µg/kg-ww	8						25	90	63	160
4-Bromophenyl-phenyl ether	µg/kg-ww	8						25	90	63	160
Bis(2-chloroethoxy)methane	µg/kg-ww	8						25	90	63	160
2,2'-Oxybis(1-chloropropane)	µg/kg-ww	8						25	90	63	160
Phthalates											
Dimethylphthalate	µg/kg-ww	8						25	90	63	160
Diethylphthalate	µg/kg-ww	8						25	90	63	160
Di-*n*-butylphthalate	µg/kg-ww	8	4	44	56	55	68	150	155	155	160
Butylbenzylphthalate	µg/kg-ww	8						25	90	63	160
Bis(2-ethylhexyl)phthalate	µg/kg-ww	8	3	44	803	188	2,300	25	210	112	430
Di-*n*-octylphthalate	µg/kg-ww	8						25	90	63	160
Oxygenated Compounds											
Isophorone	µg/kg-ww	8						25	90	63	160
Benzyl alcohol	µg/kg-ww	4						49	51	51	54
Benzoic acid	µg/kg-ww	4						49	51	51	54

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Dibenzofuran	µg/kg-ww	8						25	90	63	160
Carbazole	µg/kg-ww	4						150	155	155	160
Organonitrogen Compounds											
Nitrobenzene	µg/kg-ww	8						25	90	63	160
N-nitroso-di-*n* -propylamine	µg/kg-ww	8						25	90	63	160
2-Nitroaniline	µg/kg-ww	8						25	209	101	400
3-Nitroaniline	µg/kg-ww	4						390	393	392	400
4-Nitroaniline	µg/kg-ww	8						25	209	101	400
2,6-Dinitrotoluene	µg/kg-ww	4						150	155	155	160
2,4-Dinitrotoluene	µg/kg-ww	8						25	90	63	160
N-Nitrosodiphenylamine(1)	µg/kg-ww	8						25	90	63	160
4-Chloroaniline	µg/kg-ww	8						25	90	63	160
3,3'-Dichlorobenzidine	µg/kg-ww										
1-Naphthylamine	µg/kg-ww	4						25	26	26	27
1-Nitrosopiperidine	µg/kg-ww	4						25	26	26	27
2-Picoline	µg/kg-ww	4						25	26	26	27
4,6-Dinitro-2-methylphenol	µg/kg-ww	4						49	51	51	54
4-Aminobiphenyl	µg/kg-ww	4						25	26	26	27
Diphenylhydrazine	µg/kg-ww	4						25	26	26	27
Azobenzene	µg/kg-ww	4						25	26	26	27
Benzidine	µg/kg-ww	4						25	26	26	27
Aniline	µg/kg-ww	4						25	26	26	27
1-Nitrosodibutylamine	µg/kg-ww	4						25	26	26	27
1-Nitroso-di-phenylamine	µg/kg-ww	4						25	26	26	27
p -Dimethylaminoazobenzene	µg/kg-ww	4						25	26	26	27
Pentachloronitrobenzene	µg/kg-ww	4						25	26	26	27
Phenacetin	µg/kg-ww	4						25	26	26	27
Pronamide	µg/kg-ww	4						25	26	26	27
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg-ww	8						1.6	3.0	2.6	5.0
β-Hexachlorocyclohexane	µg/kg-ww	8						1.6	3.0	2.6	5.0
δ-Hexachlorocyclohexane	µg/kg-ww	9	3	1.7	2.3	2.3	2.8	1	3.3	2.9	5.0
γ-Hexachlorocyclohexane (Lindane)	µg/kg-ww	9	1	9,000	9,000	9,000	9,000	1.6	3.0	2.6	5.0
Hexachlorocyclohexane (sum)	µg/kg-ww	10	4	2	2,252	18	9,000	1	3.3	2.9	5.0
Aldrin	µg/kg-ww	8						1.6	3.0	2.6	5.0
Dieldrin	µg/kg-ww	18	6	5.0	10	8.6	19	3.1	4.3	4.3	5.0
Aldrin and dieldrin (Sum)	µg/kg-ww	18	6	5.0	10	8.6	19	1.6	3.9	3.6	5.0

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
α-Chlordane	µg/kg-ww	4	3	8.4	19	16	33	1.6	1.6	1.6	1.6
γ-Chlordane	µg/kg-ww	4						1.6	1.6	1.6	1.7
Methoxychlordane	µg/kg-ww	4						180	218	216	250
Oxychlordane	µg/kg-ww	10						10	10	10	10
cis -Chlordane	µg/kg-ww	10	5	5.0	10	9.2	20	5	5.0	5.0	5.0
trans -Chlordane	µg/kg-ww	10	2	6.0	7.5	7.3	9.0	5	5.0	5.0	5.0
Chlordane (Sum)	µg/kg-ww	18	10	8.4	28	21	90	1.6	45.1	17.9	100
α-Endosulfan	µg/kg-ww	8	3	3.5	5.2	4.9	8	1.6	3.8	3.5	5.0
β-Endosulfan	µg/kg-ww	8						3.1	3.8	3.7	5.0
Endosulfan sulfate	µg/kg-ww	8	1	4.2	4.2	4.2	4.2	3.1	3.8	3.8	5.0
Endrin	mg/kg-ww	8	4	6.5E-03	1.5E-02	1.2E-02	3.2E-02	3.6E-03	4.3E-03	4.3E-03	5.0E-03
Endrin aldehyde	µg/kg-ww	8						3.1	3.8	3.7	5.0
Endrin ketone	µg/kg-ww	4						3.1	3.2	3.2	3.3
Heptachlor	µg/kg-ww	8						1.6	3.0	2.6	5.0
Heptachlor epoxide	µg/kg-ww	8	1	4.0	4.0	4.0	4.0	1.6	3.2	2.8	5.0
Methoxychlor	µg/kg-ww	4						16	16.3	16.2	17
4,4'-DDD	µg/kg-ww	18	14	6.0	31	19	170	3.6	4.3	4.3	5.0
4,4'-DDE	µg/kg-ww	18	14	10	64	36	400	3.6	4.3	4.3	5.0
4,4'-DDT	µg/kg-ww	18	12	4.0	10	8.4	27	3.2	4.0	3.9	5.0
DDT and metabolites (Sum)	mg/kg-ww	18	14	2.0E-02	0.1	6.3E-02	0.6	3.6E-03	4.3E-03	4.3E-03	5.0E-03
Toxaphene	µg/kg-ww	8						160	297.5	264.1	500
Mirex	µg/kg-ww	10						2.0	2.0	2.0	2.0
Photomirex	µg/kg-ww	10						5.0	5.0	5.0	5.0
Mirex & photomirex	µg/kg-ww	10						7.0	7.0	7.0	7.0
Heptachlor and heptachlor epoxide (Sum)	µg/kg-ww	8	1	4.0	4.0	4.0	4.0	1.6	3.2	2.8	5
Aroclor 1016	µg/kg-ww	10	10	134	559	450	1,607				
Aroclor 1248	µg/kg-ww										
Aroclor 1254	µg/kg-ww	4	4	1,000	4,500	3,122	11,000				
Aroclor 1254 & Aroclor 1260	µg/kg-ww	10	10	220	574	485	1,531				
PCBs (Sum)	µg/kg-ww	14	14	504	2,094	1,336	11,000				
PCDD/PCDFs											
2,3,7,8-Tetrachlorodibenzofuran	µg/kg-ww	4	3	1.3E-02	3.2E-02	2.7E-02	5.4E-02	2.9E-03	2.9E-03	2.9E-03	2.9E-03
2,3,7,8-Tetrachlorodibenzodioxin	µg/kg-ww	4						3.6E-03	4.1E-03	4.0E-03	4.8E-03

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Octachlorodibenzofuran	µg/kg-ww	4						5.8E-03	7.8E-03	7.6E-03	1.0E-02
Octachlorodibenzodioxin	µg/kg-ww	4						7.1E-03	9.8E-03	9.6E-03	1.1E-02
Total tetrachlorodibenzofurans	µg/kg-ww	4	3	1.3E-02	3.4E-02	2.8E-02	6.1E-02	3.8E-03	3.8E-03	3.8E-03	3.8E-03
Total tetrachlorodibenzodioxins	µg/kg-ww	4						4.0E-03	4.4E-03	4.4E-03	4.8E-03
Sum of pentachlorodibenzofurans	µg/kg-ww	4	2	2.3E-02	2.8E-02	2.7E-02	3.2E-02	4.5E-03	4.6E-03	4.5E-03	4.6E-03
Total pentachlorodibenzodioxins	µg/kg-ww	4						5.9E-03	7.5E-03	7.4E-03	8.5E-03
Sum of hexachlorodibenzofurans	µg/kg-ww	4						3.9E-03	4.9E-03	4.8E-03	5.9E-03
Sum of hexachlorodibenzodioxins	µg/kg-ww	4						6.8E-03	7.7E-03	7.7E-03	8.6E-03
Sum of heptachlorodibenzofurans	µg/kg-ww	4						2.1E-02	2.5E-02	2.5E-02	3.1E-02
Total heptachlorodibenzodioxins	µg/kg-ww	4						7.3E-03	8.7E-03	8.5E-03	1.0E-02
Mammalian TEQ (1/2 DL)	ng/kg-ww	4	3	3.1	5.3	4.9	7.8	2.0	2.0	2.0	2.0
Avian TEQ (1/2 DL)	ng/kg-ww	4	3	15	34	30	56	3.4	3.4	3.4	3.4
Miscellaneous											
3-Methylchloranthrene	µg/kg-ww	4						25	25	25	26
7,12-Dimethylbenzo(a)anthracene	µg/kg-ww	4						25	26	26	27
Dibenz(a,j)acridine	µg/kg-ww	4						25	25	25	26
Ethylmethane-sulfonate	µg/kg-ww	4						25	26	26	27
Methylmethane-sulfonate	µg/kg-ww	4						25	26	26	27
Transnonachlor	µg/kg-ww	8	4	5.0	9.3	8.5	16	5.0	5.0	5.0	5.0
Harbor Brook (Station W5, Site 704, Tributary F9)											
Conventional Analytes											
Lipid	%-ww	1	1	1.7	1.7	1.7	1.7				
Total Metals											
Methylmercury	mg/kg-ww	1	1	0.2	0.2	0.2	0.2				
Polychlorinated Biphenyls											
Aroclor 1016	µg/kg-ww	1						46	46	46	46
Aroclor 1221	µg/kg-ww	1						46	46	46	46
Aroclor 1232	µg/kg-ww	1						46	46	46	46
Aroclor 1242	µg/kg-ww	1						46	46	46	46
Aroclor 1248	µg/kg-ww	1	1	42	42	42	42				
Aroclor 1254	µg/kg-ww	1						46	46.0	46.0	46
Aroclor 1260	µg/kg-ww	1	1	35	35	35	35				
PCBs (Sum)	µg/kg-ww	1	1	77	77	77	77				

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Ley Creek (Station W6, Site 700, Tributary F11)											
Conventional Analytes											
Lipid	%-ww	1	1	2.4	2.4	2.4	2.4				
Percent lipid	%-ww	17	17	0.1	0.6	0.3	3.0				
Percent moisture	%-ww	5	5	73	76	76	80				
Total Metals											
Ionic mercury	mg/kg-ww	1						1.3E-02	1.3E-02	1.3E-02	1.3E-02
Methylmercury	mg/kg-ww	1	1	0.1	0.1	0.1	0.1				
Polychlorinated Biphenyls											
Aroclor 1016	µg/kg-ww	18						100	138	118	500
Aroclor 1221	µg/kg-ww	18						100	249	218	1000
Aroclor 1232	µg/kg-ww	1						390	390	390	390
Aroclor 1242	µg/kg-ww	1						390	390	390	390
Aroclor 1248	µg/kg-ww	18	16	110	758	500	2,400	100	100	100	100
Aroclor 1254	µg/kg-ww	18						100	138	118	500
Aroclor 1260	µg/kg-ww	18	5	230	388	361	700	100	131	113	500
PCBs (Sum)	µg/kg-ww	18	16	160	926	637	2,650	100	100	100	100
East Flume (Station W7, Site 703, Tributary F12)											
Conventional Analytes											
Lipid	%-ww	2	2	2.2	2.9	2.8	3.6				
Total Metals											
Ionic mercury	mg/kg-ww	2						1.1E-02	1.4E-02	1.4E-02	1.7E-02
Methylmercury	mg/kg-ww	2	2	0.2	0.2	0.2	0.3				
Polychlorinated Biphenyls											
Aroclor 1016	µg/kg-ww	2						38	46	45	53
Aroclor 1221	µg/kg-ww	2						38	46	45	53
Aroclor 1232	µg/kg-ww	2						38	46	45	53
Aroclor 1242	µg/kg-ww	2						38	46	45	53
Aroclor 1248	µg/kg-ww	2	2	92	106	105	120				
Aroclor 1254	µg/kg-ww	2						38	46	45	53
Aroclor 1260	µg/kg-ww	2	2	51	51	51	51				
PCBs (Sum)	µg/kg-ww	2	2	143	157	156	171				
Bloody Creek (Station W9 Site 707 Tributary F14)											
Conventional Analytes											
Lipid	%-ww	1	1	1.6	1.6	1.6	1.6				
Total Metals											
Ionic mercury	mg/kg-ww	1						1.3E-02	1.3E-02	1.3E-02	1.3E-02
Methylmercury	mg/kg-ww	1	1	0.1	0.1	0.1	0.1				

Table D-7. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Polychlorinated Biphenyls											
Aroclor 1016	µg/kg-ww	1						33	33	33	33
Aroclor 1221	µg/kg-ww	1						33	33	33	33
Aroclor 1232	µg/kg-ww	1						33	33	33	33
Aroclor 1242	µg/kg-ww	1						33	33	33	33
Aroclor 1248	µg/kg-ww	1	1	50	50	50	50				
Aroclor 1254	µg/kg-ww	1						33	33	33	33
Aroclor 1260	µg/kg-ww	1	1	47	47	47	47				
PCBs (Sum)	µg/kg-ww	1	1	97	97	97	97				
Ninemile Creek (Station W10, Site 701, Tributary F15)											
Conventional Analytes											
Lipid	%-ww	1	1	2.2	2.2	2.2	2.2				
Total Metals											
Ionic mercury	mg/kg-ww	1						1.3E-02	1.3E-02	1.3E-02	1.3E-02
Methylmercury	mg/kg-ww	1	1	0.2	0.2	0.2	0.2				
Polychlorinated Biphenyls											
Aroclor 1016	µg/kg-ww	1						18	18	18	18
Aroclor 1221	µg/kg-ww	1						18	18	18	18
Aroclor 1232	µg/kg-ww	1						18	18	18	18
Aroclor 1242	µg/kg-ww	1						18	18	18	18
Aroclor 1248	µg/kg-ww	1	1	41	41	41	41				
Aroclor 1254	µg/kg-ww	1						18	18	18	18
Aroclor 1260	µg/kg-ww	1	1	29	29	29	29				
PCBs (Sum)	µg/kg-ww	1	1	70	70	70	70				
Sawmill Creek (Station W11, Site 709, Tributary F16)											
Conventional Analytes											
Lipid	%-ww	1	1	1.4	1.4	1.4	1.4				
Total Metals											
Ionic mercury	mg/kg-ww	1						7.4E-03	7.4E-03	7.4E-03	7.4E-03
Methylmercury	mg/kg-ww	1	1	0.1	0.1	0.1	0.1				
Polychlorinated Biphenyls											
Aroclor 1016	µg/kg-ww	1						33	33	33	33
Aroclor 1221	µg/kg-ww	1						33	33	33	33
Aroclor 1232	µg/kg-ww	1						33	33	33	33
Aroclor 1242	µg/kg-ww	1						33	33	33	33
Aroclor 1248	µg/kg-ww	1						33	33	33	33
Aroclor 1254	µg/kg-ww	1						33	33	33	33
Aroclor 1260	µg/kg-ww	1						33	33	33	33
PCBs (Sum)	µg/kg-ww	1						33	33	33	33

Notes: TEQ – toxicity equivalent

Table D-8. Summary Statistics for Fish Tissue Collected from Onondaga Lake from 1994 to 1999 (by NYSDEC)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Percent lipid	%-ww	100	100	0.2	2.3	1.6	13				
Percent moisture	%-ww	100	100	57	78	78	99				
Total Metals and Cyanide											
Mercury	mg/kg-ww	561	561	0.2	1.0	1.0	3.3				
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	mg/kg-ww	100	76	2.0E-03	1.1E-02	6.4E-03	0.1	2.0E-03	2.0E-03	2.0E-03	2.0E-03
Pesticides/Polychlorinated Biphenyls											
α–Hexachlorocyclohexane	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
β–Hexachlorocyclohexane	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
δ–Hexachlorocyclohexane	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
γ–Hexachlorocyclohexane (Lindane)	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
cis-Nonachlor	mg/kg-ww	28	5	5.0E-03	7.2E-03	6.7E-03	1.3E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
trans-Nonachlor	mg/kg-ww	100	16	5.0E-03	7.8E-03	7.2E-03	1.3E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
Oxychlordane	mg/kg-ww	100	26	5.0E-03	1.5E-02	1.3E-02	4.8E-02	5.0E-03	9.9E-03	9.8E-03	1.0E-02
cis-Chlordane	mg/kg-ww	100	19	5.0E-03	6.4E-03	6.0E-03	1.3E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
trans-Chlordane	mg/kg-ww	100	11	5.0E-03	7.3E-03	6.9E-03	1.3E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
Chlordane (Sum)	mg/kg-ww	100	44	5.0E-03	1.9E-02	1.4E-02	9.5E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
Aldrin	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
Dieldrin	mg/kg-ww	100	13	5.0E-03	6.7E-03	6.4E-03	1.2E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
Aldrin and dieldrin (Sum)	mg/kg-ww	100	13	5.0E-03	6.7E-03	6.4E-03	1.2E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
α–Endosulfan	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
β–Endosulfan	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
Endosulfan sulfate	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
Endrin	mg/kg-ww	100						3.6E-03	5.0E-03	5.0E-03	5.0E-03
Endrin aldehyde	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
Heptachlor	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
Heptachlor epoxide	mg/kg-ww	28	6	5.0E-03	7.2E-03	6.8E-03	1.0E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
Heptachlor and heptachlor epoxide (Sum)	mg/kg-ww	28	6	5.0E-03	7.2E-03	6.8E-03	1.0E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
4,4'-DDD	mg/kg-ww	100	90	2.0E-03	9.2E-03	6.9E-03	5.2E-02	2.0E-03	2.0E-03	2.0E-03	2.0E-03
4,4'-DDE	mg/kg-ww	100	97	2.0E-03	2.3E-02	1.5E-02	0.2	2.0E-03	2.0E-03	2.0E-03	2.0E-03
4,4'-DDT	mg/kg-ww	100	82	2.0E-03	1.0E-02	6.7E-03	8.2E-02	2.0E-03	2.0E-03	2.0E-03	2.0E-03
DDT and metabolites (Sum)	mg/kg-ww	100	97	2.0E-03	4.6E-02	2.5E-02	0.6	2.0E-03	2.0E-03	2.0E-03	2.0E-03
Ortho-para DDD	mg/kg-ww	28	2	5.0E-03	5.0E-03	5.0E-03	5.0E-03	5.0E-03	5.0E-03	5.0E-03	5.0E-03
Ortho-para DDE	mg/kg-ww	28	7	5.0E-03	9.9E-03	8.6E-03	2.4E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03
Ortho-para DDT	mg/kg-ww	28						5.0E-03	5.0E-03	5.0E-03	5.0E-03
Ortho-para DDT sum	mg/kg-ww	28	7	5.0E-03	1.1E-02	9.7E-03	2.4E-02	5.0E-03	5.0E-03	5.0E-03	5.0E-03

Table D-8. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Mirex	mg/kg-ww	100	3	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03
Photomirex	mg/kg-ww	100						5.0E-03	5.0E-03	5.0E-03	5.0E-03
Mirex and photomirex	mg/kg-ww	7						7.0E-03	7.0E-03	7.0E-03	7.0E-03
Aroclor 1016	mg/kg-ww	65	60	2.2E-02	0.2	0.1	1.1	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Aroclor 1242	mg/kg-ww	28	28	9.0E-02	0.4	0.3	2.0				
Aroclors 1254 and 1260	mg/kg-ww	100	98	2.0E-02	0.4	0.3	1.9	2.0E-02	2.0E-02	2.0E-02	2.0E-02
PCBs (Sum)	mg/kg-ww	100	98	3.0E-02	0.7	0.5	3.9	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Dioxins/Furans											
2,3,7,8-Tetrachlorodibenzofuran	ng/kg-ww	23	23	0.2	9.1	3.8	40				
Total tetrachlorodibenzofurans	ng/kg-ww	8	8	0.7	2.7	1.8	8.7				
2,3,7,8-Tetrachlorodibenzodioxin	ng/kg-ww	23	20	0.1	1.0	0.7	3.1	0.2	0.7	0.6	1.1
Total tetrachlorodibenzodioxins	ng/kg-ww	8	7	0.1	0.3	0.3	0.5	0.9	0.9	0.9	0.9
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg-ww	23	17	0.3	2.5	1.4	7.6	0.2	0.7	0.6	1.2
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg-ww	23	23	0.3	13	4.2	71				
Sum of pentachlorodibenzofurans	ng/kg-ww	8	8	0.3	1.3	1.0	3.2				
1,2,3,7,8-Pentachlorodibenzodioxin	ng/kg-ww	23	16	0.3	1.7	1.2	4.7	0.6	1.5	1.3	3.3
Total pentachlorodibenzodioxins	ng/kg-ww	8	2	0.7	0.8	0.8	0.8	1.1	1.65	1.5	3.3
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg-ww	23	16	0.2	1.9	0.9	7.2	0.2	1.3	1.0	2.8
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg-ww	23	13	0.1	0.9	0.5	3.0	0.1	1.0	0.7	2.5
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg-ww	23	13	0.1	0.5	0.3	1.4	0.1	1.2	0.8	3.2
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg-ww	23						0.1	0.7	0.3	3.6
Sum of hexachlorodibenzofurans	ng/kg-ww	8	2	0.3	0.4	0.4	0.5	0.9	1.5	1.3	2.8
1,2,3,4,7,8-Hexachlorodibenzodioxin	ng/kg-ww	23	9	0.1	0.5	0.3	1.0	0.1	2.9	0.9	17
1,2,3,6,7,8-Hexachlorodibenzodioxin	ng/kg-ww	23	15	0.3	1.07	0.8	3.2	0.2	3.9	2.1	14
1,2,3,7,8,9-Hexachlorodibenzodioxin	ng/kg-ww	23	8	0.1	0.3	0.3	0.8	0.1	2.4	0.7	14
Sum of hexachlorodibenzodioxins	ng/kg-ww	8	2	0.4	0.4	0.4	0.4	1.6	5.1	3.8	14
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg-ww	23	13	0.3	1.0	0.7	3.3	0.1	1.6	1.0	4.5
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg-ww	23						1.0E-02	1.1	0.3	6.5
Sum of heptachlorodibenzofurans	ng/kg-ww	8						1.0	2.0	1.8	4.5
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	ng/kg-ww	23	14	0.2	0.9	0.6	2.7	0.2	25	7.3	130
Total heptachlorodibenzodioxins	ng/kg-ww	8						1.9	28	11	130
Octachlorodibenzofuran	ng/kg-ww	23	8	0.1	0.3	0.2	0.6	0.1	2.2	0.8	10
Octachlorodibenzodioxin	ng/kg-ww	23	15	0.4	1.0	0.8	2.3	5.5	100	42	300
Mammalian TEQ (1/2 DL)	ng/kg-ww	23	23	1.0	11	5.7	46				
Avian TEQ (1/2 DL)	ng/kg-ww	23	23	1.9	25	13	94				

Notes: TEQ – toxicity equivalent

Table D-107. Ecological Screening Values Used for Organic Chemicals in Surface Water of Onondaga Lake[a]

Chemical	Units	USEPA AWQC-FCV (Aquatic Life)	USEPA Chronic (Aquatic Life)	USEPA Acute (Aquatic Life)	USEPA CCC (Aquatic Life)	USEPA CMC (Aquatic Life)	USEPA Tier II (Aquatic Life)	NYSDEC Acute (Aquatic)	NYSDEC Chronic (Aquatic)
Conventional Parameters									
Total chloride	mg/L				230	860			
Volatile Organic Compounds									
Aromatic Hydrocarbons									
Benzene	µg/L						46		
Toluene	µg/L						130		
Ethylbenzene	µg/L						290		
Xylene isomers (total)	µg/L						1.8		
Chlorinated Aromatic Hydrocarbons									
Chlorobenzene	µg/L						130		5
1,2-Dichlorobenzene	µg/L						14		
1,3-Dichlorobenzene	µg/L						71		
1,4-Dichlorobenzene	µg/L						15		
Dichlorobenzenes (sum)	µg/L		763	1,120					5
1,2,4-Trichlorobenzene	µg/L						110		
Trichlorobenzenes (sum)	µg/L								5
Halogenated Alkanes									
1,1-Dichloroethane	µg/L						47		
1,1,1-Trichloroethane	µg/L		9,400	18,000			62		
1,2-Dichloropropane	µg/L		5,700	23,000					
1,1,2-Trichloroethane	µg/L		9,400	18,000					
1,1,2,2-Tetrachloroethane	µg/L		2,400	9,320			420		
Halogenated Alkenes									
cis-1,3-Dichloropropene	µg/L		244	6,060					
trans-1,3-Dichloropropene	µg/L		244	6,060					
Trichloroethene	µg/L		21,900	45,000			350		
Tetrachloroethene	µg/L		840	5,280			120		
Semivolatile Organic Compounds									
Chlorinated Aromatic Hydrocarbons									
Hexachlorobenzene	µg/L		3.68	6					
Low Molecular Weight Polycyclic Aromatic Hydrocarbons									
Naphthalene	µg/L		620	2,300			24		
Acenaphthene	µg/L	23	520	1,700					
Fluorene	µg/L						3.9		
Phenanthrene	µg/L	6.3							
High Molecular Weight Polycyclic Aromatic Hydrocarbons									
Fluoranthene	µg/L	8.1							
Benzo[a]pyrene	µg/L						0.014		
Phenols									
Phenol	µg/L		2,560	10,200					
Substituted Phenols									
2-Chlorophenol	µg/L			4,380					
2,4-Dichlorophenol	µg/L		365	2,020					
2,4,6-Trichlorophenol	µg/L		970						
2,4,5-Trichlorophenol	µg/L		63	100					
Pentachlorophenol	µg/L	13			15	19		19.5	15

Table D-107. (cont.)

Chemical	Units	USEPA AWQC-FCV (Aquatic Life)	USEPA Chronic (Aquatic Life)	USEPA Acute (Aquatic Life)	USEPA CCC (Aquatic Life)	USEPA CMC (Aquatic Life)	USEPA Tier II (Aquatic Life)	NYSDEC Acute (Aquatic)	NYSDEC Chronic (Aquatic)
2-Nitrophenol	µg/L		150	230					
4-Nitrophenol	µg/L		150	230					
Chlorinated Aliphatic Hydrocarbons									
Hexachloroethane	µg/L		540	980			12		
Hexachlorobutadiene	µg/L		9.3	90					1
Hexachlorocyclopentadiene	µg/L		5.2	7					0.45
Halogenated Ethers									
4-Bromophenyl-phenyl ether	µg/L						1.5		
Phthalates									
Diethyl phthalate	µg/L						220		
Di-*n* -butyl phthalate	µg/L						33		
Butylbenzyl phthalate	µg/L						19		
bis[2-Ethylhexyl]phthalate	µg/L						32		0.6
Miscellaneous Oxygenated Compounds									
Dibenzofuran	µg/L						20		
Organonitrogen Compounds									
2,4-Dinitrotoluene	µg/L		230	330					
Pesticides/Polychlorinated Biphenyls									
γ-Hexachlorocyclohexane	µg/L	0.08	0.08			0.95		0.95	
Aldrin	µg/L					3			
α-Chlordane	µg/L				0.0043	2.4			
γ-Chlordane	µg/L				0.0043	2.4			
Dieldrin	µg/L	0.062			0.056	0.24			
α-Endosulfan	µg/L						0.051		0.009
β-Endosulfan	µg/L						0.051		0.009
Endosulfan (sum of α- and β-)	µg/L				0.056	0.22			
Endosulfan sulfate	µg/L								
Endrin	µg/L	0.061			0.036	0.086		0.086	0.036
Heptachlor	µg/L				0.0038	0.52	0.0069		
Heptachlor epoxide	µg/L				0.0038	0.52			
Methoxychlor	µg/L				0.03		0.019		0.03
4,4'-DDT	µg/L				0.001	1.1	0.013		
Toxaphene	µg/L				0.0002	0.73	0.011		0.005
PCBs (sum of Aroclors)	µg/L			2	0.014		0.19		0.00012
Dioxins/Furans									
Total dioxins	µg/L		0.0056						

Notes: [a] Guidelines are applied to both the dissolved and unfiltered forms

NYSDEC Water Quality Standards (NYSDEC, 1999)

NYSDEC – New York State Department of Environmental Conservation

Dichlorobenzenes standard applied to the sum of 1,2-, 1,3-, and 1,4-dichlorobenzene (NYSDEC, 1999).

Trichlorobenzes standard applied to the sum of 1,2,3-, 1,2,4-, and 1,3,5-trichlorobenzene (NYSDEC, 1998)

Pentachlorophenol standards calculated to reflect site-specific pH (average in 1998 = 7.8) (NYSDEC, 1998)

Standard for "sum of p,p'-DDT, p,p'-DDE, and p,p'-DDD" applied to DDT and metabolites (sum)

Endosulfan standard applied separately to alpha-endosulfan and beta-endosulfan

PCB standard is for wildlife protection (vs. specific acute or chronic effects) and applies to sum of these substances (NYSDEC, 1998)

Standard applied to sum of Aroclors

USEPA Surface Water Benchmarks (USEPA, 1996)
USEPA – US Environmental Protection Agency
AWQC/FCV – USEPA chronic ambient water quality criteria or USEPA-derived final chronic values (USEPA 1986a,b, 1987)
Tier II – Values calculated using Great Lakes Water Quality Initiative Tier II methodology (40 CFR 9, 122, 123, 131, and 132 [1995])
All Tier II values as calculated in Suter and Mabrey (1994), except DDT and heptachlor (USEPA support documents cited) and the following (calculated for USEPA [1996]): 4-bromophenyl phenyl ether; butylbenzyl phthalate; 1,2-, 1,3-, and 1,4-dichlorobenzene; alpha-endosulfan; beta-endosulfan; fluorene; hexachloroethane; methoxychlor; toxaphene; 1,2,4-trichlorobenzene; and m-Xylene.
m-Xylene Tier II value applied to total xylene isomers
Pentachlorophenol AWQC calculated to reflect site-specific pH (average in 1998 = 7.8) (USEPA, 1996)
DDT Tier II value applied to 4,4'-DDT
PCBs Tier II value applied to sum of Aroclors
Trichloroethylene and tetrachloroethylene Tier II values applied to trichloroethene and tetrachloroethene

USEPA Recommended Water Quality Criteria (USEPA, 1999)
CCC – criteria continuous concentration
CMC – criteria maximum concentration
Pentachlorophenol criteria calculated to reflect site-specific pH (average in 1998 = 7.8) (USEPA, 1999)
Chlordane isomers not specified; criteria applied separately to each chlordane isomer
Dieldrin CCC derivation did not consider dietary exposure (USEPA, 1999)
Endosulfan criteria presented separately for alpha- and beta-endosulfan are more appropriately applied to the sum of these isomers (USEPA, 1999)
Endrin CCC derivation did not consider dietary exposure (USEPA, 1999)
Heptachlor epoxide CCC derived from data for heptachlor (USEPA, 1999)
The CCC for PCBs applied to sum of Aroclors

USEPA Water Quality Criteria
USEPA 1986a values used only when USEPA 1999 values unavailable
Dichlorobenzenes criteria applied to sum of dichlorobenzene isomers
Dichloropropane isomer not specified; criteria applied to 1,2-dichloropropane
Trichlorinated ethanes criteria applied separately to trichloroethane isomers. Chronic value is from USEPA (1986a)
Tetrachlorinated ethanes acute criterion (USEPA, 1986a) applied to 1,1,2,2-tetrachloroethane
Dichloropropene isomers not specified; criteria applied separately to 1,3-dichloropropene isomers
Trichloroethylene and tetrachloroethylene criteria applied to trichloroethene and tetrachloroethene
Nitrophenols isomers not specified; criteria applied separately to nitrophenol isomers
PCBs acute criterion applied to sum of Aroclors

References

NYSDEC. 1999. Ambient water quality standards and guidance values and groundwater effluent limitations. New York State Department of Environmental Conservation, Division of Water Technical and Operational Guidance Series (1.1.1), Albany, NY.

Suter, G.W., II, and C.L. Tsao. 1996. Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1996 Revision. Prepared for the US Department of Energy, Office of Environmental Management. Oak Ridge National Laboratory, Oak Ridge, TN.

USEPA. 1986a. Quality criteria for water. EPA440/5-86/001. US Environmental Protection Agency, Office of Regulations and Standards, Washington, DC.

USEPA. 1986b. Update #1 to Quality criteria for water. US Environmental Protection Agency, Office of Regulations and Standards, Washington, DC.

USEPA. 1987. Update #2 to Quality criteria for water. US Environmental Protection Agency, Office of Regulations and Standards, Washington, DC.

USEPA. 1991. Quality criteria for water, update. US Environmental Protection Agency, Office of Science and Technology.

USEPA. 1999. National recommended water quality criteria - Correction. EPA 822-Z-99-001. US Environmental Protection Agency, Office of Water.

Table D-108. Ecological Screening Values Used for Metals in Surface Water of Onondaga Lake[a]

Chemical	Measurement Basis	Units	USEPA Acute (Aquatic Life)	USEPA Chronic (Aquatic Life)	USEPA AWQC-FCV (Aquatic Life)	USEPA CCC (Aquatic Life)	USEPA CMC (Aquatic Life)	USEPA Tier II (Aquatic Life)	NYSDEC Acute (Aquatic)	NYSDEC Chronic (Aquatic)	NYSDEC (Wildlife)
Aluminum	dissolved	µg/L				87	750			100	
Aluminum	unfiltered	µg/L				87				100	
Antimony	dissolved	µg/L	9,000	1,600							
Arsenic	dissolved	µg/L			190	150	340		340	150	
Barium	dissolved	µg/L						3.9			
Beryllium	dissolved	µg/L	130	5.3				5.1		1,100	
Beryllium	unfiltered	µg/L								1,100	
Cadmium	dissolved	µg/L			1.3	2.8	5.9		5.4	2.6	
Chromium	dissolved	µg/L			228	94.8	729		729	94.8	
Cobalt	dissolved	µg/L						3		5	
Cobalt	unfiltered	µg/L								5	
Copper	dissolved	µg/L			14.7	11.6	17.8		17.8	11.6	
Iron	dissolved	µg/L			1,000	1,000			300	300	
Iron	unfiltered	µg/L				1,000			300	300	
Lead	dissolved	µg/L			3.7	3.5	89		134	5.2	
Manganese	dissolved	µg/L						80			
Methylmercury	dissolved	µg/L						0.003			
Mercury	dissolved	µg/L			1.3	0.77	1.4		1.4	0.77	0.0026
Nickel	dissolved	µg/L			203	67	604		604	67	
Selenium	dissolved	µg/L			5	4.6				4.6	
Selenium	unfiltered	µg/L									
Silver	dissolved	µg/L					5.8		6.8	0.1	
Silver	unfiltered	µg/L								0.1	
Thallium	dissolved	µg/L	1,400	40					20	8	
Thallium	unfiltered	µg/L							20	8	
Vanadium	dissolved	µg/L						19	190	14	
Vanadium	unfiltered	µg/L							190	14	
Zinc	dissolved	µg/L			135	152	151		151	107	
Cyanide	dissolved	µg/L			5.2	5.2	22		22	5.2	
Cyanide	unfiltered	µg/L				5.2	22		22	5.2	

Notes: [a] Cadmium, chromium, copper, lead, nickel, and zinc standards calculated using the lowest water hardness observed in 1992 (135 mg/L $CaCO_3$)

NYSDEC Water Quality Standards (NYSDEC, 1999)

NYSDEC – New York State Department of Environmental Conservation

Arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc standards refer to dissolved fraction (NYSDEC, 1999), and were compared only with dissolved concentrations. Standards for other metals were compared with both unfiltered and dissolved concentrations.

Ionic aluminum standard applied to aluminum

Beryllium, cobalt, thallium, and vanadium standards refer to acid-soluble forms (NYSDEC, 1999) and were applied to both unfiltered and dissolved concentrations

Mercury standard applied to total mercury

Ionic silver standard applied to silver.

Free CN (sum of HCN and CN^-) standard applied to cyanide.

Table D-108. (cont.)

USEPA Surface Water Benchmarks (USEPA, 1996)
USEPA – US Environmental Protection Agency
AWQC/FCV – USEPA chronic ambient water quality criteria or USEPA-derived final chronic values (USEPA, 1986a,b, 1987)
Tier II – Values calculated using Great Lakes Water Quality Initiative Tier II methodology (40 CFR 9, 122, 123, 131, and 132 [1995]).
AWQC/FCV and Tier II benchmarks for metals refer to total dissolved chemical (USEPA, 1996) and were compared only with dissolved concentrations. Standards for metals were compared to both unfiltered and dissolved concentrations.
Inorganic mercury AWQC/FCV applied to total mercury

USEPA Recommended Water Quality Criteria (USEPA, 1999)
CCC – criteria continuous concentration
CMC – criteria maximum concentration
Criteria for metals (other than aluminum, iron, and cyanide) refer to dissolved fraction (USEPA, 1999) and were compared only with dissolved concentrations. Standards for other metals were compared with both unfiltered and dissolved concentrations.
Total aluminum criteria applied to aluminum.
Total arsenic criteria applied to arsenic.
Total mercury criteria were derived for inorganic mercury, but applicable to total mercury. Mercury criteria will be underprotective "if a substantial portion of the mercury in the water column is methylmercury" (USEPA, 1999)
Total selenium CCC applied to selenium. CCC for dissolved fraction calculated using 0.922 conversion factor (multiplied by standard for total recoverable selenium) (USEPA, 1999)
Free cyanide criteria applied to cyanide.

USEPA Water Quality Criteria
USEPA 1986a values used only when USEPA 1999 values unavailable.
Criteria for metals assumed to refer to dissolved fraction.

References
NYSDEC. 1999. Ambient water quality standards and guidance values and groundwater effluent limitations. New York State Department of Environmental Conservation,

Suter, G.W., II, and C.L. Tsao. 1996. Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1996 Revision. Prepared for the

USEPA. 1986a. Quality criteria for water. EPA440/5-86/001. US Environmental Protection Agency, Office of Regulations and Standards, Washington, DC.

USEPA. 1986b. Update #1 to Quality criteria for water. US Environmental Protection Agency, Office of Regulations and Standards, Washington, DC.

USEPA. 1987. Update #2 to Quality criteria for water. US Environmental Protection Agency, Office of Regulations and Standards, Washington, DC.

USEPA. 1996. Ecotox thresholds. EPA 540/F-95/038. US Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, DC.

USEPA. 1999. National Recommended Water Quality Criteria - Correction. EPA 822-Z-99-001. US Environmental Protection Agency, Office of Water.

Table D-109. Dry Weight Basis Ecological Screening Values Used for Sediments in Onondaga Lake

Chemical	Units	Measurement Basis	NYSDEC LEL (Benthos)	NYSDEC SEL (Benthos)	OME NOEL (Benthos)	OME LEL (Benthos)	OME SEL (Benthos)	USEPA TEC (Benthos)	USEPA PEC (Benthos)	USEPA NEC (Benthos)	NOAA ERL (Benthos)
Total Metals and Cyanide*											
Aluminum	mg/kg	dry							58,030	73,160	
Antimony	mg/kg	dry	2	25							
Arsenic	mg/kg	dry	6	33		6	33	12.1	57	92.9	8.2
Barium	mg/kg	dry									
Beryllium	mg/kg	dry									
Cadmium	mg/kg	dry	0.6	9		0.6	10	0.592	11.7	41.1	1.2
Calcium	mg/kg	dry									
Chromium	mg/kg	dry	26	110		26	110	56	159	312	81
Cobalt	mg/kg	dry									
Copper	mg/kg	dry	16	110		16	110	28	77.7	54.8	34
Iron	mg/kg	dry	20,000	40,000		20,000	40,000				
Lead	mg/kg	dry	31	110		31	250	34.2	396	68.7	47
Magnesium	mg/kg	dry									
Manganese	mg/kg	dry	460	1,100		460	1,100	1,673	1,080	819	
Mercury	ng/g	dry	150	1,300		200	2,000				150
Nickel	mg/kg	dry	16	50		16	75	39.6	38.5	37.9	21
Potassium	mg/kg	dry									
Selenium	mg/kg	dry									
Silver	mg/kg	dry	1	2.2							
Sodium	mg/kg	dry									
Thallium	mg/kg	dry									
Vanadium	mg/kg	dry									
Zinc	mg/kg	dry	120	270		120	820	159	1,532	541	150
Cyanide	mg/kg	dry									
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/kg	dry									
Toluene	µg/kg	dry									
Ethylbenzene	µg/kg	dry									
Styrene	µg/kg	dry									
Xylene isomers (total)	µg/kg	dry									
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/kg	dry									
1,2-Dichlorobenzene	µg/kg	dry									
1,3-Dichlorobenzene	µg/kg	dry									
1,4-Dichlorobenzene	µg/kg	dry									
Dichlorobenzenes (sum)	µg/kg	dry									
1,2,4-Trichlorobenzene	µg/kg	dry									
Halogenated Alkanes											
Chloromethane	µg/kg	dry									
Bromomethane	µg/kg	dry									
Chloroethane	µg/kg	dry									
Methylene chloride	µg/kg	dry									
1,1-Dichloroethane	µg/kg	dry									
Chloroform	µg/kg	dry									
1,2-Dichloroethane	µg/kg	dry									
1,1,1-Trichloroethane	µg/kg	dry									
Carbon tetrachloride	µg/kg	dry									
Bromodichloromethane	µg/kg	dry									

Table D-109. (cont.)

Chemical	Units	Measurement Basis	NYSDEC LEL (Benthos)	NYSDEC SEL (Benthos)	OME NOEL (Benthos)	OME LEL (Benthos)	OME SEL (Benthos)	USEPA TEC (Benthos)	USEPA PEC (Benthos)	USEPA NEC (Benthos)	NOAA ERL (Benthos)
1,2-Dichloropropane	µg/kg	dry									
Dibromochloromethane	µg/kg	dry									
1,1,2-Trichloroethane	µg/kg	dry									
Bromoform	µg/kg	dry									
1,1,2,2-Tetrachloroethane	µg/kg	dry									
Halogenated Alkenes											
Aroclor 1268	µg/kg	dry									
Vinyl chloride	µg/kg	dry									
1,1-Dichloroethene	µg/kg	dry									
1,2-Dichloroethene isomers (total)	µg/kg	dry									
cis -1,3-Dichloropropene	µg/kg	dry									
trans -1,3-Dichloropropene	µg/kg	dry									
Trichloroethene	µg/kg	dry									
Tetrachloroethene	µg/kg	dry									
Ketones											
Acetone	µg/kg	dry									
2-Butanone	µg/kg	dry									
2-Hexanone	µg/kg	dry									
4-Methyl-2-pentanone	µg/kg	dry									
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/kg	dry									
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/kg	dry			10	20					
2-Chloronaphthalene	µg/kg	dry									
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg	dry						32.8	688	290	160
Acenaphthylene	µg/kg	dry									
Acenaphthene	µg/kg	dry									16
Fluorene	µg/kg	dry						34.6	652	1,800	
Phenanthrene	µg/kg	dry				560					240
Anthracene	µg/kg	dry				220		31.6	548	1,700	
2-Methylnaphthalene	µg/kg	dry									
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg	dry				750		64.2	834	7,500	600
Pyrene	µg/kg	dry				490		570	3,225	6,100	665
Benz[a]anthracene	µg/kg	dry						260	4,200	3,500	
Chrysene	µg/kg	dry				340		500	5,200	4,000	
Benzo[b]fluoranthene	µg/kg	dry									
Benzo[k]fluoranthene	µg/kg	dry				240					
Benzo[a]pyrene	µg/kg	dry				370		350	394	440	430
Indeno[1,2,3-cd]pyrene	µg/kg	dry				200		78	837	3,800	
Dibenz[a,h]anthracene	µg/kg	dry							28.2	870	
Benzo[ghi]perylene	µg/kg	dry				170		290	6,300	3,800	
Phenols											
Phenol	µg/kg	dry									
2-Methylphenol	µg/kg	dry									
4-Methylphenol	µg/kg	dry									
2,4-Dimethylphenol	µg/kg	dry									

Table D-109. (cont.)

Chemical	Units	Measurement Basis	NYSDEC LEL (Benthos)	NYSDEC SEL (Benthos)	OME NOEL (Benthos)	OME LEL (Benthos)	OME SEL (Benthos)	USEPA TEC (Benthos)	USEPA PEC (Benthos)	USEPA NEC (Benthos)	NOAA ERL (Benthos)
Substituted Phenols											
2-Chlorophenol	µg/kg	dry									
2,4-Dichlorophenol	µg/kg	dry									
4-Chloro-3-methylphenol	µg/kg	dry									
2,4,6-Trichlorophenol	µg/kg	dry									
2,4,5-Trichlorophenol	µg/kg	dry									
Pentachlorophenol	µg/kg	dry									
2-Nitrophenol	µg/kg	dry									
4-Nitrophenol	µg/kg	dry									
2,4-Dinitrophenol	µg/kg	dry									
2-Methyl-4,6-dinitrophenol	µg/kg	dry									
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg	dry									
Hexachlorobutadiene	µg/kg	dry									
Hexachlorocyclopentadiene	µg/kg	dry									
Halogenated Ethers											
bis[2-chloroethyl]ether	µg/kg	dry									
4-Chlorophenyl-phenyl ether	µg/kg	dry									
4-Bromophenyl-phenyl ether	µg/kg	dry									
bis[2-chloroethoxy]methane	µg/kg	dry									
2,2'-Oxybis[1-chloropropane]	µg/kg	dry									
Phthalates											
Dimethyl phthalate	µg/kg	dry									
Diethyl phthalate	µg/kg	dry									
Di-*n* -butyl phthalate	µg/kg	dry									
Butylbenzyl phthalate	µg/kg	dry									
bis[2-Ethylhexyl]phthalate	µg/kg	dry									
Di-*n* -octyl phthalate	µg/kg	dry									
Miscellaneous Oxygenated Compounds											
Isophorone	µg/kg	dry									
Dibenzofuran	µg/kg	dry									
Carbazole	µg/kg	dry									
Organonitrogen Compounds											
Nitrobenzene	µg/kg	dry									
N -nitroso-di-*n* -propylamine	µg/kg	dry									
2-Nitroaniline	µg/kg	dry									
3-Nitroaniline	µg/kg	dry									
4-Nitroaniline	µg/kg	dry									
2,6-Dinitrotoluene	µg/kg	dry									
2,4-Dinitrotoluene	µg/kg	dry									
N -nitrosodiphenylamine	µg/kg	dry									
4-Chloroaniline	µg/kg	dry									
3,3'-Dichlorobenzidine	µg/kg	dry									
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg	dry				6					
β-Hexachlorocyclohexane	µg/kg	dry				5					
δ-Hexachlorocyclohexane	µg/kg	dry									
γ-Hexachlorocyclohexane	µg/kg	dry			0.2	3					
Aldrin	µg/kg	dry				2					
Chlordane	µg/kg	dry			5	7					

Table D-109. (cont.)

Chemical		Units	Measurement Basis	NYSDEC LEL (Benthos)	NYSDEC SEL (Benthos)	OME NOEL (Benthos)	OME LEL (Benthos)	OME SEL (Benthos)	USEPA TEC (Benthos)	USEPA PEC (Benthos)	USEPA NEC (Benthos)	NOAA ERL (Benthos)
	α-Chlordane	µg/kg	dry									
	γ-Chlordane	µg/kg	dry									
	Dieldrin	µg/kg	dry			0.6	2					
	α-Endosulfan	µg/kg	dry									
	β-Endosulfan	µg/kg	dry									
	Endosulfan sulfate	µg/kg	dry									
	Endrin	µg/kg	dry			0.5	3					
	Endrin aldehyde	µg/kg	dry									
	Endrin ketone	µg/kg	dry									
	Heptachlor	µg/kg	dry			0.3						
	Heptachlor epoxide	µg/kg	dry				5					
	Heptachlor and heptachlor epoxide (sum)	µg/kg	dry									
	Methoxychlor	µg/kg	dry									
	4,4'-DDD	µg/kg	dry				8					
	4,4'-DDE	µg/kg	dry				5					2.2
	4,4'-DDT	µg/kg	dry				8					1.6
	DDT and metabolites (sum)	µg/kg	dry				7					1.6
	Toxaphene	µg/kg	dry									1.6
	Aroclor 1016	µg/kg	dry				7					
	Aroclor 1221	µg/kg	dry									
	Aroclor 1232	µg/kg	dry									
	Aroclor 1242	µg/kg	dry									
	Aroclor 1248	µg/kg	dry				30					
	Aroclor 1254	µg/kg	dry				60					
	Aroclor 1260	µg/kg	dry				5					
	PCBs (sum of Aroclors)	µg/kg	dry			10	70		31.6	245	194	23
Dioxins/Furans												
	2,3,7,8-Tetrachlorodibenzofuran	pg/g	dry									
	Total tetrachlorodibenzofurans	pg/g	dry									
	2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	pg/g	dry									
	Total tetrachlorodibenzo-*p*-dioxins	pg/g	dry									
	1,2,3,7,8-Pentachlorodibenzofuran	pg/g	dry									
	2,3,4,7,8-Pentachlorodibenzofuran	pg/g	dry									
	Total pentachlorodibenzofurans	pg/g	dry									
	1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	pg/g	dry									
	Total pentachlorodibenzo-*p*-dioxins	pg/g	dry									
	1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g	dry									
	1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g	dry									
	2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g	dry									
	1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g	dry									
	Total hexachlorodibenzofurans	pg/g	dry									
	1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	pg/g	dry									
	1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	pg/g	dry									
	1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	pg/g	dry									
	Total hexachlorodibenzo-*p*-dioxins	pg/g	dry									
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g	dry									
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g	dry									
	Total heptachlorodibenzofurans	pg/g	dry									
	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	pg/g	dry									
	Total heptachlorodibenzo-*p*-dioxins	pg/g	dry									
	Octachlorodibenzofuran	pg/g	dry									
	Octachlorodibenzo-*p*-dioxin	pg/g	dry									

Table D-109. (cont.)

Chemical	Units	Measurement Basis	NYSDEC LEL (Benthos)	NYSDEC SEL (Benthos)	OME NOEL (Benthos)	OME LEL (Benthos)	OME SEL (Benthos)	USEPA TEC (Benthos)	USEPA PEC (Benthos)	USEPA NEC (Benthos)	NOAA ERL (Benthos)

Notes: NYSDEC Sediment Criteria (NYSDEC 1999)
NYSDEC – New York State Department of Environmental Conservation
LEL – lowest effect level
SEL – severe effect level

OME Sediment Benchmarks (Persaud et al., 1993)
OME – Ontario Ministry of the Environment
NOEL – no observable effect level
LEL – lowest effect level (Persaud et al., 1993, except for PAHs [Persaud et al., 1991])
SEL – severe effect level (Persaud et al., 1993, except for PAHs [Persaud et al., 1991])

USEPA Sediment Benchmarks (USEPA, 1996)
USEPA – US Environmental Protection Agency
TEC – threshold effect concentration (USEPA, 1996)
PEC – probable effect concentration (USEPA, 1996)
NEC – high no-effect concentration (USEPA. 1996)
Total PCB TEC/PEC/NEC applied to sum of Aroclors.

NOAA Sediment Benchmarks (Long et al., 1995)
NOAA – National Oceanic and Atmospheric Administration
ER-L – effects range-low (Long et al., 1995)
Arsenic-III ER-L applied to arsenic
Chromium-III ER-L applied to chromium
Inorganic mercury ER-L applied to total mercury
DDT ER-L applied to 4,4'-DDT and total DDT and metabolites
PCB ER-L applied to sum of Aroclors

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Table D-110. Organic Carbon Normalized Ecological Screening Values Used for Sediments in Onondaga Lake

Analyte	Units	NYSDEC Chronic (Benthos)	NYSDEC Acute (Benthos)	NYSDEC Bioaccumulation (Wildlife)	USEPA SQC* (Benthos)	USEPA SQB (Benthos)	OME LEL** (Benthos)	OME SEL (Benthos)	ORNL Secondary Chronic (Benthos)
Volatile Organic Compounds									
Aromatic Hydrocarbons									
Benzene	µg/gOC	28	103			5.7			16
Toluene	µg/gOC	49	235			67			5.0
Ethylbenzene	µg/gOC	24	212			360			8.9
Xylene isomers (total)	µg/gOC	92	833			2.5			16
Chlorinated Aromatic Hydrocarbons									
Chlorobenzene	µg/gOC	3.5	34.6			82			41
1,2-Dichlorobenzene	µg/gOC					34			33
1,3-Dichlorobenzene	µg/gOC					170			170
1,4-Dichlorobenzene	µg/gOC					35			34
Dichlorobenzenes (sum)	µg/gOC	12	120						
1,2,4-Trichlorobenzene	µg/gOC					920			960
Trichlorobenzenes (sum)	µg/gOC	91	910						
Halogenated Alkanes									
Methylene chloride	µg/gOC								37
1,1-Dichloroethane	µg/gOC								2.7
Chloroform	µg/gOC								2.2
1,2-Dichloroethane	µg/gOC								25
1,1,1-Trichloroethane	µg/gOC					17			3
Carbon tetrachloride	µg/gOC								4.7
1,1,2-Trichloroethane	µg/gOC								120
1,1,2,2-Tetrachloroethane	µg/gOC					94			140
Halogenated Alkenes									
1,1-Dichloroethene	µg/gOC								3.1
1,2-Dichloroethene isomers (total)	µg/gOC								40
cis -1,3-Dichloropropene	µg/gOC								0.0051
trans -1,3-Dichloropropene	µg/gOC								0.0051
Trichloroethene	µg/gOC					160			22
Tetrachloroethene	µg/gOC					53			41
Ketones									
Acetone	µg/gOC								0.87
2-Butanone	µg/gOC								27
2-Hexanone	µg/gOC								2.2
4-Methyl-2-pentanone	µg/gOC								3.3
Miscellaneous Volatile Compounds									
Carbon disulfide	µg/gOC								0.085
Semivolatile Organic Compounds									
Chlorinated Aromatic Hydrocarbons									
Pentachlorobenzene	µg/gOC					69			70.1
Hexachlorobenzene	µg/gOC	5,570	9,081	12			2.0	24	

Table D-110. (cont.)

Analyte	Units	NYSDEC Chronic (Benthos)	NYSDEC Acute (Benthos)	NYSDEC Bioaccumulation (Wildlife)	USEPA SQC* (Benthos)	USEPA SQB (Benthos)	OME LEL** (Benthos)	OME SEL (Benthos)	ORNL Secondary Chronic (Benthos)
Low Molecular Weight Polycyclic Aromatic Hydrocarbons									
Naphthalene	µg/gOC	30	258			48			24
Acenaphthene	µg/gOC	140			62				130
Fluorene	µg/gOC	8	73			54	19	160	54
Phenanthrene	µg/gOC	120			85		56	950	180
Anthracene	µg/gOC	107	986				22	370	22
2-Methylnaphthalene	µg/gOC	34	304						
High Molecular Weight Polycyclic Aromatic Hydrocarbons									
Fluoranthene	µg/gOC	1,020			290		75	1,020	620
Pyrene	µg/gOC	961	8775				49	850	
Benz[a]anthracene	µg/gOC	12	94				32	1,480	11
Chrysene	µg/gOC						34	460	
Benzo[k]fluoranthene	µg/gOC						24	1,340	
Benzo[a]pyrene	µg/gOC						37	1,440	14
Indeno[1,2,3-cd]pyrene	µg/gOC						20	320	
Dibenz[a,h]anthracene	µg/gOC						6.0	130	
Benzo[ghi]perylene	µg/gOC						17	320	
Phenols									
Phenol	µg/gOC	0.5							3.1
2-Methylphenol	µg/gOC								1.2
Substituted Phenols									
Pentachlorophenol	µg/gOC	40	100						
Chlorinated Aliphatic Hydrocarbons									
Hexachloroethane	µg/gOC					100			100
Hexachlorobutadiene	µg/gOC	5.5	55	4.0					
Hexachlorocyclopentadiene	µg/gOC	4.4	44						
Halogenated Ethers									
4-Bromophenyl-phenyl ether	µg/gOC					130			
Phthalates									
Diethyl phthalate	µg/gOC					63			60
Di-*n* -butyl phthalate	µg/gOC					1,100			1,100
Butylbenzyl phthalate	µg/gOC					1,100			1,100
Bis[2-ethylhexyl]phthalate	µg/gOC	199.5							89,000
Miscellaneous Oxygenated Compounds									
Dibenzofuran	µg/gOC					200			42
Pesticides/Polychlorinated Biphenyls									
α-Hexachlorocyclohexane	µg/gOC						0.6	10	12
β-Hexachlorocyclohexane	µg/gOC						0.5	21	12
δ-Hexachlorocyclohexane	µg/gOC								12
γ-Hexachlorocyclohexane	µg/gOC					0.37	0.3	1.0	0.37
Hexachlorocyclohexanes (sum)	µg/gOC	0.06	12.6	1.5					
Aldrin	µg/gOC						0.2	8.0	
α-Chlordane	µg/gOC	0.03	1.4	0.006			0.7	6.0	280
γ-Chlordane	µg/gOC	0.03	1.4	0.006			0.7	6.0	280

Table D-110. (cont.)

Analyte		Units	NYSDEC Chronic (Benthos)	NYSDEC Acute (Benthos)	NYSDEC Bioaccumulation (Wildlife)	USEPA SQC* (Benthos)	USEPA SQB (Benthos)	OME LEL** (Benthos)	OME SEL (Benthos)	ORNL Secondary Chronic (Benthos)
	Dieldrin	µg/gOC	9.0			5.2		0.2	91	11
	α-Endosulfan	µg/gOC	0.03	0.78			0.29			0.55
	β-Endosulfan	µg/gOC	0.03	0.78			1.4			0.55
	Endrin	µg/gOC	4.0		0.8	2.0		0.3	130	4.2
	Heptachlor	µg/gOC								6.8
	Heptachlor epoxide	µg/gOC						0.5	5.0	
	Heptachlor and Heptachlor epoxide (sum)	µg/gOC	0.1	13.1	0.03					
	Methoxychlor	µg/gOC	0.6				1.9			1.9
	4,4'-DDD	µg/gOC						0.8	6.0	11
	4,4'-DDE	µg/gOC						0.5	19.0	
	4,4'-DDT	µg/gOC	1.0	1,100				0.8	71	34
	DDT and metabolites (sum)	µg/gOC						0.7	12	
	Toxaphene	µg/gOC	0.01	3.2			2.8			
	Aroclor 1016	µg/gOC						0.7	53	
	Aroclor 1221	µg/gOC								12
	Aroclor 1232	µg/gOC								60
	Aroclor 1242	µg/gOC								17
	Aroclor 1248	µg/gOC						3.0	150	100
	Aroclor 1254	µg/gOC						6.0	34	81
	Aroclor 1260	µg/gOC						0.5	24	450,000
	PCBs (sum of Aroclors)	µg/gOC	19.3	2,760	1.4			7.0	530	
Dioxins/Furans										
	2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	µg/gOC			0.0002					

Notes: **NYSDEC Sediment Criteria (NYSDEC 1999)**
NYSDEC – New York State Department of Environmental Conservation
Xylene criteria applied to total xylene isomers.
Dichlorobenzenes criteria applied to sum of dichlorobenzene isomers.
Trichlorobenzenes criteria applied to sum of trichlorobenzene isomers.
Chlordane isomers not specified; criteria applied separately to each chlordane isomer.
Endosulfan isomers not specified; criteria applied separately to each endosulfan isomer.
Heptachlor and heptachlor epoxide criteria applied to sum of heptachlor and heptachlor epoxide.
Hexachlorocyclohexanes criteria applied to sum of hexachlorocyclohexane isomers.
PCB criteria applied to sum of Aroclors.

USEPA Sediment Benchmarks (USEPA, 1993, 1995)
USEPA – US Environmental Protection Agency
SQC – sediment quality criteria (USEPA, 1993)
SQB – sediment quality benchmarks (USEPA, 1995)
SQB values derived by equilibrium partitioning.
m-Xylene SQB applied to total xylene isomers.
Trichloroethylene and tetrachloroethylene SQB values applied to trichloroethene and tetrachloroethene.
* Assumed 1% organic carbon.

OME Sediment Benchmarks (Persaud et al., 1993)
OME – Ontario Ministry of the Environment
LEL – lowest effect level (Persaud et al., 1993, except for PAHs [Persaud et al., 1991])
SEL – severe effect level (Persaud et al., 1993, except for PAHs [Persaud et al., 1991])
** Assumed 1% organic carbon.
p,p'-DDD LEL/SEL and secondary chronic value applied to 4,4'-DDD.
p,p'-DDE LEL/SEL applied to 4,4'-DDE.
o,p'-DDT + p,p'-DDT LEL/SEL applied to 4,4'-DDT.
Total DDT LEL/SEL applied to sum of DDT and metabolites.
Chlordane isomers not specified for LEL/SEL or secondary chronic value; criteria applied separately to each chlordane isomer.
α-BHC LEL/SEL applied to α-hexachlorocyclohexane.
β-BHC LEL/SEL applied to β-hexachlorocyclohexane.
γ-BHC (lindane) LEL/SEL applied to γ-hexachlorocyclohexane.
Total PCB LEL/SEL applied to sum of Aroclors.

ORNL Secondary Chronic Benchmarks (Jones et al., 1997)
ORNL – Oak Ridge National Laboratory
NAWQC – national ambient water quality criterion
Secondary chronic benchmarks derived by equilibrium partitioning of aqueous benchmarks.
Xylene secondary chronic value applied to total xylene isomers.
1,2-Dichloroethene secondary chronic value applied to 1,2-dichloroethene isomers (total).
1,3-Dichloropropene isomers not specified for secondary chronic value; criterion applied separately to each 1,3-dichloropropene isomer.
Acenaphthene NAWQC chronic value used as secondary chronic benchmark.
Phenanthrene NAWQC chronic value used as secondary chronic benchmark.
Fluoranthene NAWQC chronic value used as secondary chronic benchmark.
Phenol NAWQC chronic value used as secondary chronic benchmark.
Chlordane NAWQC chronic value used as secondary chronic benchmark.
DDT secondary chronic value applied to 4,4'-DDT.
Dieldrin NAWQC chronic value used as secondary chronic benchmark.
Endosulfan, all isomers secondary chronic value applied separately to each endosulfan isomer.
Endrin NAWQC chronic value used as secondary chronic benchmark.
BHC (other) secondary chronic value applied separately to each hexachlorocyclohexane isomer (except lindane).
BHC (lindane) NAWQC chronic value used as secondary chronic benchmark for γ-hexachlorocyclohexane.

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Table D-111. Dry Weight Basis Ecological Screening Values Used for Soils Collected near Onondaga Lake

Chemical	Units	Phytotoxicity Efroymson et al., 1997a	Microbial Toxicity Efroymson et al., 1997b	Earthworm Toxicity Efroymson et al., 1997b	Screening Value, USEPA Region 4, 1999
Total Metals/Cyanide					
Aluminum	mg/kg	50	600		50 [a]
Antimony	mg/kg	5			3.5
Arsenic	mg/kg	10	100	60	10[a]
Barium	mg/kg	500	3,000		165
Beryllium	mg/kg	10			1.1
Boron	mg/kg	0.5	20		0.5 [a]
Cadmium	mg/kg	4	20	20	1.6
Calcium	mg/kg				
Chromium	mg/kg	1	10	0.4	0.4 [a]
Chromium VI	mg/kg				
Cobalt	mg/kg	20	1,000		20 [a]
Copper	mg/kg	100	100	50	40
Iron	mg/kg		200		200 [a]
Lead	mg/kg	50	900	500	50 [a]
Magnesium	mg/kg				
Manganese	mg/kg	500	100		100
Mercury	mg/kg	0.3 (inorganic)	30	0.1 (combined inorganic and organic)	0.1 (inorganic) [a]
Methylmercury	mg/kg				0.67
Molybdenum	mg/kg	2	200		2[a]
Nickel	mg/kg	30	90	200	30[a]
Potassium	mg/kg				
Selenium	mg/kg	1	100	70	0.81
Silver	mg/kg	2	50		2[a]
Sodium	mg/kg				
Thallium	mg/kg	1			1[a]
Vanadium	mg/kg	2	20		2[a]
Zinc	mg/kg	50	100	200	50[a]
Cyanide	mg/kg				0.9 (free total)
Total Cyanide	mg/kg				5.0 (complex total)
Volatile Organic Compounds					
1,1,1-Trichloroethane	mg/kg				
1,1,2,2-Tetrachloroethane	mg/kg				
1,1-Dichloroethane	mg/kg				
1,2-Dichloroethane	mg/kg				0.4
1,2-Dichloroethene (Total)	mg/kg				
1,2-Dichloropropane	mg/kg			700	700 [a]
2-Butanone (MEK)	mg/kg				
4-Methyl-2-pentanone	mg/kg				
Acetone	mg/kg				
Benzene	mg/kg				0.05
Benzoic acid	mg/kg				
BTX	mg/kg				
Carbon disulfide	mg/kg				
Chlorobenzene	mg/kg			40	0.05 (each); 0.05 (total)
Chloroethane	mg/kg				
Chloroform	mg/kg				
cis-1,2-Dichloroethene	mg/kg				
Ethylbenzene	mg/kg				0.05
Methylene chloride (Dichloromethane)	mg/kg				2.0
Pentachlorobenzene	mg/kg			20	0.0025
Tetrachloroethene	mg/kg				0.01
Toluene	mg/kg	200			0.05
Trichloroethene	mg/kg				
Vinyl chloride	mg/kg				0.01

Table D-111. (cont.)

Chemical	Units	Phytotoxicity Efroymson et al., 1997a	Microbial Toxicity Efroymson et al., 1997b	Earthworm Toxicity Efroymson et al., 1997b	Screening Value, USEPA Region 4, 1999
Xylene (Total)	mg/kg				0.05
Xylene (m,p)	mg/kg				
Xylene (o)	mg/kg				
Semivolatile Organic Compounds					
Dichlorobenzenes (Total)	mg/kg				0.01
1,2-Dichlorobenzene	mg/kg				
1,3-Dichlorobenzene	mg/kg				
1,4-Dichlorobenzene	mg/kg			20	
1,2,3,4-Tetrachlorobenzene	mg/kg			10	0.01 (total)
Trichlorobenzenes (Total)	mg/kg				0.01
1,2,3-Trichlorobenzene	mg/kg			20	
1,2,4-Trichlorobenzene	mg/kg			20	
1,3,5-Trichlorobenzene	mg/kg				
1,2,4-Trimethylbenzene	mg/kg				
Nitrobenzene	mg/kg			40	40 [a]
N-nitrosodiphenylamine	mg/kg			20	20 [a]
2-Methylnaphthalene	mg/kg				
2-Methylphenol	mg/kg				
4-Methylphenol	mg/kg				
2,4-Dichlorophenol	mg/kg				
2,4,5-Trichlorophenol	mg/kg	4			4
2,4,6-Trichlorophenol	mg/kg	10			10
4-Nitrophenol	mg/kg	7			7
2,4-Dinitrophenol	mg/kg	20			20
4-Chloroaniline	mg/kg				
Acenaphthene	mg/kg	20			20 [a]
Acenaphthylene	mg/kg	20			
Aniline	mg/kg				
Anthracene	mg/kg				0.1
Benz(a)anthracene	mg/kg				
Benzo(a)pyrene	mg/kg				0.1
Benzo(b)fluoranthene	mg/kg				
Benzo(g,h,i)perylene	mg/kg				
Benzo(k)fluoranthene	mg/kg				
Benzyl alcohol	mg/kg				
Bis(2-ethylhexyl)phthalate	mg/kg				
sec-Butylbenzene	mg/kg				
Carbazole	mg/kg				
Chrysene	mg/kg				
Dibenz(a,h)anthracene	mg/kg				
Dibenzofuran	mg/kg				
Di-*n*-butyl phthalate	mg/kg	200			200[a]
Diethylphthalate	mg/kg	100			100[a]
Dimethylphthalate	mg/kg			200	200 [a]
Fluoranthene	mg/kg				0.1
Fluorene	mg/kg			30 (fluorine)	30 [a]
Hexachlorobenzene	mg/kg		1,000		0.0025
Hexachlorobutadiene	mg/kg				
Hexachloroethane	mg/kg				
Hexachlorocyclopentadiene	mg/kg	10			10
Indeno(1,2,3-cd)pyrene	mg/kg				
Isophorone	mg/kg				
Naphthalene	mg/kg				0.1
PAH compounds	mg/kg				1.0 (total)
Pentachlorophenol	mg/kg	3	400	6	0.002
Phenanthrene	mg/kg				0.1
Phenol	mg/kg	70	100	30	0.05
Pyrene	mg/kg				0.1
Pesticides/PCBs					
α-Hexachlorocyclohexane	mg/kg				0.0025
β-Hexachlorocyclohexane	mg/kg				0.001
Chlordane	mg/kg				
Aldrin	mg/kg				0.0025
Dieldrin	mg/kg				0.0005

Table D-111. (cont.)

Chemical	Units	Phytotoxicity Efroymson et al., 1997a	Microbial Toxicity Efroymson et al., 1997b	Earthworm Toxicity Efroymson et al., 1997b	Screening Value, USEPA Region 4, 1999
Dieldrin and aldrin	mg/kg				
Endosulfan	mg/kg				
Endrin	mg/kg				0.001
Heptachlor	mg/kg				
Heptachlor epoxide	mg/kg				
Methoxychlor	mg/kg				
4,4'-DDD	mg/kg				
4,4'-DDE	mg/kg				
4,4'-DDT	mg/kg				
Total DDT	mg/kg				0.0025 (Total, DDD, DDT, DDE)
Aroclor 1016	mg/kg				
Aroclor 1221	mg/kg				
Aroclor 1232	mg/kg				
Aroclor 1242	mg/kg				
Aroclor 1248	mg/kg				
Aroclor 1254	mg/kg				
Aroclors 1254 and 1260	mg/kg				
Aroclor 1260	mg/kg				
Total PCBs	mg/kg	40			0.02
Dioxins/Furans					
Total PCDD/Fs	mg/kg				
Ecological Stressors					
Non-native species	mg/kg				
Wave disturbance	mg/kg				
Transparency	mg/kg				
Salinity	mg/kg				
Oncolites	mg/kg				
Conventional Analytes					
Ammonia	mg/kg				
Chloride	mg/kg				
Nitrite	mg/kg				
DO (mg/L)[3]	mg/kg				
pH (SU)	mg/kg				
Phosphorus	mg/kg				
Carbon tetrachloride	mg/kg		1,000		1,000
Sulfate	mg/kg				
Sulfides	mg/kg				

Notes: [a] from ORNL, Efroymson et al., 1997 a,b

[TG] = tentative guideline

[UN] = unreliable sediment effect concentrations

References

Efroymson, R. A., M.E Will, G.W. Suter II, and A.C. Wooten. 1997a. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision. Prepared for the US Department of Energy, Office of Environmental Management. Oak Ridge National Laboratory, Oak Ridge, TN.

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Table D-112. Ecological Screening Values Used for Fish Tissue Collected from Onondaga Lake

Chemical	Units	IJC Criteria (Birds)	NYSDEC Criteria (Piscivores)	ORNL LOAEL (Birds)	ORNL LOAEL (Mammals)	ORNL NOAEL (Birds)	ORNL NOAEL (Mammals)
Total Metals and Cyanide							
Aluminum	mg/kg			87.8	58.6	217	5.86
Antimony	mg/kg				3.8		0.38
Arsenic	mg/kg			14.6	3.83	4.9	0.38
Barium	mg/kg			82.3	111.2	41	30.2
Beryllium	mg/kg						3.71
Cadmium	mg/kg			39.5	54.2	2.86	5.41
Calcium	mg/kg						
Chromium	mg/kg			9.87	73.8	1.97	18.4
Cobalt	mg/kg						
Copper	mg/kg			122	112	92.7	85.4
Iron	mg/kg						
Lead	mg/kg			22.3	449	2.23	44.9
Magnesium	mg/kg						
Manganese	mg/kg				1,594	1,967	494
Mercury	µg/kg	500		126	182	13	109
Nickel	mg/kg			211	449	153	225
Potassium	mg/kg						
Selenium	mg/kg			1.58	1.85	0.79	1.12
Silver	mg/kg						
Sodium	mg/kg						
Thallium	mg/kg				0.42		0.042
Vanadium	mg/kg				10.9	22.5	1.1
Zinc	mg/kg			259	1,797	28.6	898
Cyanide	mg/kg						363
Volatile Organic Compounds							
Aromatic Hydrocarbons							
Benzene	µg/kg				800,800		80,100
Toluene	µg/kg				789,800		79,000
Xylene Isomers	µg/kg				7,898		6,379
Chlorinated Aromatic Hydrocarbons							
1,2-Dichlorobenzene	µg/kg						
1,3-Dichlorobenzene	µg/kg						
1,4-Dichlorobenzene	µg/kg						
1,2,4-Trichlorobenzene	µg/kg		1,300				
Halogenated Alkanes							
Methylene Chloride	µg/kg				280,700		32,800
Chloroform	µg/kg				230,000		84,000
1,2-Dichloroethane	µg/kg			67,900		33,900	157,900
1,1,1-Trichloroethane	µg/kg						3,157,000
Carbon tetrachloride	µg/kg						89,800
Halogenated Alkenes							
Vinyl chloride	µg/kg				9,544		954
Trichloroethene	µg/kg						
Ketones							
Acetone	mg/kg				281		56
2-Butanone	mg/kg				25,663		9,943
4-Methyl-2-pentanone	mg/kg						140

Table D-112. (cont.)

Chemical	Units	IJC Criteria (Birds)	NYSDEC Criteria (Piscivores)	ORNL LOAEL (Birds)	ORNL LOAEL (Mammals)	ORNL NOAEL (Birds)	ORNL NOAEL (Mammals)
Semivolatile Organic Compounds							
Chlorinated Aromatic Hydrocarbons							
Hexachlorobenzene	µg/kg		330				
Hexachlorobenzene (GC)	µg/kg		330				
2-Chloronaphthalene	µg/kg						
Low Molecular Weight Polycyclic Aromatic Hydrocarbons							
Naphthalene	µg/kg						
Acenaphthylene	µg/kg						
Acenaphthene	µg/kg						
Fluorene	µg/kg						
Phenanthrene	µg/kg						
Anthracene	µg/kg						
2-Methylnaphthalene	µg/kg						
High Molecular Weight Polycyclic Aromatic Hydrocarbons							
Fluoranthene	µg/kg						
Pyrene	µg/kg						
Benz[a]anthracene	µg/kg						
Chrysene	µg/kg						
Benzo[b]fluoranthene	µg/kg						
Benzo[k]fluoranthene	µg/kg						
Benzo[a]pyrene	µg/kg				30,380		3,040
Indeno[1,2,3-cd]pyrene	µg/kg						
Dibenz[a,h]anthracene	µg/kg						
Benzo[ghi]perylene	µg/kg						
Phenols							
Phenol	µg/kg						
2-Methylphenol	µg/kg						1,600,000
4-Methylphenol	µg/kg						
2,4-Dimethylphenol	µg/kg						
Substituted Phenols							
2-Chlorophenol	µg/kg						
2,4-Dichlorophenol	µg/kg						
4-Chloro-3-methylphenol	µg/kg						
2,4,6-Trichlorophenol	µg/kg						
2,4,5-Trichlorophenol	µg/kg						
Tetrachlorophenol	µg/kg		100				
Pentachlorophenol	µg/kg		2,000		13,474		1,347
2-Nitrophenol	µg/kg						
4-Nitrophenol	µg/kg						
2,4-Dinitrophenol	µg/kg						
2-Methyl-4,6-dinitrophenol	µg/kg						
Chlorinated Aliphatic Hydrocarbons							
Hexachloroethane	µg/kg		14,100				
Hexachlorobutadiene	µg/kg		1,300				
Hexachlorocyclopentadiene	µg/kg						
Halogenated Ethers							
bis[2-chloroethyl]ether	µg/kg						
4-Chlorophenyl-phenyl ether	µg/kg						
4-Bromophenyl-phenyl ether	µg/kg						
bis[2-chloroethoxy]methane	µg/kg						
2,2'-Oxybis[1-chloropropane]	µg/kg						
Phthalates							
Dimethyl phthalate	µg/kg						
Diethyl phthalate	µg/kg						13,922,000

Table D-112. (cont.)

Chemical	Units	IJC Criteria (Birds)	NYSDEC Criteria (Piscivores)	ORNL LOAEL (Birds)	ORNL LOAEL (Mammals)	ORNL NOAEL (Birds)	ORNL NOAEL (Mammals)
Di-*n* -butyl phthalate	µg/kg			2,170	5,568,000	220	1,671,000
Butylbenzyl phthalate	µg/kg						
bis[2-Ethylhexyl]phthalate	µg/kg				556,000	2,170	56,000
Di-*n* -octyl phthalate	µg/kg						
Miscellaneous Oxygenated Compounds							
Isophorone	µg/kg						
Dibenzofuran	µg/kg						
Carbazole	µg/kg						
Organonitrogen Compounds							
Nitrobenzene	µg/kg						
N -nitroso-di-*n* -propylamine	µg/kg						
2-Nitroaniline	µg/kg						
3-Nitroaniline	µg/kg						
4-Nitroaniline	µg/kg						
2,6-Dinitrotoluene	µg/kg						
2,4-Dinitrotoluene	µg/kg						
N -nitrosodiphenylamine	µg/kg						
4-Chloroaniline	µg/kg						
3,3'-Dichlorobenzidine	µg/kg						
Pesticides/Polychlorinated Biphenyls							
α-Hexachlorocyclohexane	µg/kg						
β-Hexachlorocyclohexane	µg/kg				11,230		2,250
δ-Hexachlorocyclohexane	µg/kg						
γ-Hexachlorocyclohexane	µg/kg			39,470		3,950	44,910
Hexachlorocyclohexane isomers (sum)	µg/kg		100	4,440	1,020	1,110	100
Aldrin	µg/kg				5,610		1,120
α-Chlordane [a]	µg/kg			21,100	27,900	4,200	14,000
γ-Chlordane	µg/kg			21,100	27,900	4,200	14,000
Chlordane isomers (sum)	µg/kg		500				
Dieldrin	µg/kg				1,123	152	112
Aldrin and Dieldrin (sum)	µg/kg		120				
α-Endosulfan[b]	µg/kg					19,700	840
β-Endosulfan	µg/kg					19,700	840
Endosulfan sulfate	µg/kg					19,700	840
Endrin	µg/kg		25	197	2,795	20	279
Endrin aldehyde	µg/kg						
Endrin ketone	µg/kg						
Heptachlor	µg/kg				7,299		730
Heptachlor epoxide	µg/kg						
Heptachlor and heptachlor epoxide (sum)	µg/kg		200				
Miscellaneous Oxygenated Compounds							
Methoxychlor	µg/kg				44,900		22,500
Mirex	µg/kg		330				
4,4'-DDD	µg/kg						
4,4'-DDE	µg/kg						
4,4'-DDT	µg/kg						
DDT and metabolites (sum)	µg/kg	1,000	200	55	22,460	6	4,490
Toxaphene	µg/kg						44,900
Aroclor 1016	µg/kg				25,040		10,000
Aroclor 1221	µg/kg						
Aroclor 1232	µg/kg						
Aroclor 1242	µg/kg				5,036	809	504
Aroclor 1248	µg/kg				1,091		109
Aroclor 1254	µg/kg			3,550	5,040	355	1,022
Aroclor 1260	µg/kg						
Aroclor 1268	µg/kg						
PCBs (sum of Aroclors)	µg/kg	100	110				

Table D-112. (cont.)

Chemical	Units	IJC Criteria (Birds)	NYSDEC Criteria (Piscivores)	ORNL LOAEL (Birds)	ORNL LOAEL (Mammals)	ORNL NOAEL (Birds)	ORNL NOAEL (Mammals)
Dioxins/Furans							
2,3,7,8-Tetrachlorodibenzofuran	pg/g			19.7		2	
2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	pg/g			276.3	56.1	27.6	5.6
1,2,3,7,8-Pentachlorodibenzofuran	pg/g				8,980		900
2,3,4,7,8-Pentachlorodibenzofuran	pg/g				900		90
1,2,3,7,8-Pentachlorodibenzo-*p* -dioxin	pg/g						
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/g						
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/g				8,980		900
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/g						
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/g						
1,2,3,4,7,8-Hexachlorodibenzo-*p* -dioxin	pg/g						
1,2,3,6,7,8-Hexachlorodibenzo-*p* -dioxin	pg/g						
1,2,3,7,8,9-Hexachlorodibenzo-*p* -dioxin	pg/g						
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/g						
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/g						
1,2,3,4,6,7,8-Heptachlorodibenzo-*p* -dioxin	pg/g						
Octachlorodibenzofuran	pg/g						
Octachlorodibenzo-*p* -dioxin	pg/g						

Notes: Criteria for mirex was applied to photomirex.

[a]Chlordane isomers not specified; criteria applied separately to each chlordane isomer.

[b] Endosulfan isomers not specified; criteria applied separately to each endosulfan isomer.

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Table D-15. Ratios of Maximum Concentrations of Detected Chemicals in Metro Discharge and Onondaga Lake Tributary Water at High-Flow in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Metro Outfall						
Conventional Analytes						
Total chloride	mg/L	unfiltered	752	C	230	3.3
Metals						
Chromium	µg/L	unfiltered	4.3	B, C	94.8	4.5E-02
Copper	µg/L	unfiltered	13	B, C	11.6	1.1
Lead	µg/L	unfiltered	2.2	C	3.5	0.6
Methylmercury	ng/L	unfiltered	1.5	D	3	0.5
Nickel	µg/L	unfiltered	15	B, C	67	0.2
Total mercury	ng/L	unfiltered	104	E	2.6	40
Zinc	µg/L	unfiltered	71	B	107	0.7
Onondaga Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	989	C	230	4.3
Metals						
Copper	µg/L	unfiltered	10	B, C	11.6	0.8
Lead	µg/L	unfiltered	16	C	3.5	4.7
Methylmercury	ng/L	unfiltered	0.7	D	3	0.2
Total mercury	ng/L	unfiltered	12	E	2.6	4.5
Zinc	µg/L	unfiltered	38	B	107	0.4
Harbor Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	306	C	230	1.3
Metals						
Chromium	µg/L	unfiltered	9.1	B, C	94.8	0.1
Copper	µg/L	unfiltered	48	B, C	11.6	4.1
Lead	µg/L	unfiltered	63	C	3.5	18
Methylmercury	ng/L	unfiltered	9.3	D	3	3.1
Nickel	µg/L	unfiltered	17	B, C	67	0.2
Total mercury	ng/L	unfiltered	147	E	2.6	57
Zinc	µg/L	unfiltered	188	B	107	1.8
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Toluene	µg/L	unfiltered	2.1	D	130	1.6E-02
Xylene isomers (total)	µg/L	unfiltered	1.7	D	1.8	0.9
Chlorinated Aromatic Hydrocarbons						
1,2-Dichlorobenzene	µg/L	unfiltered	1.0	D	14	7.1E-02
1,4-Dichlorobenzene	µg/L	unfiltered	7.2	D	15	0.5
Dichlorobenzenes (Sum)	µg/L	unfiltered	7.2	B	5	1.4
Ley Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	394	C	230	1.7
Metals						
Chromium	µg/L	unfiltered	19	B, C	94.8	0.2
Copper	µg/L	unfiltered	58	B, C	11.6	5.0
Lead	µg/L	unfiltered	95	C	3.5	27
Methylmercury	ng/L	unfiltered	1.6	D	3	0.5
Nickel	µg/L	unfiltered	11	B, C	67	0.2
Total mercury	ng/L	unfiltered	42	E	2.6	16
Zinc	µg/L	unfiltered	182	B	107	1.7

Table D-15. (cont.)

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
East Flume						
Conventional Analytes						
Total chloride	mg/L	unfiltered	729	C	230	3.2
Metals						
Copper	µg/L	unfiltered	7.5	B, C	11.6	0.6
Lead	µg/L	unfiltered	2.0	C	3.5	0.6
Methylmercury	ng/L	unfiltered	1.7	D	3	0.6
Nickel	µg/L	unfiltered	6.5	B, C	67	0.1
Total mercury	ng/L	unfiltered	198	E	2.6	76
Zinc	µg/L	unfiltered	130	B	107	1.2
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Xylene isomers (total)	µg/L	unfiltered	1.8	D	1.8	1.0
Chlorinated Aromatic Hydrocarbons						
1,2-Dichlorobenzene	µg/L	unfiltered	5.2	D	14	0.4
1,4-Dichlorobenzene	µg/L	unfiltered	20	D	15	1.4
Dichlorobenzenes (Sum)	µg/L	unfiltered	22	B	5	4.5
1,2,4-Trichlorobenzene	µg/L	unfiltered	2.4	D	110	2.2E-02
Trichlorobenzenes (Sum)	µg/L	unfiltered	2.4	B	5	0.5
Tributary 5A						
Conventional Analytes						
Total chloride	mg/L	unfiltered	376	C	230	1.6
Metals						
Cadmium	µg/L	unfiltered	3.2	F	1.3	2.5
Chromium	µg/L	unfiltered	560	B, C	94.8	5.9
Copper	µg/L	unfiltered	125	B, C	11.6	11
Lead	µg/L	unfiltered	55	C	3.5	16
Methylmercury	ng/L	unfiltered	4.4	D	3	1.5
Nickel	µg/L	unfiltered	327	B, C	67	4.9
Total mercury	ng/L	unfiltered	307	E	2.6	118
Zinc	µg/L	unfiltered	259	B	107	2.4
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	60	D	46	1.3
Toluene	µg/L	unfiltered	5.1	D	130	3.9E-02
Xylene isomers (total)	µg/L	unfiltered	2.4	D	1.8	1.3
Bloody Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	197	C	230	0.9
Metals						
Cadmium	µg/L	unfiltered	17	F	1.3	13
Chromium	µg/L	unfiltered	12	B, C	94.8	0.1
Copper	µg/L	unfiltered	42	B, C	11.6	3.6
Lead	µg/L	unfiltered	44	C	3.5	13
Methylmercury	ng/L	unfiltered	0.1	D	3	4.8E-02
Nickel	µg/L	unfiltered	9.3	B, C	67	0.1
Total mercury	ng/L	unfiltered	47	E	2.6	18
Zinc	µg/L	unfiltered	201	B	107	1.9
Ninemile Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	604	C	230	2.6
Metals						
Cadmium	µg/L	unfiltered	2.1	F	1.3	1.6
Chromium	µg/L	unfiltered	6.4	B, C	94.8	6.8E-02
Copper	µg/L	unfiltered	16	B, C	11.6	1.4
Lead	µg/L	unfiltered	20	C	3.5	5.6

Table D-15. (cont.)

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Methylmercury	ng/L	unfiltered	1.4	D	3	0.5
Nickel	µg/L	unfiltered	9.1	B, C	67	0.1
Total mercury	ng/L	unfiltered	73	E	2.6	28
Zinc	µg/L	unfiltered	72	B	107	0.7
Sawmill Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	343	C	230	1.5
Metals						
Copper	µg/L	unfiltered	4.7	B, C	11.6	0.4
Lead	µg/L	unfiltered	3.5	C	3.5	1.0
Methylmercury	ng/L	unfiltered	0.1	D	3	4.3E-02
Total mercury	ng/L	unfiltered	10	E	2.6	3.7
Zinc	µg/L	unfiltered	27	B	107	0.2
Geddes Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	844	C	230	3.7
Metals						
Chromium	µg/L	unfiltered	8.7	B, C	94.8	9.2E-02
Copper	µg/L	unfiltered	20	B, C	11.6	1.7
Lead	µg/L	unfiltered	22	C	3.5	6.3
Methylmercury	ng/L	unfiltered	1.8	D	3	0.6
Nickel	µg/L	unfiltered	13	B, C	67	0.2
Total mercury	ng/L	unfiltered	377	E	2.6	145
Zinc	µg/L	unfiltered	105	B	107	1.0
Lake Outlet						
Conventional Analytes						
Total chloride	mg/L	unfiltered	501	C	230	2.2
Metals						
Copper	µg/L	unfiltered	4.9	B, C	11.6	0.4
Lead	µg/L	unfiltered	5.8	C	3.5	1.7
Methylmercury	ng/L	unfiltered	2.0	D	3	0.7
Nickel	µg/L	unfiltered	7.7	B, C	67	0.1
Total mercury	ng/L	unfiltered	7.9	E	2.6	3.0
Zinc	µg/L	unfiltered	47	B	107	0.4

Notes:
A – USEPA Chronic (Aquatic Life)
B – NYSDEC Chronic (Wildlife)
C – USEPA CCC (Aquatic Life)
D – USEPA Tier II (Aquatic Life)
E – NYSDEC (Wildlife)
F – USEPA AWQC/FCV (Aquatic Life)

[a] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used t calculate the criterion

[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined

Table D-16. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Metro Discharge and Onondaga Lake Tributary Water at High-Flow in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Metro Outfall						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Onondaga Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Harbor Brook						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03

Table D-16. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Ley Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
East Flume						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Tributary 5A						
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Ethylbenzene	µg/L	unfiltered	1.0	D	290	3.4E-03

Table D-16. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	1.0	B	5	0.2
1,2-Dichlorobenzene	µg/L	unfiltered	1.0	D	14	7.1E-02
1,3-Dichlorobenzene	µg/L	unfiltered	1.0	D	71	1.4E-02
1,4-Dichlorobenzene	µg/L	unfiltered	1.0	D	15	6.7E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	1.0	B	5	0.2
1,2,4-Trichlorobenzene	µg/L	unfiltered	1.0	D	110	9.1E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	1.0	B	5	0.2
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Bloody Brook						
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Ninemile Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.6	D	15	4.0E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02

Table D-16. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Sawmill Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Nickel	µg/L	unfiltered	2.0	B, C	67	3.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Geddes Brook						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Lake Outlet						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3

Table D-16. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02

Notes: A – USEPA Chronic (Aquatic Life)
B – NYSDEC Chronic (Wildlife)
C – USEPA CCC (Aquatic Life)
D – USEPA Tier II (Aquatic Life)
E – NYSDEC (Wildlife)
F – USEPA AWQC/FCV (Aquatic Life)
MDL – maximum detection limit
[a] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined

Table D-17. Ratios of Maximum Concentrations of Detected Chemicals in Surface Sediments (0–2 cm) from Onondaga Lake and Otisco Lake in 1992 to Minimum Dry-Weight Basis Screening Values

Location/Analyte	Units	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Onondaga Lake					
Metals					
Aluminum	mg/kg	5,610	F	58,030	0.1
Antimony	mg/kg	6.4	A	2.0	3.2
Arsenic	mg/kg	11	A, C	6.0	1.9
Cadmium	mg/kg	14	G	0.59	24
Chromium	mg/kg	1,990	A, C	26	77
Copper	mg/kg	173	A, C	16	11
Iron	mg/kg	34,200	A, C	20,000	1.7
Lead	mg/kg	251	A, C	31	8.1
Manganese	mg/kg	508	A, C	460	1.1
Nickel	mg/kg	650	A, C	16	41
Silver	mg/kg	5.1	A	1.0	5.1
Mercury	mg/kg	68.9	A, H	0.15	459
Zinc	mg/kg	276	A, C	120	2.3
Semivolatile Organic Compounds					
Low Molecular Weight Polycyclic Aromatic Hydrocarbons					
Naphthalene	µg/kg	30,000	G	32.8	915
Acenaphthene	µg/kg	15,000	H	16	938
Fluorene	µg/kg	7,200	G	34.6	208
Phenanthrene	µg/kg	22,000	H	240	92
Anthracene	µg/kg	8,900	G	31.6	282
High Molecular Weight Polycyclic Aromatic Hydrocarbons					
Fluoranthene	µg/kg	230,000	G	64.2	3,583
Pyrene	µg/kg	17,000	C	490	35
Benz[a]anthracene	µg/kg	7,700	G	260	30
Chrysene	µg/kg	7,500	C	340	22
Benzo[a]pyrene	µg/kg	7,800	G	350	22
Indeno[1,2,3-cd]pyrene	µg/kg	1,933	G	78	25
Dibenz[a,h]anthracene	µg/kg	890	F	28.2	32
Benzo[ghi]perylene	µg/kg	9,300	G	290	32
PAHs (total)	µg/kg	330,590	H	4,000	83
Polychlorinated Biphenyls					
Polychlorinated biphenyls	µg/kg	2,100	B	10	210
Otisco Lake					
Total Metals					
Aluminum	mg/kg	7,750	F	58,030	0.1
Arsenic	mg/kg	5.7	A, C	6.0	1.0
Cadmium	mg/kg	0.7	G	0.6	1.3
Chromium	mg/kg	12.7	A, C	26	0.5
Copper	mg/kg	158	A, C	16	9.9
Iron	mg/kg	18,700	A, C	20,000	0.9
Lead	mg/kg	32	A, C	31	1.0
Manganese	mg/kg	1,040	A, C	460	2.3
Mercury	mg/kg	0.2	A, H	0.15	1.5
Nickel	mg/kg	22	A, C	16	1.4
Zinc	mg/kg	73	A, C	120	0.6
Semivolatile Organic Compounds					
Low Molecular Weight Polycyclic Aromatic Hydrocarbons					
Phenanthrene	µg/kg	49	H	240	0.2
High Molecular Weight Polycyclic Aromatic Hydrocarbons					
Fluoranthene	µg/kg	160	G	64.2	2.5
Pyrene	µg/kg	160	C	490	0.3
Benz[a]anthracene	µg/kg	100	G	260	0.4

Table D-17. (cont.)

Location/Analyte	Units	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Chrysene	µg/kg	130	C	340	0.4
Benzo[a]pyrene	µg/kg	110	G	350	0.3
Indeno[1,2,3-cd]pyrene	µg/kg	62	G	78	0.8
Benzo[ghi]perylene	µg/kg	64	G	290	0.2
Pesticides					
4,4'-DDT	µg/kg	13	H	1.6	8.1

Notes: A – NYSDEC LEL (Benthos)
B – OME NOEL (Benthos)
C – OME LEL (Benthos)
E – USEPA NEC (Benthos)
F – USEPA PEC (Benthos)
G – USEPA TEC (Benthos)
H – NOAA ERL (Benthos)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-18. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Surface Sediments (0–2 cm) from Onondaga Lake and Otisco Lake in 1992 to Minimum Dry-Weight Basis Screening Values

Location/Analyte	Units	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Onondaga Lake					
Pesticides					
4,4'-DDT	µg/kg	15	H	1.6	9.1
Otisco Lake					
Total Metals					
Antimony	mg/kg	2.8	A	2.0	1.4
Silver	mg/kg	0.5	A	1.0	0.5
Semivolatile Organic Compounds					
Low Molecular Weight Polycyclic Aromatic Hydrocarbons					
Naphthalene	µg/kg	75	G	32.8	2.3
Acenaphthene	µg/kg	75	H	16	4.7
Fluorene	µg/kg	75	G	34.6	2.2
Anthracene	µg/kg	75	G	31.6	2.4
High Molecular Weight Polycyclic Aromatic Hydrocarbons					
Dibenz[a,h]anthracene	µg/kg	75	F	28.2	2.7
Pesticides/PCBs					
Polychlorinated biphenyls	µg/kg	55	B	10	5.5

Notes: A – NYSDEC LEL (Benthos)
B – OME NOEL (Benthos)
F – USEPA PEC (Benthos)
G – USEPA TEC (Benthos)
H – NOAA ERL (Benthos)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-19. Ratios of Maximum Concentrations of Chemicals Detected in Surface Sediments (0–2 cm) from Onondaga Lake and Otisco Lake in 1992 to Minimum Organic Carbon Normalized Screening Values

Location/Analyte	Units	Measurement Basis	Maximum Detected Value[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Onondaga Lake						
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	mg/kg	TOC	880	F	5.7	154
Toluene	mg/kg	TOC	260	C	5.0	52
Ethylbenzene	mg/kg	TOC	100	C	8.9	11
Xylene isomers (total)	mg/kg	TOC	1,000	F	2.5	400
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	mg/kg	TOC	2,300	B	3.5	657
1,2-Dichlorobenzene	mg/kg	TOC	490	C	33	15
1,3-Dichlorobenzene	mg/kg	TOC	360	C, F	170	2.1
1,4-Dichlorobenzene	mg/kg	TOC	1,000	C	34	29
Dichlorobenzenes (sum)	mg/kg	TOC	1,270	B	12	106
1,2,4-Trichlorobenzene	mg/kg	TOC	20	F	920	0.02
Trichlorobenzenes (sum)	mg/kg	TOC	261	B	91	2.9
Halogenated Alkanes						
Methylene chloride	mg/kg	TOC	2.5	C	37	0.1
Ketones						
Acetone	mg/kg	TOC	38	C	0.87	44
2-Butanone	mg/kg	TOC	220	C	27	8.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Pentachlorobenzene	mg/kg	TOC	30	C	69	0.4
Hexachlorobenzene	mg/kg	TOC	110	D	2.0	55
Low Molecular Weight Polycyclic Aromatic Hydrocarbons						
Naphthalene	mg/kg	TOC	1,900	C	24	79
Acenaphthene	mg/kg	TOC	3,200	G	62	52
Fluorene	mg/kg	TOC	550	B	8.0	69
Phenanthrene	mg/kg	TOC	1,404	D	56	25
Anthracene	mg/kg	TOC	850	C, D	22	39
2-Methylnaphthalene	mg/kg	TOC	285	B	34	8.4
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Fluoranthene	mg/kg	TOC	18,000	D	75	240
Pyrene	mg/kg	TOC	2,000	D	49	41
Benz[a]anthracene	mg/kg	TOC	910	C	11	83
Chrysene	mg/kg	TOC	980	D	34	29
Benzo[k]fluoranthene	mg/kg	TOC	530	D	24	22
Benzo[a]pyrene	mg/kg	TOC	684	C	14	49
Indeno[1,2,3-cd]pyrene	mg/kg	TOC	167	D	20	8.4
Dibenz[a,h]anthracene	mg/kg	TOC	120	D	6.0	20
Benzo[ghi]perylene	mg/kg	TOC	770	D	17	45
Phenols						
Phenol	mg/kg	TOC	9.0	B	0.5	18
Phthalates						
Bis[2-Ethylhexyl]phthalate	mg/kg	TOC	150	B	199.5	0.8
Miscellaneous Oxygenated Compounds						
Dibenzofuran	mg/kg	TOC	92	C	42	2.2
Pesticides/Polychlorinated Biphenyls						
α-Chlordane	mg/kg	TOC	0.4	A	0.006	67
4,4'-DDD	mg/kg	TOC	3.6	D	0.8	4.5
DDT and metabolites (sum)	mg/kg	TOC	3.6	D	0.7	5.1
Aroclor 1016	mg/kg	TOC	9.5	D	0.7	14
Aroclor 1248	mg/kg	TOC	60	D	3.0	20

Table D-19. (cont.)

Location/Analyte	Units	Measurement Basis	Maximum Detected Value[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Aroclor 1254	mg/kg	TOC	8.8	D	6.0	1.5
Aroclor 1260	mg/kg	TOC	49	D	0.5	98
PCBs (sum of Aroclors)	mg/kg	TOC	91	A	1.4	65
Otisco Lake						
Volatile Organic Compounds						
Ketones						
Acetone	mg/kg	TOC	19	C	0.87	22
2-Butanone	mg/kg	TOC	17	C	27	0.6
Low Molecular Weight Polycyclic Aromatic Hydrocarbons						
Phenanthrene	mg/kg	TOC	7.0	D	56	0.1
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Fluoranthene	mg/kg	TOC	19	D	75	0.3
Pyrene	mg/kg	TOC	20	D	49	0.4
Benz[a]anthracene	mg/kg	TOC	10	C	11	0.9
Chrysene	mg/kg	TOC	12	D	34	0.4
Benzo[k]fluoranthene	mg/kg	TOC	7.7	D	24	0.3
Benzo[a]pyrene	mg/kg	TOC	10	C	14	0.7
Indeno[1,2,3-cd]pyrene	mg/kg	TOC	4.7	D	20	0.2
Benzo[ghi]perylene	mg/kg	TOC	1.7	D	17	0.1
Phthalates						
Bis[2-Ethylhexyl]phthalate	mg/kg	TOC	0.9	B	199.5	4.5E-03
Pesticides						
4,4'-DDT	mg/kg	TOC	0.4	D	0.8	0.5
DDT and metabolites (sum)	mg/kg	TOC	0.4	D	0.7	0.6

Notes: A – NYSDEC Bioaccumulation (Wildlife)
B – NYSDEC Chronic (Benthos)
C – ORNL Secondary Chronic (Benthos)
D – OME LEL (Benthos) (assumed 1% total organic carbon [TOC])
F – USEPA SQB
G – USEPA SQC
[a] Maximum TOC normalized value.
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-20. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Surface Sediment (0–2 cm) from Onondaga Lake and Otisco Lake in 1992 to Minimum Organic Carbon-Normalized Screening Values

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Onondaga Lake						
Volatile Organic Compounds						
Halogenated Alkanes						
1,1-Dichloroethane	mg/kg	TOC	120	C	2.7	44
Chloroform	mg/kg	TOC	120	C	2.2	55
1,2-Dichloroethane	mg/kg	TOC	120	C	25	4.8
1,1,1-Trichloroethane	mg/kg	TOC	120	C	3	40
Carbon tetrachloride	mg/kg	TOC	120	C	4.7	26
1,1,2-Trichloroethane	mg/kg	TOC	120	C	120	1.0
1,1,2,2-Tetrachloroethane	mg/kg	TOC	120	F	94	1.3
Halogenated Alkenes						
1,1-Dichloroethene	mg/kg	TOC	120	C	3.1	39
1,2-Dichloroethene isomers (total)	mg/kg	TOC	120	C	40	3.0
cis-1,3-Dichloropropene	mg/kg	TOC	120	C	0.0051	23,529
trans-1,3-Dichloropropene	mg/kg	TOC	120	C	0.0051	23,529
Trichloroethene	mg/kg	TOC	120	C	22	5.5
Ketones						
2-Hexanone	mg/kg	TOC	120	C	2.2	55
4-Methyl-2-pentanone	mg/kg	TOC	120	C	3.3	36
Miscellaneous Volatile Compounds						
Carbon disulfide	mg/kg	TOC	120	C	0.085	1,412
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Tetrachloroethene	mg/kg	TOC	120	C	41	2.9
Phenols						
2-Methylphenol	mg/kg	TOC	1,300	C	1.2	1,083
Substituted Phenols						
Pentachlorophenol	mg/kg	TOC	3,100	B	40	78
Chlorinated Aliphatic Hydrocarbons						
Hexachloroethane	mg/kg	TOC	1,300	C, F	100	13
Hexachlorobutadiene	mg/kg	TOC	1,300	A	4	325
Hexachlorocyclopentadiene	mg/kg	TOC	1,300	B	4.4	295
Halogenated Ethers						
4-Bromophenyl-phenyl ether	mg/kg	TOC	1,300	F	130	10
Phthalates						
Diethyl phthalate	mg/kg	TOC	1,300	C	60	22
Di-*n*-butyl phthalate	mg/kg	TOC	1,300	C, F	1,100	1.2
Butylbenzyl phthalate	mg/kg	TOC	1,300	C, F	1,100	1.2
Pesticides/Polychlorinated Biphenyls						
α-Hexachlorocyclohexane	mg/kg	TOC	0.5	D	0.6	0.8
β-Hexachlorocyclohexane	mg/kg	TOC	0.5	D	0.5	1.0
δ-Hexachlorocyclohexane	mg/kg	TOC	0.5	C	12	4.2E-02
γ-Hexachlorocyclohexane	mg/kg	TOC	0.5	D	0.3	1.7
Aldrin	mg/kg	TOC	0.5	D	0.2	2.5
γ-Chlordane	mg/kg	TOC	0.5	A	0.006	83
Dieldrin	mg/kg	TOC	1.0	D	0.2	4.8
α-Endosulfan	mg/kg	TOC	0.5	B	0.03	17
β-Endosulfan	mg/kg	TOC	1.0	B	0.03	32
Endrin	mg/kg	TOC	1.0	D	0.3	3.2
Heptachlor	mg/kg	TOC	0.5	C	6.8	7.4E-02
Heptachlor epoxide	mg/kg	TOC	0.5	D	0.5	1.0
Methoxychlor	mg/kg	TOC	5.0	B	0.6	8.3
4,4'-DDE	mg/kg	TOC	1.0	D	0.5	1.9
4,4'-DDT	mg/kg	TOC	1.0	D	0.8	1.2
Toxaphene	mg/kg	TOC	50	B	0.01	5,000
Aroclor 1221	mg/kg	TOC	19	C	12	1.6
Aroclor 1232	mg/kg	TOC	9.6	C	60	0.2
Aroclor 1242	mg/kg	TOC	9.6	C	17	0.6

Table D-20. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Otisco Lake						
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	mg/kg	TOC	1.7	F	5.7	0.3
Toluene	mg/kg	TOC	1.7	C	5	0.3
Ethylbenzene	mg/kg	TOC	1.7	C	8.9	0.2
Xylene isomers (total)	mg/kg	TOC	1.7	F	2.5	0.7
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	mg/kg	TOC	1.7	B	3.5	0.5
1,2-Dichlorobenzene	mg/kg	TOC	7.2	C	33	0.2
1,3-Dichlorobenzene	mg/kg	TOC	7.2	C, F	170	4.2E-02
1,4-Dichlorobenzene	mg/kg	TOC	7.2	C	34	0.2
1,2,4-Trichlorobenzene	mg/kg	TOC	7.2	F	920	7.8E-03
Halogenated Alkanes						
Methylene chloride	mg/kg	TOC	1.7	C	37	4.6E-02
1,1-Dichloroethane	mg/kg	TOC	1.7	C	2.7	0.6
Chloroform	mg/kg	TOC	1.7	C	2.2	0.8
1,2-Dichloroethane	mg/kg	TOC	1.7	C	25	6.8E-02
1,1,1-Trichloroethane	mg/kg	TOC	1.7	C	3	0.6
Carbon tetrachloride	mg/kg	TOC	1.7	C	4.7	0.4
1,1,2-Trichloroethane	mg/kg	TOC	1.7	C	120	1.4E-02
1,1,2,2-Tetrachloroethane	mg/kg	TOC	1.7	F	94	1.8E-02
Halogenated Alkenes						
1,1-Dichloroethene	mg/kg	TOC	1.7	C	3.1	0.5
1,2-Dichloroethene isomers (total)	mg/kg	TOC	1.7	C	40	4.3E-02
cis -1,3-Dichloropropene	mg/kg	TOC	1.7	C	0.0051	333
trans -1,3-Dichloropropene	mg/kg	TOC	1.7	C	0.0051	333
Trichloroethene	mg/kg	TOC	1.7	C	22	7.7E-02
Ketones						
2-Hexanone	mg/kg	TOC	1.7	C	2.2	0.8
4-Methyl-2-pentanone	mg/kg	TOC	1.7	C	3.3	0.5
Miscellaneous Volatile Compounds						
Carbon disulfide	mg/kg	TOC	1.7	C	0.085	20
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Tetrachloroethene	mg/kg	TOC	1.7	C	41	4.1E-02
Hexachlorobenzene	mg/kg	TOC	7.2	D	2	3.6
Low Molecular Weight Polycyclic Aromatic Hydrocarbons						
Naphthalene	mg/kg	TOC	7.2	C	24	0.3
Acenaphthene	mg/kg	TOC	7.2	G	62	0.1
Fluorene	mg/kg	TOC	7.2	B	8	0.9
Anthracene	mg/kg	TOC	7.2	C, D	22	0.3
2-Methylnaphthalene	mg/kg	TOC	7.2	B	34	0.2
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Dibenz[a,h]anthracene	mg/kg	TOC	7.2	D	6	1.2
Phenols						
Phenol	mg/kg	TOC	7.2	B	0.5	14
2-Methylphenol	mg/kg	TOC	7.2	C	1.2	6.0
Substituted Phenols						
Pentachlorophenol	mg/kg	TOC	18	B	40	0.5
Chlorinated Aliphatic Hydrocarbons						
Hexachloroethane	mg/kg	TOC	7.2	C, F	100	7.2E-02
Hexachlorobutadiene	mg/kg	TOC	7.2	A	4	1.8
Hexachlorocyclopentadiene	mg/kg	TOC	7.2	B	4.4	1.6
Halogenated Ethers						
4-Bromophenyl-phenyl ether	mg/kg	TOC	7.2	F	130	5.5E-02
Phthalates						
Diethyl phthalate	mg/kg	TOC	7.2	C	60	0.1
Di-*n* -butyl phthalate	mg/kg	TOC	7.2	C, F	1,100	6.5E-03
Butylbenzyl phthalate	mg/kg	TOC	7.2	C, F	1,100	6.5E-03

Table D-20. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Miscellaneous Oxygenated Compounds						
Dibenzofuran	mg/kg	TOC	7.2	C	42	0.2
Pesticides and PCBs						
α-Hexachlorocyclohexane	mg/kg	TOC	0.3	D	0.6	0.5
β-Hexachlorocyclohexane	mg/kg	TOC	0.3	D	0.5	0.6
δ-Hexachlorocyclohexane	mg/kg	TOC	0.3	C	12	2.3E-02
γ-Hexachlorocyclohexane	mg/kg	TOC	0.3	D	0.3	0.9
Aldrin	mg/kg	TOC	0.3	D	0.2	1.4
α-Chlordane	mg/kg	TOC	0.3	A	0.006	47
γ-Chlordane	mg/kg	TOC	0.3	A	0.006	47
Dieldrin	mg/kg	TOC	0.5	D	0.2	2.7
α-Endosulfan	mg/kg	TOC	0.3	B	0.03	9.3
β-Endosulfan	mg/kg	TOC	0.5	B	0.03	18
Endrin	mg/kg	TOC	0.5	D	0.3	1.8
Heptachlor	mg/kg	TOC	0.3	C	6.8	4.1E-02
Heptachlor epoxide	mg/kg	TOC	0.3	D	0.5	0.6
Methoxychlor	mg/kg	TOC	2.8	B	0.6	4.7
4,4'-DDD	mg/kg	TOC	0.5	D	0.8	0.7
4,4'-DDE	mg/kg	TOC	0.5	D	0.5	1.1
Toxaphene	mg/kg	TOC	28	B	0.01	2,800
Aroclor 1016	mg/kg	TOC	5.4	D	0.7	7.7
Aroclor 1221	mg/kg	TOC	11	C	12	0.9
Aroclor 1232	mg/kg	TOC	5.4	C	60	9.0E-02
Aroclor 1242	mg/kg	TOC	5.4	C	17	0.3
Aroclor 1248	mg/kg	TOC	5.4	D	3	1.8
Aroclor 1254	mg/kg	TOC	5.4	D	6	0.9
Aroclor 1260	mg/kg	TOC	5.4	D	0.5	11

Notes: A – NYSDEC Bioaccumulation (Wildlife)
B – NYSDEC Chronic (Benthos)
C – ORNL Secondary Chronic (Benthos)
D – OME LEL (Benthos) (assumed 1% total organic carbon [TOC])
F – USEPA SQB
G – USEPA SQC
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-21. Ratios of Maximum Concentrations of Detected Chemicals in Fish Tissue from Onondaga Lake in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Onondaga Lake						
Total Metals and Cyanide						
Antimony	mg/kg	wet	2.1	H	0.38	5.5
Cadmium	mg/kg	wet	3.0E-02	F	2.86	1.0E-02
Chromium	mg/kg	wet	0.7	F	1.97	0.4
Copper	mg/kg	wet	1.5	H	85.4	1.8E-02
Lead	mg/kg	wet	0.3	F	2.23	0.1
Manganese	mg/kg	wet	0.4	H	494	7.3E-04
Methylmercury[c]	µg/kg	wet	3,173	F	13	244
Mercury	mg/kg	wet	5.1	F	0.013	390
Selenium	mg/kg	wet	0.9	F	0.79	1.1
Zinc	mg/kg	wet	17	F	28.6	0.6
Cyanide	mg/kg	wet	1.0	H	363	2.8E-03
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Toluene	µg/kg	wet	5.0	H	79,000	6.3E-05
Ketones						
Acetone	µg/kg	wet	180	H	56,100	3.2E-03
2-Butanone	µg/kg	wet	8.0	H	9,943,000	8.0E-07
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/kg	wet	47	B	330	0.1
Phthalates						
Di-*n*-butyl phthalate	µg/kg	wet	68	F	220	0.3
bis[2-Ethylhexyl]phthalate	µg/kg	wet	2300	F	2,170	1.1
Pesticides/Polychlorinated Biphenyls						
γ-Hexachlorocyclohexane	µg/kg	wet	9,000	F	3,950	2.3
α-Chlordane[d]	µg/kg	wet	33	F	4,200	7.9E-03
cis-Chlordane[d]	mg/kg	wet	20	F	4.2	4.8
trans-Chlordane[d]	mg/kg	wet	9.0	F	4.2	2.1
Chlordane isomers (sum)	µg/kg	wet	90	B	500	0.2
Dieldrin	µg/kg	wet	19	H	112	0.2
Aldrin and dieldrin (sum)	µg/kg	wet	19	B	120	0.2
α-Endosulfan[e]	µg/kg	wet	7.5	H	840	8.9E-03
Endosulfan sulfate[e]	µg/kg	wet	4.2	H	840	5.0E-03
Endrin	µg/kg	wet	32	F	20	1.6
Heptachlor and heptachlor epoxide (Sum)	µg/kg	wet	4.0	B	200	2.0E-02
DDT and metabolites (sum)	µg/kg	wet	600	F	6	100
Aroclor 1016	µg/kg	wet	1,607	H	10,000	0.2
Aroclor 1254	µg/kg	wet	11,000	F	355	31
Polychlorinated biphenyls (Sum)	µg/kg	wet	11,000	A	100	110
Dioxins/Furans						
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	wet	0.1	F	2	2.7E-02

Table D-21. (cont.)

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
F9 Harbor Brook						
Methylmercury [c]	µg/kg	wet	165	F	13	13
Aroclor 1248	µg/kg	wet	42	H	109	0.4
Polychlorinated biphenyls (Sum)	µg/kg	wet	77	A	100	0.8
F11 Ley Creek						
Methylmercury [c]	µg/kg	wet	69	F	13	5.3
Aroclor 1248	µg/kg	wet	2,400	H	109	22
Polychlorinated biphenyls (Sum)	µg/kg	wet	2,650	A	100	27
F12 East Flume						
Methylmercury [c]	µg/kg	wet	252	F	13	19
Aroclor 1248	µg/kg	wet	120	H	109	1.1
Polychlorinated biphenyls (Sum)	µg/kg	wet	171	A	100	2
F14 Bloody Brook						
Methylmercury [c]	µg/kg	wet	103	F	13	7.9
Aroclor 1248	µg/kg	wet	50	H	109	0.5
Polychlorinated biphenyls (Sum)	µg/kg	wet	97	A	100	1.0
F15 Ninemile Creek						
Methylmercury [c]	µg/kg	wet	168	F	13	13
Aroclor 1248	µg/kg	wet	41	H	109	0.4
Polychlorinated biphenyls (Sum)	µg/kg	wet	70	A	100	0.7
F16 Sawmill Creek						
Methylmercury [c]	µg/kg	wet	131	F	13	10

Notes: A – IJC Criteria (Birds)
B – NYSDEC Criteria (Piscivores)
F – ORNL no observable adverse effect level (NOAEL) (Birds) (belted kingfisher, great blue heron and osprey, assumed to eat 100% of trophic level. Includes small fish only.) These are NOAEL-based benchmarks for food, not wildlife NOAELs (mg/kg/d)
H – ORNL NOAEL (Mammals) (mink, assumed to eat 100% of trophic level 3, or small fish)
[a] Fish tissue concentrations are measured whole-body values or from fillet measurements.
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.
[c] Applied mercury screening value to methylmercury.
[d] Criteria for chlordane was applied to the chlordane isomers.
[e] Criteria for endosulfan was applied to the endosulfan isomers and endosulfan sulfate.

Table D-22. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Fish Tissue from Onondaga Lake in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Onondaga Lake						
Total Metals						
Aluminum	mg/kg	wet	4.7	H	5.86	0.8
Arsenic	mg/kg	wet	0.1	H	0.383	0.3
Barium	mg/kg	wet	0.1	H	30.2	4.0E-03
Beryllium	mg/kg	wet	0.1	H	3.71	3.2E-02
Nickel	mg/kg	wet	1.0	F	153	6.5E-03
Thallium	mg/kg	wet	0.1	H	0.042	2.5
Vanadium	mg/kg	wet	0.2	H	1.1	0.2
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/kg	wet	5.0	H	80,100	6.2E-05
Xylene isomers (total)	µg/kg	wet	5.0	H	6,379	7.8E-04
Chlorinated Aromatic Hydrocarbons						
1,2,4-Trichlorobenzene	µg/kg	wet	80	B	1,300	6.2E-02
Halogenated Alkanes						
Methylene chloride	µg/kg	wet	5.0	H	32,800	1.5E-04
Chloroform	µg/kg	wet	5.0	H	84,000	6.0E-05
1,2-Dichloroethane	µg/kg	wet	5.0	F	33,900	1.5E-04
1,1,1-Trichloroethane	µg/kg	wet	5.0	H	3,157,000	1.6E-06
Carbon tetrachloride	µg/kg	wet	5.0	H	89,800	5.6E-05
Halogenated Alkenes						
Vinyl chloride	µg/kg	wet	5.0	H	954	5.2E-03
Trichloroethene[c]	µg/kg	wet	5.0	H	2,126	2.4E-03
Ketones						
4-Methyl-2-pentanone	µg/kg	wet	5.0	H	140,400	3.6E-05
Semivolatile Organic Compounds						
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Benzo[a]pyrene	µg/kg	wet	80	H	3,040	2.6E-02
Phenols						
2-Methylphenol	µg/kg	wet	27	H	1,600,000	1.7E-05
Substituted Phenols						
Pentachlorophenol	µg/kg	wet	27	H	1,347	2.0E-02
2,3,4,6-Tetrachlorophenol[d]	µg/kg	wet	27	B	110	0.2
Chlorinated Aliphatic Hydrocarbons						
Hexachloroethane	µg/kg	wet	80	A	14,100	5.7E-03
Hexachlorobutadiene	µg/kg	wet	80	A	1,300	6.2E-02
Phthalates						
Diethyl phthalate	µg/kg	wet	80	H	13,922,000	5.7E-06
Pesticides/Polychlorinated Biphenyls						
Aldrin	µg/kg	wet	2.5	H	1,120	2.2E-03
γ-Chlordane	µg/kg	wet	0.9	F	4,200	2.0E-04
Oxychlordane[e]	µg/kg	wet	5.0	B	0.5	10
Heptachlor	µg/kg	wet	2.5	H	730	3.4E-03
β-Endosulfan[f]	µg/kg	wet	2.5	H	840	3.0E-03
Methoxychlor	µg/kg	wet	8.5	H	22,500	3.8E-04
Mirex	µg/kg	wet	1.0	B	0.33	3.0
Photomirex	µg/kg	wet	2.5	B	0.33	7.6
Toxaphene	µg/kg	wet	250	H	44,900	5.6E-03
Dioxins/Furans						
2,3,7,8-Tetrachlorodibenzodioxin	ng/kg	wet	2.4	H	5.6	0.4
F9 Harbor Brook						
Aroclor 1016	µg/kg	wet	23	H	10,000	2.3E-03
Aroclor 1242	µg/kg	wet	23	H	504	4.6E-02
Aroclor 1254	µg/kg	wet	23	F	355	6.5E-02

Table D-22. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
F11 Ley Creek						
Aroclor 1016	µg/kg	wet	250	H	10,000	2.5E-02
Aroclor 1242	µg/kg	wet	195	H	504	0.4
Aroclor 1254	µg/kg	wet	250	F	355	0.7
F12 East Flume						
Aroclor 1016	µg/kg	wet	27	H	10,000	2.7E-03
Aroclor 1242	µg/kg	wet	27	H	504	5.3E-02
Aroclor 1254	µg/kg	wet	27	F	355	7.5E-02
F14 Bloody Brook						
Aroclor 1016	µg/kg	wet	17	H	10,000	1.7E-03
Aroclor 1242	µg/kg	wet	17	H	504	3.3E-02
Aroclor 1254	µg/kg	wet	17	F	355	4.6E-02
F15 Ninemile Creek						
Aroclor 1016	µg/kg	wet	9.0	H	10,000	9.0E-04
Aroclor 1242	µg/kg	wet	9.0	H	504	1.8E-02
Aroclor 1254	µg/kg	wet	9.0	F	355	2.5E-02
F16 Sawmill Creek						
Aroclor 1016	µg/kg	wet	17	H	10,000	1.7E-03
Aroclor 1242	µg/kg	wet	17	H	504	3.3E-02
Aroclor 1248	µg/kg	wet	17	H	109	0.2
Aroclor 1254	µg/kg	wet	17	F	355	4.6E-02
PCBs (Sum)	µg/kg	wet	17	A	100	0.2

Notes:
A – IJC Criteria (Birds)
B – NYSDEC Criteria (Piscivores)
E – ORNL lowest observed adverse effect level (LOAEL) (Mammals)
F – ORNL NOAEL (Birds)
H – ORNL NOAEL (Mammals)
MDL – maximum detection limit
[a] Fish tissue concentrations are measured whole-body values or fillet measurements.
[b] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.
[c] The criteria for trichloroethylene was applied to trichloroethene.
[d] The criteria for tetrachlorophenol was applied to 2,3,4,6-tetrachlorophenol.
[e] The criteria for chlordane was applied to oxichlordane.
[f] The criteria for endosulfan was applied to β-endosulfan.
[g] The criteria for mirex was applied to photomirex.

Table D-23. Ratios of Maximum Concentrations of Detected Chemicals in Fish Tissue from Onondaga Lake in 1994-1999 to Minimum Screening Values[a]

Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Total Metals and Cyanide						
Mercury	ng/g	wet	3,300	F	13	254
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	mg/kg	wet	0.1	B	0.33	0.4
Pesticides/Polychlorinated Biphenyls						
Oxichlordane[c]	mg/kg	wet	4.8E-02	B	0.5	9.6E-02
cis -Chlordane	mg/kg	wet	1.3E-02	F	4.2	3.1E-03
trans -Chlordane	mg/kg	wet	1.3E-02	F	4.2	3.1E-03
Chlordane isomers (sum)	mg/kg	wet	9.5E-02	B	0.5	0.2
Dieldrin	mg/kg	wet	1.2E-02	H	0.112	0.1
Aldrin and dieldrin (sum)	mg/kg	wet	1.2E-02	B	0.12	0.1
Heptachlor and heptachlor epoxide (sum)	mg/kg	wet	1.2E-02	B	0.2	6.0E-02
DDT and metabolites (Sum)	mg/kg	wet	0.6	F	0.006	98
Aroclor 1016	mg/kg	wet	1.1	H	10	0.1
Aroclor 1242	mg/kg	wet	2.0	H	0.504	3.9
Aroclors 1254 and 1260	mg/kg	wet	1.9	F	0.355	5.4
Polychlorinated biphenyls (Sum)	mg/kg	wet	3.9	A	0.1	39
Mirex	mg/kg	wet	2.0E-03	B	0.33	6.1E-03
Dioxins/Furans						
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	wet	40	F	2	20
2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	ng/kg	wet	3.1	H	5.6	0.5
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	wet	7.6	H	900	8.4E-03
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg	wet	71	H	90	0.8
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg	wet	3.0	H	900	3.3E-03

Notes: A – IJC Criteria (Birds)
B – NYSDEC Criteria (Piscivores)
F – ORNL NOAEL (Birds)
H – ORNL NOAEL (Mammals)
[a] Fish tissue concentrations are measured whole-body values or fillet measurements
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined
[c] Criteria for chlordane was applied to oxichlordane

Table D-24. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Fish Tissue from Onondaga Lake in 1994-1999 to Minimum Screening Values[a]

Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Pesticides/Polychlorinated Biphenyls						
γ-Hexachlorocyclohexane	mg/kg	wet	2.5E-03	F	3.95	6.3E-04
Aldrin	mg/kg	wet	2.5E-03	H	1.12	2.2E-03
α-Endosulfan[c]	mg/kg	wet	2.5E-03	H	0.84	3.0E-03
β-Endosulfan	mg/kg	wet	2.5E-03	H	0.84	3.0E-03
Endosulfan sulfate	mg/kg	wet	2.5E-03	H	0.84	3.0E-03
Endrin	mg/kg	wet	2.5E-03	F	0.02	0.1
Heptachlor	mg/kg	wet	2.5E-03	H	0.73	3.4E-03
Photomirex[d]	mg/kg	wet	2.5E-03	B	0.33	7.6E-03

Notes: B – NYSDEC Criteria (Piscivores)
F – ORNL no observed adverse effect level (NOAEL) (Birds)
H – ORNL NOAEL (Mammals)
[a] Fish tissue concentrations are measured whole-body values or fillet measurements
[b] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined
[c] Criteria for endosulfan was applied to the endosulfan isomers and endosulfan sulfate
[d] Criteria for mirex was applied to photomirex

Table D-25. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Mink (1992–1998)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum		19	5,610		0.1		5.7	1.93	Ondreicka et al. (1966)	3.8	3.0
Antimony	8.6		6.4		2.6E-02		0.7	0.125	Schroeder et al. (1968)	15	5.3
Arsenic		0.3	11.2		1.1E-03		3.1E-02	0.126	Schroeder and Mitchner (1971)	0.8	0.2
Barium		0.5	890		7.7E-02		0.7	5.1	Perry et al. (1983)	0.2	0.1
Beryllium		0.5	0.6			5.0E-04	3.5E-02	0.66	Schroeder and Mitchner (1975)	0.1	0.1
Cadmium	0.1		14		2.9E-03		2.0E-02	1	Sutou et al. (1980)	9.8E-02	2.0E-02
Calcium	4,532		349,000		181		629	N/A	N/A	N/A	N/A
Chromium	3.1		1,990		1.8E-02		1.7	3.28	Mackenzie et al. (1958)	0.7	0.5
Cobalt		0.9	88			2.0E-03	0.1	5	Nation et al. (1983)	5.0E-02	2.8E-02
Copper	4.1		173		5.1E-02		0.4	11.7	Aulerich et al. (1982)	0.1	3.8E-02
Iron		23	34,200		0.4		28	N/A	N/A	N/A	N/A
Lead	1.2		251		1.8E-02		0.3	8	Azar et al. (1973)	5.8E-02	3.5E-02
Magnesium	1,154		17,300		27		104	N/A	N/A	N/A	N/A
Manganese	1.5		508		0.9		0.6	88	Laskey et al. (1982)	9.2E-03	6.7E-03
Methylmercury	12				1.2E-05		0.9	0.015	Wobeser et al. (1976)	63	61
Mercury	19		69		5.9E-05		1.5	1	Aulerich et al. (1974)	16	1.5
Nickel		3.8	650		1.7E-02		0.8	40	Ambrose et al. (1976)	3.0E-02	2.0E-02
Potassium	16,366		699		6.8		1,245	N/A	N/A	N/A	N/A
Selenium	3.5		1.1			5.0E-04	0.3	0.2	Rosenfeld and Beath (1954)	3.9	1.3
Silver		0.9	5.1			1.0E-03	7.5E-02	18.1	Walker (1971)	1.0E-02	4.2E-03
Sodium	2,891		3,520		276		251	N/A	N/A	N/A	N/A
Thallium		0.3	0.7			2.5E-03	2.3E-02	0.0074	Formigli et al. (1986)	13	3.1
Vanadium		0.9	101			2.0E-03	0.1	0.21	Domingo et al. (1986)	1.2	0.7
Zinc	68		276		0.1		5.4	160	Schlicker and Cox (1968)	9.6E-02	3.4E-02
Cyanide	4.1		35		0.2		0.4	68.7	Tewe and Maner (1981)	N/A	5.2E-03
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene		2.1E-02	5.7			5.0E-03	6.5E-03	26	Nawrot and Staples (1979)	5.0E-04	2.5E-04
Toluene	2.1E-02		4.2			5.0E-03	5.3E-03	26	Nawrot and Staples (1979)	2.7E-04	2.0E-04
Ethylbenzene		2.1E-02	1.3			5.0E-03	3.1E-03	26	Nawrot and Staples (1979)	1.9E-04	1.2E-04
Xylene isomers (total)		2.1E-02	13			5.0E-03	1.2E-02	2.1	Marks et al. (1982)	4.9E-04	5.7E-03
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene		2.1E-02	43			5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene		0.3	7.9		1.7E-03		3.2E-02	250	Lake et al. (1997)	3.2E-04	1.3E-04
1,3-Dichlorobenzene		0.3	6.8		1.2E-03		3.1E-02	250	Lake et al. (1997)	2.9E-04	1.2E-04
1,4-Dichlorobenzene	0.2		16		1.7E-03		1.2E-02	250	Lake et al. (1997)	3.3E-04	4.9E-05
Dichlorobenzenes (sum)	0.2		23		4.6E-03		3.0E-02	250	Lake et al. (1997)	–	1.2E-04
1,2,4-Trichlorobenzene		0.3	0.3		2.4E-03		2.6E-02	8	Cote et al. (1988)	9.1E-03	3.E-03
1,2,3-Trichlorobenzene				1.4	2.7E-03		1.3E-03	8	Cote et al. (1988)	N/A	2.E-04
1,3,5-Trichlorobenzene			4.2		1.6E-03	5.0E-03	3.4E-03	8	Cote et al. (1988)	N/A	4.E-04
Trichlorobenzenes (sum)		0.3	4.2		6.7E-03		2.9E-02	8	Cote et al. (1988)	N/A	3.6E-03
Halogenated Alkanes											
Methylene chloride		2.1E-02	0.1			5.0E-03	2.2E-03	5.85	NCA (1982)	–	4.E-04

Table D-25. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Ketones											
Acetone	0.8		1.1			5.0E-03	5.9E-02	10	USEPA (1986)	1.6E-02	6.E-03
2-Butanone	3.4E-02		2.9			5.0E-03	5.3E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds											
Isopropanol	0.1		1.8E-02				4.2E-03	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,3,4-Tetrachlorobenzene			0.7			5.0E-03	1.0E-03	N/A	N/A	–	N/A
Tetrachlorobenzene (mixed)			1.0				7.6E-04	1.6	Grant et al. (1977)	–	4.8E-04
Pentachlorobenzene		0.1	0.3				4.4E-03	1.6	Grant et al. (1977)	7.8E-03	2.8E-03
Hexachlorobenzene	0.4		1.2			5.0E-03	3.5E-02	0.05	Fassbender et al. (1977)	4.6E-02	0.7
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	0.2		30			5.0E-03	4.4E-02	1	Mackenzie and Angevine (1981)	N/A	4.4E-02
Acenaphthylene		0.3	6.3			5.0E-03	3.1E-02	1	Mackenzie and Angevine (1981)	N/A	3.1E-02
Acenaphthene		0.3	15			5.0E-03	3.8E-02	1	Mackenzie and Angevine (1981)	N/A	3.8E-02
Fluorene		0.3	7.2			5.0E-03	3.2E-02	1	Mackenzie and Angevine (1981)	7.9E-02	3.2E-02
Phenanthrene		0.3	22			5.0E-03	4.3E-02	1	Mackenzie and Angevine (1981)	9.0E-02	4.3E-02
Anthracene		0.3	8.9			5.0E-03	3.3E-02	1	Mackenzie and Angevine (1981)	8.0E-02	3.3E-02
1-Methylnaphthalene	6.2		43				0.5	1	Mackenzie and Angevine (1981)	–	0.5
2-Methylnaphthalene		0.3	3.7			5.0E-03	2.9E-02	1	Mackenzie and Angevine (1981)	N/A	2.9E-02
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene		0.3	230			5.0E-03	0.2	1	Mackenzie and Angevine (1981)	0.2	0.2
Pyrene		0.3	17			5.0E-03	3.9E-02	1	Mackenzie and Angevine (1981)	8.6E-02	3.9E-02
Benz[a]anthracene		0.3	7.7			5.0E-03	3.2E-02	1	Mackenzie and Angevine (1981)	7.9E-02	3.2E-02
Chrysene		0.3	7.5			5.0E-03	3.2E-02	1	Mackenzie and Angevine (1981)	7.9E-02	3.2E-02
Benzo[b]fluoranthene		0.3	29			5.0E-03	4.8E-02	1	Mackenzie and Angevine (1981)	N/A	4.8E-02
Benzo[k]fluoranthene		0.3	3.8			5.0E-03	2.9E-02	1	Mackenzie and Angevine (1981)	N/A	2.9E-02
Benzo[a]pyrene		0.3	7.8			5.0E-03	3.2E-02	1	Mackenzie and Angevine (1981)	7.9E-02	3.2E-02
Indeno[1,2,3-cd]pyrene		0.3	1.9			5.0E-03	2.8E-02	1	Mackenzie and Angevine (1981)	7.5E-02	2.8E-02
Dibenz[a,h]anthracene		0.3	0.9			5.0E-03	2.7E-02	1	Mackenzie and Angevine (1981)	7.4E-02	2.7E-02
Benzo[ghi]perylene		0.3	9.3			5.0E-03	3.3E-02	1	Mackenzie and Angevine (1981)	8.0E-02	3.3E-02
Benzo[e]pyrene			3.4			5.0E-03	3.1E-03	1	Mackenzie and Angevine (1981)	–	3.1E-03
Phenols											
Phenol		0.1	4.5E-02			5.0E-03	2.5E-02	523	NCI (1980)	4.8E-05	4.8E-05
4-Methylphenol			8.2E-02				6.2E-05	219	Hornshaw et al. (1986)	–	2.8E-07
Phthalates											
Di-*n* -butyl phthalate	0.3			21		5.0E-03	3.8E-02	550	Lamb et al. (1987)	1.9E-04	6.8E-05
bis[2-Ethylhexyl]phthalate	9.7		3.0		1.0E-02		0.7	18.3	Lamb et al. (1987)	0.1	4.0E-02
Miscellaneous Oxygenated Compounds											
Dibenzofuran		0.3	1.3			5.0E-03	2.7E-02	N/A	N/A	N/A	N/A

Table D-25. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Carbazole		0.3	0.5			5.0E-03	2.6E-02	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls											
δ-Hexachlorocyclohexane	1.1E-02			7.5E-03		2.6E-05	8.8E-04	8	Palmer et al. (1978)	3.2E-04	1.1E-04
γ-Hexachlorocyclohexane	34			7.5E-03		2.6E-05	2.6	8	Palmer et al. (1978)	2.9E-04	0.3
α-Chlordane	0.1		5.1E-03			2.6E-05	6.8E-03	0.075	FAO/WHO (1983)	6.5E-03	9.1E-02
Chlordane isomers (sum)	0.3		5.1E-03			2.6E-05	2.6E-02	0.075	FAO/WHO (1983)	2.0E-02	0.3
α-Endosulfan	3.1E-02			7.5E-03		2.6E-05	2.3E-03	0.15	Dikshith et al. (1984)	4.5E-02	1.6E-02
Endosulfan sulfate	1.8E-02			1.5E-02		5.0E-05	1.4E-03	0.15	Dikshith et al. (1984)	2.6E-02	9.0E-03
Dieldrin	0.1			1.5E-02		5.0E-05	1.4E-03	0.018	Harr et al. (1970)	2.3	0.1
Aldrin and dieldrin (sum)	0.1						6.1E-03	0.018	Harr et al. (1970)	0.2	0.3
Endrin	0.1			1.5E-02		5.0E-05	1.1E-02	0.065	Treon et al. (1955)	0.5	0.2
Heptachlor epoxide	4.6E-02			7.5E-03		2.6E-05	3.5E-03	0.075	Kinoshita and Kempf (1970)	2.9E-02	4.6E-02
Heptachlor and heptachlor epoxide (sum)	4.6E-02						3.5E-03	0.075	Kinoshita and Kempf (1970)	3.6E-02	4.6E-02
4,4'-DDD	0.5		4.7E-02			5.0E-05	2.9	85	NCI (1978), cited in ATSDR (1994)	1.8E-03	3.4E-02
4,4'-DDE	1.1			1.5E-02		5.0E-05	0.1	28	Gellert and Heinrich (1975), cited in ATSDR (1994)	1.3E-02	4.9E-03
4,4'-DDT	0.3			1.5E-02		5.0E-05	2.1E-02	0.8	Fitzhugh (1948)	2.4E-02	2.6E-02
DDT and metabolites (sum)	2.7		4.7E-02				2.87	0.8	Fitzhugh (1948)	0.7	3.6
Mirex	1.2E-02						8.8E-04	0.05	Chu et al. (1981)	–	1.8E-02
Aroclor 1016	6.1		0.2			5.0E-04	0.5	1.37	Bleavins et al. (1980)	0.8	0.3
Aroclor 1242	6.7			0.2		5.0E-04	0.5	0.069	Bleavins et al. (1980)	3.2	7.4
Aroclor 1248	10		1.1			5.0E-04	1.2	0.01	Barsotti et al. (1976)	309	117
Aroclor 1254	46		0.1			5.0E-04	3.5	0.0068	McCoy et al. (1995)	27	516
Aroclor 1260	2.9		1.0			5.0E-04	3.0	6.9	Linder et al. (1974)	0.2	0.4
Aroclors 1254 and 1260	6.5	0					0.7	0.0068	McCoy et al. (1995)	–	99
PCBs (sum)	46		2.1			5.0E-04	3.5	0.0068	McCoy et al. (1995)	29	516

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– Indicates that a compound was not included in the Honeywell table
Maximum fish dry weight concentration differs from maximum wet weight concentration listed in Tables D-6 and D-7
[a] Hazard quotients equal to or greater than one are outlined.
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-26. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Mink (1992–1998)

Analyte	Fish Detected Value[a] (ng/kg dry)	One-Half MDL (ng/kg dry)	NYSDEC EED (ng/kg BW/day)	WHO Mammalian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8		0.1	0.01	1.4E-03			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p* -dioxin	4.1		0.3	0.01	3.1E-03			
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.2	1.4E-02	0.01	1.4E-04			
1,2,3,4,7,8-Hexachlorodibenzofuran	19		1.4	0.1	0.1			
1,2,3,4,7,8-Hexachlorodibenzo-*p* -dioxin	3.0		0.2	0.1	2.3E-02			
1,2,3,6,7,8-Hexachlorodibenzofuran	6.4		0.5	0.1	4.9E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p* -dioxin	7.7		0.6	0.1	5.9E-02			
1,2,3,7,8,9-Hexachlorodibenzofuran		0.2	1.4E-02	0.1	1.4E-03			
1,2,3,7,8,9-Hexachlorodibenzo-*p* -dioxin		0.2	1.4E-02	0.1	1.4E-03			
1,2,3,7,8-Pentachlorodibenzofuran	22		1.6	0.05	0.1			
1,2,3,7,8-Pentachlorodibenzo-*p* -dioxin	18		1.3	1	1.3			
2,3,4,6,7,8-Hexachlorodibenzofuran	2.0		0.2	0.1	1.5E-02			
2,3,4,7,8-Pentachlorodibenzofuran	263		20	0.5	10			
2,3,7,8-Tetrachlorodibenzofuran	53		4.0	0.1	0.4			
2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	11		0.9	1	0.9			
Octachlorodibenzofuran		0.2	1.4E-02	0.0001	1.4E-06			
Octachlorodibenzo-*p* -dioxin	4.0		0.3	0.0001	3.0E-05			
					13	1.0	13	13

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO mammalian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ.
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans.
[b] TRV is for 2,3,7,8-TCDD (Murray et al., 1979)
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day
NYSDEC sediment ingestion rate (SIR)= 1.0% of FIR
NYSDEC water ingestion rate (WIR) =0.105 L/day
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-27. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Mink (1992–1998)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Aromatic Hydrocarbons								
Styrene	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Halogenated Alkanes								
Chloromethane	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Bromomethane	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Chloroethane	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
1,1-Dichloroethane	2.1E-02	1.7	5.0E-03	3.4E-03	50	Lane et al. (1982)	N/A	N/A
Chloroform	2.1E-02	1.7	5.0E-03	3.4E-03	15	Palmer et al. (1979)	4.9E-04	2.3E-04
1,2-Dichloroethane	2.1E-02	1.7	5.0E-03	3.4E-03	50	Lane et al. (1982)	1.5E-04	6.8E-05
1,1,1-Trichloroethane	2.1E-02	1.7	5.0E-03	3.4E-03	1,000	Lane et al. (1982)	7.3E-06	3.4E-06
Carbon tetrachloride	2.1E-02	1.7	5.0E-03	3.4E-03	16	Alumot et al. (1976)	4.6E-04	2.1E-04
Bromodichloromethane	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
1,2-Dichloropropane	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Dibromochloromethane	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	2.1E-02	1.7	5.0E-03	3.4E-03	1,000	Lane et al. (1982)	N/A	3.4E-06
Bromoform	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Halogenated Alkenes								
Vinyl chloride	2.1E-02	1.7	5.0E-03	3.4E-03	0.17	Feron et al. (1981)	4.3E-02	2.0E-02
1,1-Dichloroethene	2.1E-02	1.7	5.0E-03	3.4E-03	2.5	Quast et al. (1983)	2.9E-03	1.4E-03
1,2-Dichloroethene isomers (total)	2.1E-02	1.7	5.0E-03	6.0E-03	2.5	Quast et al. (1983)	1.6E-04	2.4E-03
cis -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
trans -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Trichloroethene	2.1E-02	1.7	5.0E-03	3.4E-03	0.7	Buben and O'Flaherty (1985)	1.0E-02	4.9E-03
Tetrachloroethene	2.1E-02	1.7	5.0E-03	3.4E-03	1.4	Buben and O'Flaherty (1985)	5.2E-03	2.4E-03
Ketones								
2-Hexanone	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds								
Carbon disulfide	2.1E-02	1.7	5.0E-03	3.4E-03	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.1			4.2E-03	1.6	Grant et al. (1977)	0.00766	2.6E-03
Phenols								
2-Methylphenol	0.1	21	5.0E-03	2.5E-02	219	Hornshaw et al. (1986)	2.6E-04	1.1E-04
2,4-Dimethylphenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
4,3-Methylphenol	0.1			8.4E-03	N/A	N/A	N/A	N/A
Substituted Phenols								
2-Chlorophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A

Table D-27. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
2,4,6-Trichlorophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	0.1	50	1.3E-02	4.8E-02	N/A	N/A	N/A	N/A
Pentachlorophenol	0.1	50	1.3E-02	4.8E-02	0.24	Schwetz et al. (1978)	0.4	0.2
2-Nitrophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
4-Nitrophenol	0.1	50	1.3E-02	4.8E-02	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	0.1	50	1.3E-02	4.8E-02	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol		50	1.3E-02	3.9E-02	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol	0.1			8.4E-03	1	Hattula et al. (1981)	N/A	8.4E-03
2,6-Dichlorophenol	0.1			8.4E-03	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane	0.3	21	5.0E-03	4.2E-02	0.05	Tugarinova et al. (1960)	N/A	0.8
Hexachlorobutadiene	0.3	21	5.0E-03	4.2E-02	0.2	Kociba et al. (1977)	N/A	0.2
Hexachlorocyclopentadiene	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
Phthalates								
Dimethylphthalate	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
Diethylphthalate	0.3	21	5.0E-03	4.2E-02	4,580	Lamb et al. (1987)	2.28E-05	9.2E-06
Butylbenzylphthalate	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
Di-*n* -octylphthalate	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds								
Isophorone	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
Benzyl alcohol	0.1			8.4E-03	N/A	N/A	N/A	N/A
Benzoic acid	0.1			8.4E-03	N/A	N/A	N/A	N/A
Organonitrogen Compounds								
Nitrobenzene	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylamine	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
2-Nitroaniline	0.8	50	1.3E-02	0.1	N/A	N/A	N/A	N/A
3-Nitroaniline	0.8	50	1.3E-02	0.1	N/A	N/A	N/A	N/A
4-Nitroaniline	0.8	50	1.3E-02	0.1	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
N -nitrosodiphenylamine	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
4-Chloroaniline	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.3	21	5.0E-03	4.2E-02	N/A	N/A	N/A	N/A
1-Naphthylamine	0.1			4.2E-03	N/A	N/A	N/A	N/A
1-Nitrosopiperidine	0.1			4.2E-03	N/A	N/A	N/A	N/A
2-Picoline	0.1			4.2E-03	N/A	N/A	N/A	N/A
4-Amino biphenyl	0.1			4.2E-03	N/A	N/A	N/A	N/A

Table D-27. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Aniline	0.1			4.2E-03	N/A	N/A	N/A	N/A
Azobenzene	0.1			4.2E-03	N/A	N/A	N/A	N/A
Benzidine	0.1			4.2E-03	N/A	N/A	N/A	N/A
Diphenylhydrazine	0.1			4.2E-03	N/A	N/A	N/A	N/A
N-nitroso dibutylamine	0.1			4.2E-03	N/A	N/A	N/A	N/A
p-Dimethylaminoazobenzene	0.1			4.2E-03	N/A	N/A	N/A	N/A
Pentachloronitrobenzene	0.1			4.2E-03	N/A	N/A	N/A	N/A
Phenacetin	0.1			4.2E-03	N/A	N/A	N/A	N/A
Pronamide	0.1			4.2E-03	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls								
α-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	3.4E-03	8	Palmer et al. (1978)	5.3E-04	4.3E-04
β-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	3.4E-03	8	Palmer et al. (1978)	5.3E-04	4.3E-04
Aldrin	1.4E-02	7.5E-03	2.6E-05	1.1E-03	0.2	Treon and Cleveland (1955)	1.1E-02	5.5E-03
γ-Chlordane	3.5E-03	7.5E-03	2.6E-05	2.7E-04	0.075	FAO/WHO (1983)	5.0E-04	3.6E-03
β-Endosulfan	1.4E-02	1.5E-02	5.0E-05	1.1E-03	0.15	Dikshith et al. (1984)	1.5E-02	7.5E-03
Methoxychlordane	0.5			4.0E-02	N/A	N/A	–	N/A
Endrin aldehyde	1.4E-02	1.5E-02	5.0E-05	1.1E-03	0.065	Treon et al. (1955)	2.5E-02	1.7E-02
Endrin ketone	6.7E-03	1.5E-02	5.0E-05	5.3E-04	0.065	Treon et al. (1955)	1.7E-02	8.1E-03
Heptachlor	1.4E-02	7.5E-03	2.6E-05	1.1E-03	0.075	Kinoshita and Kempf (1970)	2.3E-02	1.5E-02
Methoxychlor	3.5E-02	7.5E-02	2.6E-04	2.7E-03	4	Gray et al. (1988)	2.8E-02	6.8E-04
Toxaphene	1.0	0.8	2.6E-03	8.1E-02	8	Kennedy et al. (1973)	2.9E-02	1.0E-02
Photomirex	1.4E-02			1.9E-02	0.25	Chu et al. (1981)	N/A	7.6E-02
Mirex and photomirex	1.6E-02			1.2E-03	0.05	Chu et al. (1981)	–	2.5E-02
Aroclor 1221	2.1	0.295	1.1E-03	0.2	0.01	Barsotti et al. (1976)	–	16
Aroclor 1232	0.9	0.2	5.0E-04	1.8E-04	0.01	Barsotti et al. (1976)	15	1.8E-02
Miscellaneous								
3-Methylcholanthrene	0.1			4.1E-03	N/A	N/A	N/A	N/A
7,12-Dimethylbenz[a]anthracene	0.1			4.2E-03	N/A	N/A	N/A	N/A
Dibenz[a,j]acridine	0.1			4.1E-03	N/A	N/A	N/A	N/A
Ethylmethanesulfonate	0.1			4.2E-03	N/A	N/A	N/A	N/A
Methylmethanesulfonate	0.1			4.2E-03	N/A	N/A	N/A	N/A

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
Maximum fish dry weight concentration differs from maximum wet weight concentration listed in Tables D-6 and D-7
[a] Hazard quotients equal to or greater than one are outlined.
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)

Table D-28. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Belted Kingfisher (1992–1998)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum		19	5,610		0.1		8.8	110	Carriere et al. (1986)	5.4E-02	8.0E-02
Antimony	8.6		6.4		2.6E-02		1.0	1400	Damron and Wilson (1975)	2.1E-03	7.2E-04
Arsenic		0.3	11.2		1.1E-03		4.8E-02	2.46	USFWS (1964)	5.4E-02	1.9E-02
Barium		0.5	890		7.7E-02		1.1	20.8	Johnson et al. (1960)	7.2E-03	5.3E-02
Beryllium		0.5	0.6			5.0E-04	5.4E-02	0.66	Schroeder and Mitchner (1975)*	N/A	8.2E-02
Cadmium	0.1		14		2.9E-03		3.1E-02	1.45	White and Finley (1978)	9.9E-02	2.2E-02
Calcium	4,532		349,000		181		959	N/A	N/A	N/A	N/A
Chromium	3.1		1,990		1.8E-02		2.7	1	Haseltine et al. (ND)	1.1	2.7
Cobalt		1	88			2.0E-03	0.2	5	Nation et al. (1983)*	N/A	4.3E-02
Copper	4.1		173		5.1E-02		0.7	47	Mehring et al. (1960)	4.5E-02	1.5E-02
Iron		23	34,200		0.4		43	N/A	N/A	N/A	N/A
Lead	1.2		251		1.8E-02		0.4	1.13	Edens et al. (1976)	0.3	0.4
Magnesium	1,154		17,300		27		158	N/A	N/A	N/A	N/A
Manganese	1.5		508		0.9		0.9	977	Laskey and Edens (1985)	6.3E-04	8.9E-04
Methylmercury	12				1.2E-05		1.4	0.0064	Heinz (1979)	345	222
Mercury	19		69		5.9E-05		2.3	0.45	Hill and Schaffner (1976)	51	5.2
Nickel		4	650		1.7E-02		1.2	77.4	Cain and Pafford (1981)	1.5E-02	1.6E-02
Potassium	16,366		699		6.8		1,916	N/A	N/A	N/A	N/A
Selenium	3.5		1.1			5.0E-04	0.4	0.4	Heinz et al. (1989)	3.0	1.0
Silver		1	5.1			1.0E-03	0.1	18.1	Walker (1971)*	N/A	N/A
Sodium	2,891		3,520		276		374	N/A	N/A	N/A	N/A
Thallium		0.3	0.7			2.5E-03	3.5E-02	0.237	Hudson et al. (1984)	0.6	0.1
Vanadium		1	101			2.0E-03	0.2	11.4	White and Dieter (1978)	2.5E-02	2.E-02
Zinc	68		276		0.1		8.3	14.5	Stahl et al. (1990)	0.2	0.6
Cyanide	4.1		35		0.2		0.5	68.7	Tewe and Maner (1981)*	N/A	8.E-03
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene		2.1E-02	5.7			5.0E-03	9.7E-03	N/A	N/A	N/A	N/A
Toluene	2.1E-02		4.2			5.0E-03	7.9E-03	26	Nawrot and Staples (1979)*	N/A	3.E-04
Ethylbenzene		2.1E-02	1.3			5.0E-03	4.5E-03	N/A	N/A	N/A	N/A
Xylene isomers (total)		2.1E-02	13			5.0E-03	1.8E-02	2.1	Marks et al. (1982)*	N/A	9.E-03
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene		2.1E-02	43			5.0E-03	5.3E-02	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene		0.3	7.9		1.7E-03		4.9E-02	6	Jori et al. (1982)	1.9E-02	8.E-03
1,3-Dichlorobenzene		0.3	6.8		1.2E-03		4.8E-02	6	Jori et al. (1982)	1.9E-02	8.E-03
1,4-Dichlorobenzene	0.2		16		1.7E-03		1.9E-02	6	Jori et al. (1982)	1.9E-02	3.E-03
Dichlorobenzenes (sum)	0.2		23		4.6E-03		4.6E-02	6	Jori et al. (1982)	–	8.E-03
1,2,4-Trichlorobenzene		0.3	0.3		2.4E-03		4.0E-02	8	Cote et al. (1988)*	N/A	5.E-03
1,2,3-Trichlorobenzene				1.4	2.7E-03		1.9E-03	8	Cote et al. (1988)*	–	2.E-04
1,3,5-Trichlorobenzene			4.2		1.6E-03	5.0E-03	5.1E-03	8	Cote et al. (1988)*	–	6.E-04
Trichlorobenzenes (sum)		0.3	4.2		6.7E-03		4.4E-02	8	Cote et al. (1988)*	–	5.E-03
Halogenated Alkanes											
Methylene chloride		2.1E-02	0.1			5.0E-03	3.1E-03	5.85	NCA (1982)*	N/A	5.E-04

Table D-28. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Ketones											
Acetone	0.8		1.1			5.0E-03	9.0E-02	10	USEPA (1986)*	N/A	9.0E-03
2-Butanone	3.4E-02		2.9			5.0E-03	7.9E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds											
Isopropanol	0.1		1.8E-02				6.4E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,3,4-Tetrachlorobenzene			0.7			5.0E-03	1.3E-03	N/A	N/A	–	N/A
Tetrachlorobenzene (mixed)			1.0				1.2E-03	1.6	Grant et al. (1977)*	–	7.3E-04
Pentachlorobenzene		0.1	0.3				6.8E-03	6	Jori et al. (1982)	3.2E-03	1.1E-03
Hexachlorobenzene	0.4		1.2			5.0E-03	5.4E-02	0.2	Vos et al. (1971)	0.2	0.3
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	0.2		30			5.0E-03	6.8E-02	1	Hough et al. (1993)	N/A	6.8E-02
Acenaphthylene		0.3	6.3			5.0E-03	4.8E-02	1	Hough et al. (1993)	N/A	4.8E-02
Acenaphthene		0.3	15			5.0E-03	5.8E-02	1	Hough et al. (1993)	N/A	5.8E-02
Fluorene		0.3	7.2			5.0E-03	4.9E-02	1	Hough et al. (1993)	0.1	4.9E-02
Phenanthrene		0.3	22			5.0E-03	6.6E-02	1	Hough et al. (1993)	0.1	6.6E-02
Anthracene		0.3	8.9			5.0E-03	5.1E-02	1	Hough et al. (1993)	0.1	5.1E-02
1-Methylnaphthalene	6.2		43				0.8	1	Hough et al. (1993)	N/A	0.8
2-Methylnaphthalene		0.3	3.7			5.0E-03	4.4E-02	1	Hough et al. (1993)	N/A	4.4E-02
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene		0.3	230			5.0E-03	0.3	1	Hough et al. (1993)	0.1	0.3
Pyrene		0.3	17			5.0E-03	6.0E-02	1	Hough et al. (1993)	0.1	6.0E-02
Benz[a]anthracene		0.3	7.7			5.0E-03	4.9E-02	1	Hough et al. (1993)	0.1	4.9E-02
Chrysene		0.3	7.5			5.0E-03	4.9E-02	1	Hough et al. (1993)	0.1	4.9E-02
Benzo[b]fluoranthene		0.3	29			5.0E-03	7.4E-02	1	Hough et al. (1993)	N/A	7.4E-02
Benzo[k]fluoranthene		0.3	3.8			5.0E-03	4.5E-02	1	Hough et al. (1993)	N/A	4.5E-02
Benzo[a]pyrene		0.3	7.8			5.0E-03	4.9E-02	1	Hough et al. (1993)	0.1	4.9E-02
Indeno[1,2,3-cd]pyrene		0.3	1.9			5.0E-03	4.2E-02	1	Hough et al. (1993)	0.1	4.2E-02
Dibenz[a,h]anthracene		0.3	0.9			5.0E-03	4.1E-02	1	Hough et al. (1993)	0.1	4.1E-02
Benzo[ghi]perylene		0.3	9.3			5.0E-03	5.1E-02	1	Hough et al. (1993)	0.1	5.1E-02
Benzo[e]pyrene			3.4			5.0E-03	4.5E-03	1	Hough et al. (1993)	–	4.5E-03
Phenols											
Phenol		0.1	4.5E-02			5.0E-03	3.9E-02	6	Schafer et al. (1983)	6.5E-03	6.5E-03
4-Methylphenol			8.2E-02				9.6E-05	219	Hornshaw et al. (1986)*	–	4.4E-07
Phthalates											
Di-*n* -butyl phthalate	0.3			21		5.0E-03	5.8E-02	0.11	Peakall (1974)	9.2E-02	0.5
bis[2-Ethylhexyl]phthalate	9.7		3.0		1.0E-02		1.1	1.1	Peakall (1974)	2.6	1.0
Miscellaneous Oxygenated Compounds											
Dibenzofuran		0.3	1.3			5.0E-03	4.2E-02	N/A	N/A	N/A	N/A

Table D-28. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Carbazole		0.3	0.5			5.0E-03	4.0E-02	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls											
δ-Hexachlorocyclohexane	1.1E-02			7.5E-03		2.6E-05	1.3E-03	0.02	Sauter and Steele (1972)	2.0E-03	6.7E-02
γ-Hexachlorocyclohexane	34.4			7.5E-03		2.6E-05	4.0	0.02	Sauter and Steele (1972)	2.9E-04	201
α-Chlordane	0.1		5.1E-03			2.6E-05	1.0E-02	2.4	Stickel et al. (1983)	1.9E-02	4.4E-03
Chlordane isomers (sum)	0.3		5.1E-03			2.6E-05	4.0E-02	2.4	Stickel et al. (1983)	5.9E-02	1.7E-02
α-Endosulfan	3.1E-02			7.5E-03		2.6E-05	3.6E-03	50	Abiola (1992)	2.1E-04	7.2E-05
Endosulfan sulfate	1.8E-02			1.5E-02		5.0E-05	2.1E-03	11.1	Abiola (1992)	2.6E-02	1.9E-04
Dieldrin	0.1			1.5E-02		5.0E-05	2.1E-03	0.077	Mendenhall et al. (1983)	2.3	2.7E-02
Aldrin and dieldrin (sum)	0.1						9.3E-03	0.77	Mendenhall et al. (1983)	0.2	1.2E-02
Endrin	0.1			1.5E-02		5.0E-05	1.7E-02	0.01	Fleming et al. (1982)	0.5	1.7
Heptachlor epoxide	4.6E-02			7.5E-03		2.6E-05	5.4E-03	0.005	WHO 1984	2.9E-02	1.1
Heptachlor and heptachlor epoxide (sum)	4.6E-02						5.3E-03	0.005	WHO 1984	3.6E-02	1.1
4,4'-DDD	0.5		4.7E-02			5.0E-05	5.4E-02	0.0028	Anderson et al. (1975)	0.9	19
4,4'-DDE	1.1			1.5E-02		5.0E-05	0.1	0.038	Mendenhall et al. (1983) as cited in WHO (1989)	15	3.3
4,4'-DDT	0.3			1.5E-02		5.0E-05	3.2E-02	0.0028	Anderson et al. (1975)	3.2	12
DDT and metabolites (sum)	2.7		4.7E-02				0.3	0.0028	Anderson et al. (1975)	90	113
Mirex	1.2E-02						1.4E-03	20	Newell et al. (1987)	–	6.8E-05
Aroclor 1016	6.1		0.2			5.0E-04	0.7	0.18	Dahlgren et al. (1982)	9.4	4.0
Aroclor 1242	6.7			0.2		5.0E-04	0.8	0.41	Mc Lane and Hughes (1980)	0.8	1.9
Aroclor 1248	10		1.1			5.0E-04	1.2	0.18	Dahlgren et al. (1982)	27	6.6
Aroclor 1254	46		0.1			5.0E-04	5.4	0.18	Dahlgren et al. (1982)	32	30
Aroclor 1260	2.9		1.0			5.0E-04	0.3	33.3	Call and Harrell (1974)	0.1	1.0E-02
Aroclors 1254 and 1260	6.5						0.8	0.18	Dahlgren et al. (1982)	–	4.2
PCBs (sum)	46		2.1			5.0E-04	5.4	0.18	Dahlgren et al. (1982)	17	30

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] Hazard quotients equal to or greater than one are outlined
* Indicates that a mammalian TRV was used for screening due to lack of an avian one
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.117 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.114 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-29. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Belted Kingfisher (1992–1998)

Analyte	Fish Detected Value[a] (ng/kg dry)	Fish One-Half MDL (ng/kg dry)	NYSDEC EED (ng/kg BW/day)	WHO Avian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8		0.2	0.01	2.1E-03			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p* -dioxin	4.1		0.5	0.001	4.8E-04			
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.2	2.2E-02	0.01	2.2E-04			
1,2,3,4,7,8-Hexachlorodibenzofuran	19		2.2	0.1	0.2			
1,2,3,4,7,8-Hexachlorodibenzo-*p* -dioxin	3.0		0.3	0.05	1.7E-02			
1,2,3,6,7,8-Hexachlorodibenzofuran	6.4		0.8	0.1	7.5E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p* -dioxin	7.7		0.9	0.01	9.1E-03			
1,2,3,7,8,9-Hexachlorodibenzofuran		0.2	2.2E-02	0.1	2.2E-03			
1,2,3,7,8,9-Hexachlorodibenzo-*p* -dioxin		0.2	2.2E-02	0.1	2.2E-03			
1,2,3,7,8-Pentachlorodibenzofuran	22		2.5	0.1	0.3			
1,2,3,7,8-Pentachlorodibenzo-*p* -dioxin	18		2.1	1	2.1			
2,3,4,6,7,8-Hexachlorodibenzofuran	2.0		0.2	0.1	2.3E-02			
2,3,4,7,8-Pentachlorodibenzofuran	263		31	1	31			
2,3,7,8-Tetrachlorodibenzofuran	53		6.2	1	6.2			
2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	11		1.3	1	1.3			
Octachlorodibenzofuran		0.2	2.2E-02	0.0001	2.2E-06			
Octachlorodibenzo-*p* -dioxin	4.0		0.5	0.0001	4.7E-05			
					41	14	6.3	2.9

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] TRV is for 2,3,7,8-TCDD (Nosek et al. 1992)
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.117 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.114 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)

Table D-30. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Belted Kingfisher (1992–1998)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Aromatic Hydrocarbons								
Styrene	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Halogenated Alkanes								
Chloromethane	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Bromomethane	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Chloroethane	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
1,1-Dichloroethane	2.1E-02	1.7	5.0E-03	5.0E-03	17.2	Almut et al. (1976)	N/A	2.9E-04
Chloroform	2.1E-02	1.7	5.0E-03	5.0E-03	15	Palmer et al. (1979)*	N/A	3.3E-04
1,2-Dichloroethane	2.1E-02	1.7	5.0E-03	5.0E-03	17.2	Almut et al. (1976)	4.4E-04	2.9E-04
1,1,1-Trichloroethane	2.1E-02	1.7	5.0E-03	5.0E-03	1,000	Lane et al. (1982)*	N/A	5.0E-06
Carbon tetrachloride	2.1E-02	1.7	5.0E-03	5.0E-03	16	Alumot et al. (1976)*	N/A	3.1E-04
Bromodichloromethane	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
1,2-Dichloropropane	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Dibromochloromethane	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	2.1E-02	1.7	5.0E-03	5.0E-03	1,000	Lane et al. (1982)*	N/A	5.0E-06
Bromoform	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Halogenated Alkenes								
Vinyl chloride	2.1E-02	1.7	5.0E-03	5.0E-03	0.17	Feron et al. (1981)*	N/A	2.9E-02
1,1-Dichloroethene	2.1E-02	1.7	5.0E-03	5.0E-03	2.5	Quast et al. (1983)*	N/A	2.0E-03
1,2-Dichloroethene isomers (total)	2.1E-02	1.7	5.0E-03	9.0E-03	2.5	Quast et al. (1983)*	N/A	3.6E-03
cis-1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Trichloroethene	2.1E-02	1.7	5.0E-03	5.0E-03	0.7	Buben and O'Flaherty (1985)*	N/A	7.2E-03
Tetrachloroethene	2.1E-02	1.7	5.0E-03	5.0E-03	1.4	Buben and O'Flaherty (1985)*	N/A	3.6E-03
Ketones								
2-Hexanone	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds								
Carbon disulfide	2.1E-02	1.7	5.0E-03	5.0E-03	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.1			6.4E-03	1.6	Grant et al. (1977)*	N/A	4.0E-03
Phenols								
2-Methylphenol	0.1	21	5.0E-03	3.8E-02	219	Hornshaw et al. (1986)*	N/A	1.7E-04
2,4-Dimethylphenol	0.1	21	5.0E-03	3.8E-02	N/A	N/A	N/A	N/A
4,3-Methylphenol	0.1			1.3E-02	N/A	N/A	N/A	N/A
Substituted Phenols								
2-Chlorophenol	0.1	21	5.0E-03	3.8E-02	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	0.1	21	5.0E-03	3.8E-02	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	0.1	21	5.0E-03	3.8E-02	N/A	N/A	N/A	N/A

Table D-30. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
2,4,6-Trichlorophenol	0.1	21	5.0E-03	3.8E-02	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	0.1	50	1.3E-02	7.3E-02	N/A	N/A	N/A	N/A
Pentachlorophenol	0.1	50	1.3E-02	7.3E-02	0.24	Schwetz et al. (1978)	5.6E-03	0.3
2-Nitrophenol	0.1	21	5.0E-03	3.8E-02	N/A	N/A	N/A	N/A
4-Nitrophenol	0.1	50	1.3E-02	7.3E-02	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	0.1	50	1.3E-02	7.3E-02	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol		50	1.3E-02	6.0E-02	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol	0.1			1.3E-02	1	Hattula et al. (1981)*	N/A	1.3E-02
2,6-Dichlorophenol	0.1			1.3E-02	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane	0.3	21	5.0E-03	6.5E-02	0.05	Tugarinova et al. (1960)*	N/A	1.3
Hexachlorobutadiene	0.3	21	5.0E-03	6.5E-02	0.2	Kociba et al. (1977)*	N/A	0.3
Hexachlorocyclopentadiene	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	0.3	21	5.0E-03	6.4E-02	N/A	N/A	N/A	N/A
Phthalates								
Dimethylphthalate	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
Diethylphthalate	0.3	21	5.0E-03	6.5E-02	4,580	Lamb et al. (1987)*	N/A	1.4E-05
Butylbenzylphthalate	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
Di-*n* -octylphthalate	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds								
Isophorone	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
Benzyl alcohol	0.1			1.3E-02	N/A	N/A	N/A	N/A
Benzoic acid	0.1			1.3E-02	N/A	N/A	N/A	N/A
Organonitrogen Compounds								
Nitrobenzene	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylamine	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
2-Nitroaniline	0.8	50	1.3E-02	0.2	N/A	N/A	N/A	N/A
3-Nitroaniline	0.8	50	1.3E-02	0.2	N/A	N/A	N/A	N/A
4-Nitroaniline	0.8	50	1.3E-02	0.2	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
N -nitrosodiphenylamine	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
4-Chloroaniline	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.3	21	5.0E-03	6.5E-02	N/A	N/A	N/A	N/A
1-Naphthylamine	0.1			6.4E-03	N/A	N/A	N/A	N/A
1-Nitrosopiperidine	0.1			6.4E-03	N/A	N/A	N/A	N/A
2-Picoline	0.1			6.4E-03	N/A	N/A	N/A	N/A
4-Amino biphenyl	0.1			6.4E-03	N/A	N/A	N/A	N/A

Table D-30. (cont.)

Analyte		Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
	Aniline	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Azobenzene	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Benzidine	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Diphenylhydrazine	0.1			6.4E-03	N/A	N/A	N/A	N/A
	N-nitroso dibutylamine	0.1			6.4E-03	N/A	N/A	N/A	N/A
	p-Dimethylaminoazobenzene	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Pentachloronitrobenzene	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Phenacetin	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Pronamide	0.1			6.4E-03	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls									
	α-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	5.3E-03	0.02	Sauter and Steele (1972)	1.8E-03	0.3
	β-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	5.3E-03	0.02	Sauter and Steele (1972)	1.8E-03	0.3
	Aldrin	1.4E-02	7.5E-03	2.6E-05	1.7E-03	0.77	Mendenhall et al. (1983)	4.6E-03	2.2E-03
	γ-Chlordane	3.5E-03	7.5E-03	2.6E-05	4.2E-04	2.4	Stickel et al. (1983)	5.0E-04	1.7E-04
	β-Endosulfan	1.4E-02	1.5E-02	5.0E-05	1.7E-03	50	Abiola (1992)	7.09E-05	3.4E-05
	Heptachlor	1.4E-02	7.5E-03	2.6E-05	1.7E-03	0.05	Wagstaff et al. (1980)	2.3E-02	3.4E-02
	Methoxychlordane	0.5			6.1E-02	N/A	N/A	–	N/A
	Endrin aldehyde	1.4E-02	1.5E-02	5.0E-05	1.7E-03	0.01	Fleming et al. (1982)	0.4	0.2
	Endrin ketone	6.7E-03	1.5E-02	5.0E-05	8.1E-04	0.01	Fleming et al. (1982)	0.2	8.1E-02
	Methoxychlor	3.5E-02	7.5E-02	2.6E-04	4.2E-03	2	Hudson et al. (1984)	8.8E-02	2.1E-03
	Toxaphene	1.0	0.8	2.6E-03	0.1239	8	Kennedy et al. (1973)*	N/A	1.5E-02
	Photomirex	1.4E-02			2.9E-02	20	Hyde (1972)	N/A	1.5E-03
	Mirex and photomirex	1.6E-02			1.9E-03	20	Newell et al. (1987)	–	9.6E-05
	Aroclor 1221	2.1	0.295	1.1E-03	0.2	0.18	Dahlgren et al. (1982)		1.4
	Aroclor 1232	0.9	0.2	5.0E-04	2.6E-04	0.18	Dahlgren et al. (1982)	15	1.4E-03
Miscellaneous									
	3-Methylcholanthrene	0.1			6.4E-03	N/A	N/A	N/A	N/A
	7,12-Dimethylbenz[a]anthracene	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Dibenz[a,j]acridine	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Ethylmethanesulfonate	0.1			6.4E-03	N/A	N/A	N/A	N/A
	Methylmethanesulfonate	0.1			6.4E-03	N/A	N/A	N/A	N/A

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value

[a] Hazard quotients equal to or greater than one are outlined
* Indicates that a mammalian TRV was used for screening due to lack of an avian one
– Indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.117 kg/kg-day
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR
NYSDEC water ingestion rate (WIR) = 0.114 L/day
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-31. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Great Blue Heron (1992–1998)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum		19	5,610		0.1		6.04	110	Carriere et al. (1986)	4.9E-02	5.5E-02
Antimony	8.6		6.4		2.6E-02		0.4	1,400	Damron and Wilson (1975)	8.0E-04	2.9E-04
Arsenic		0.3	11.2		1.1E-03		2.4E-02	2.46	USFWS (1964)	2.4E-02	9.7E-03
Barium		0.5	890		7.7E-02		0.8	20.8	Johnson et al. (1960)	4.0E-02	4.1E-02
Beryllium		0.5	0.6			5.0E-04	2.2E-02	0.66	Schroeder and Mitchner (1975)*	N/A	3.3E-02
Cadmium	0.1		14		2.9E-03		1.9E-02	1.45	White and Finley (1978)	4.2E-02	1.3E-02
Calcium	4,532		349,000		181		538	N/A	N/A	N/A	N/A
Chromium	3.1		1,990		1.8E-02		2.0	1	Haseltine et al. (ND)	2.2	2.0
Cobalt		0.9	88			2.0E-03	0.1	5	Nation et al. (1983)*	N/A	2.5E-02
Copper	4.1		173		5.1E-02		0.3	47	Mehring et al. (1960)	2.0E-02	7.4E-03
Iron		23	34,200		0.4		33	N/A	N/A	N/A	N/A
Lead	1.2		251		1.8E-02		0.3	1.13	Edens et al. (1976)	0.3	0.3
Magnesium	1,154		17,300		27		70	N/A	N/A	N/A	N/A
Manganese	1.5		508		0.9		0.6	977	Laskey and Edens (1985)	7.0E-04	5.9E-04
Methylmercury	12				1.2E-05		0.6	0.0064	Heinz (1979)	130	87
Mercury	19		69		5.9E-05		1.0	0.45	Hill and Schaffner (1976)	19	2.1
Nickel		3.8	650		1.7E-02		0.8	77.4	Cain and Pafford (1981)	1.3E-02	1.0E-02
Potassium	16,366		699		6.8		754	N/A	N/A	N/A	N/A
Selenium	3.5		1.1			5.0E-04	0.2	0.4	Heinz et al. (1989)	1.1	0.4
Silver		0.9	5.1			1.0E-03	4.8E-02	18.1	Walker (1971)*	N/A	N/A
Sodium	2,891		3,520		276		149	N/A	N/A	N/A	N/A
Thallium		0.3	0.7			2.5E-03	1.4E-02	0.237	Hudson et al. (1984)	0.2	6.0E-02
Vanadium		0.9	101			2.0E-03	0.1	11.4	White and Dieter (1978)	1.7E-02	1.2E-02
Zinc	68		276		0.1		3.4	14.5	Stahl et al. (1990)	8.2E-02	0.2
Cyanide	4.1		35		0.2		0.2	68.7	Tewe and Maner (1981)*	N/A	3.3E-03
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene		2.1E-02	5.7			5.0E-03	6.4E-03	N/A	N/A	N/A	N/A
Toluene	2.1E-02		4.2			5.0E-03	5.1E-03	26	Nawrot and Staples (1979)*	N/A	1.9E-04
Ethylbenzene		2.1E-02	1.3			5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Xylene isomers (total)		2.1E-02	13			5.0E-03	1.3E-02	2.1	Marks et al. (1982)*	N/A	6.3E-03
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene		2.1E-02	43			5.0E-03	4.1E-02	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene		0.3	7.9		1.7E-03		2.3E-02	6	Jori et al. (1982)	8.3E-03	3.8E-03
1,3-Dichlorobenzene		0.3	6.8		1.2E-03		2.2E-02	6	Jori et al. (1982)	7.3E-03	3.6E-03
1,4-Dichlorobenzene	0.2		16		1.7E-03		1.5E-02	6	Jori et al. (1982)	8.9E-03	2.5E-03
Dichlorobenzenes (sum)	0.2		23		4.6E-03		2.8E-02	6	Jori et al. (1982)	–	4.7E-03
1,2,4-Trichlorobenzene		0.3	0.3		2.4E-03		1.6E-02	8	Cote et al. (1988)*	N/A	2.0E-03
1,2,3-Trichlorobenzene				1.4	2.7E-03		1.4E-03	8	Cote et al. (1988)*	–	1.7E-04
1,3,5-Trichlorobenzene			4.2		1.6E-03	5.0E-03	3.9E-03	8	Cote et al. (1988)*	–	4.9E-04
Trichlorobenzenes (sum)			4.2		6.7E-03		4.2E-03	8	Cote et al. (1988)*	–	5.2E-04
Halogenated Alkanes											
Methylene chloride		2.1E-02	0.1			5.0E-03	1.3E-03	5.85	NCA (1982)*	–	2.2E-04

Table D-31. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Ketones											
Acetone	0.8		1.1			5.0E-03	3.6E-02	10	USEPA (1986)*	N/A	3.6E-03
2-Butanone	3.4E-02		2.9			5.0E-03	4.5E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds											
Isopropanol	0.1		1.8E-02				2.5E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,3,4-Tetrachlorobenzene			0.7			5.0E-03	8.4E-04	N/A	N/A	–	N/A
Tetrachlorobenzene (mixed)			1.0				9.2E-04	1.6	Grant et al. (1977)*	–	5.8E-04
Pentachlorobenzene		0.1	0.3				2.8E-03	6	Jori et al. (1982)	1.2E-03	4.7E-04
Hexachlorobenzene	0.4		1.2			5.0E-03	2.2E-02	0.2	Vos et al. (1971)	7.0E-02	0.1
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	0.2		30			5.0E-03	4.1E-02	1	Hough et al. (1993)	N/A	4.1E-02
Acenaphthylene		0.3	6.3			5.0E-03	2.2E-02	1	Hough et al. (1993)	N/A	2.2E-02
Acenaphthene		0.3	15			5.0E-03	3.0E-02	1	Hough et al. (1993)	N/A	3.0E-02
Fluorene		0.3	7.2			5.0E-03	2.2E-02	1	Hough et al. (1993)	4.9E-02	2.2E-02
Phenanthrene		0.3	22			5.0E-03	3.6E-02	1	Hough et al. (1993)	6.2E-02	3.6E-02
Anthracene		0.3	8.9			5.0E-03	2.4E-02	1	Hough et al. (1993)	5.1E-02	2.4E-02
1-Methylnaphthalene	6.2		43				0.3	1	Hough et al. (1993)	N/A	0.3
2-Methylnaphthalene		0.3	3.7			5.0E-03	1.9E-02	1	Hough et al. (1993)	N/A	1.9E-02
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene		0.3	230			5.0E-03	0.2	1	Hough et al. (1993)	0.2	0.2
Pyrene		0.3	17			5.0E-03	3.1E-02	1	Hough et al. (1993)	5.8E-02	3.1E-02
Benz[a]anthracene		0.3	7.7			5.0E-03	2.3E-02	1	Hough et al. (1993)	5.0E-02	2.3E-02
Chrysene		0.3	7.5			5.0E-03	2.3E-02	1	Hough et al. (1993)	4.9E-02	2.3E-02
Benzo[b]fluoranthene		0.3	29			5.0E-03	4.2E-02	1	Hough et al. (1993)	N/A	4.2E-02
Benzo[k]fluoranthene		0.3	3.8			5.0E-03	1.9E-02	1	Hough et al. (1993)	N/A	1.9E-02
Benzo[a]pyrene		0.3	7.8			5.0E-03	2.3E-02	1	Hough et al. (1993)	5.0E-02	2.3E-02
Indeno[1,2,3-cd]pyrene		0.3	1.9			5.0E-03	1.8E-02	1	Hough et al. (1993)	4.4E-02	1.8E-02
Dibenz[a,h]anthracene		0.3	0.9			5.0E-03	1.7E-02	1	Hough et al. (1993)	4.4E-02	1.7E-02
Benzo[ghi]perylene		0.3	9.3			5.0E-03	2.4E-02	1	Hough et al. (1993)	5.1E-02	2.4E-02
Benzo[e]pyrene			3.4			5.0E-03	3.4E-03	1	Hough et al. (1993)	–	3.4E-03
Phenols											
Phenol		0.3	4.5E-02			5.0E-03	1.5E-02	6	Schafer et al. (1983)	2.4E-03	2.5E-03
4-Methylphenol			8.2E-02				7.5E-05	219	Hornshaw et al. (1986)*	–	3.4E-07
Phthalates											
Di-*n*-butyl phthalate	0.3			21		5.0E-03	3.2E-02	0.11	Peakall (1974)	6.4E-02	0.3
bis[2-Ethylhexyl]phthalate	9.7		3.0		1.0E-02		0.4	1.1	Peakall (1974)	1.0	0.4
Miscellaneous Oxygenated Compounds											
Dibenzofuran		0.3	1.3			5.0E-03	1.7E-02	N/A	N/A	N/A	N/A

Table D-31. (cont.)

Analyte		Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
	Carbazole		0.3	0.5			5.0E-03	1.6E-02	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls												
	δ-Hexachlorocyclohexane	1.1E-02			7.5E-03		2.6E-05	5.3E-04	0.02	Sauter and Steele (1972)	7.5E-04	2.7E-02
	γ-Hexachlorocyclohexane	34.4			7.5E-03		2.6E-05	1.6	0.02	Sauter and Steele (1972)	6.7E-04	79
	α-Chlordane	0.1		5.1E-03			2.6E-05	4.1E-03	2.4	Stickel et al. (1983)	7.3E-03	1.7E-03
	Chlordane isomers (sum)	0.3		5.1E-03			2.6E-05	1.6E-02	2.4	Stickel et al. (1983)	2.2E-02	6.6E-03
	α-Endosulfan	3.1E-02			7.5E-03		2.6E-05	1.4E-03	50	Abiola (1992)	4.5E-02	2.8E-05
	Endosulfan sulfate	1.8E-02			1.5E-02		5.0E-05	8.3E-04	11.1	Abiola (1992)	2.6E-02	7.4E-05
	Dieldrin	0.1			1.5E-02		5.0E-05	8.3E-04	0.077	Mendenhall et al. (1983)	2.3	1.1E-02
	Aldrin and dieldrin (sum)	0.1						3.7E-03	0.77	Mendenhall et al. (1983)	0.2	4.8E-03
	Endrin	0.1			1.5E-02		5.0E-05	6.7E-03	0.01	Fleming et al. (1982)	0.5	0.7
	Heptachlor epoxide	4.6E-02			7.5E-03		2.6E-05	2.1E-03	0.005	WHO (1984)	2.9E-02	0.4
	Heptachlor and heptachlor epoxide (sum)	4.6E-02						2.1E-03	0.005	WHO (1984)	3.6E-02	0.4
	4,4'-DDD	0.5		4.7E-02			5.0E-05	2.1E-02	0.0028	Anderson et al. (1975)	0.3	7.6
	4,4'-DDE	1.1			1.5E-02		5.0E-05	5.0E-02	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	5.6	1.3
	4,4'-DDT	0.3			1.5E-02		5.0E-05	1.3E-02	0.0028	Anderson et al. (1975)	1.2	4.6
	DDT and metabolites (sum)	2.7		4.7E-02				0.1	0.0028	Anderson et al. (1975)	34	44
	Mirex	1.2E-02						5.3E-04	20	Newell et al. (1987)	–	2.7E-05
	Aroclor 1016	6.1		0.2			5.0E-04	0.3	0.18	Dahlgren et al. (1982)	3.6	1.6
	Aroclor 1242	6.7			0.2		5.0E-04	0.3	0.41	McLane and Hughes (1980)	0.3	0.8
	Aroclor 1248	10		1.1			5.0E-04	0.5	0.18	Dahlgren et al. (1982)	10	2.6
	Aroclor 1254	46		0.1			5.0E-04	2.1	0.18	Dahlgren et al. (1982)	12	12
	Aroclor 1260	2.9		1.0			5.0E-04	0.1	33.3	Call and Harrell (1974)	2.4E-02	4.1E-03
	Aroclors 1254 and 1260	6.5						0.3	0.18	Dahlgren et al. (1982)	–	1.7
	PCBs (sum)	46		2.1			5.0E-04	2.1	0.18	Dahlgren et al. (1982)	6.3	12

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] Hazard quotients equal to or greater than one are outlined
* Indicates that a mammalian TRV was used for screening due to lack of an avian one
– Indicates that a compound was not included in the Honeywell table.
NYSDEC prey (food) ingestion rate (FIR) = 0.046 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 2.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.048 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w

Table D-32. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Great Blue Heron (1992–1998)

Analyte	Fish Detected Value[a] (ng/kg dry)	Fish One-Half MDL (ng/kg dry)	NYSDEC EED (ng/kg BW/day)	WHO Avian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8		0.1	0.01	8.2E-04			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	4.1		0.2	0.001	1.9E-04			
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.2	8.6E-03	0.01	8.6E-05			
1,2,3,4,7,8-Hexachlorodibenzofuran	19		0.9	0.1	0.1			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	3.0		0.1	0.05	6.8E-03			
1,2,3,6,7,8-Hexachlorodibenzofuran	6.4		0.3	0.1	3.0E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	7.7		0.4	0.01	3.6E-03			
1,2,3,7,8,9-Hexachlorodibenzofuran		0.2	8.6E-03	0.1	8.6E-04			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin		0.2	8.6E-03	0.1	8.6E-04			
1,2,3,7,8-Pentachlorodibenzofuran	22		1.0	0.1	0.1			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	18		0.8	1	0.8			
2,3,4,6,7,8-Hexachlorodibenzofuran	2.0		0.1	0.1	9.1E-03			
2,3,4,7,8-Pentachlorodibenzofuran	263		12.1	1	12.117			
2,3,7,8-Tetrachlorodibenzofuran	53		2.4	1	2.4			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	11		0.5	1	0.5			
Octachlorodibenzofuran		0.2	8.6E-03	0.0001	8.6E-07			
Octachlorodibenzo-*p*-dioxin	4.0		0.2	0.0001	1.8E-05			
					16	14	2.4	0.8

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] TRV is for 2,3,7,8-TCDD (Nosek et al. 1992).
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.046 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 2.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.048 L/day (based on Calder and Braun, 1983)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-33. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Great Blue Heron (1992–1998)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Aromatic Hydrocarbons								
Styrene	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Halogenated Alkanes								
Chloromethane	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Bromomethane	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Chloroethane	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
1,1-Dichloroethane	2.1E-02	1.7	5.0E-03	2.8E-03	17.2	Almut et al. (1976)	N/A	1.6E-04
Chloroform	2.1E-02	1.7	5.0E-03	2.8E-03	15	Palmer et al. (1979)*	N/A	1.8E-04
1,2-Dichloroethane	2.1E-02	1.7	5.0E-03	2.8E-03	17.2	Almut et al. (1976)	3.2E-04	1.6E-04
1,1,1-Trichloroethane	2.1E-02	1.7	5.0E-03	2.8E-03	1,000	Lane et al. (1982)*	N/A	2.8E-06
Carbon tetrachloride	2.1E-02	1.7	5.0E-03	2.8E-03	16	Alumot et al. (1976)*	N/A	1.7E-04
Bromodichloromethane	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
1,2-Dichloropropane	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Dibromochloromethane	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	2.1E-02	1.7	5.0E-03	2.8E-03	1,000	Lane et al. (1982)*	N/A	2.8E-06
Bromoform	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Halogenated Alkenes								
Vinyl chloride	2.1E-02	1.7	5.0E-03	2.8E-03	0.17	Feron et al. (1981)*	N/A	1.6E-02
1,1-Dichloroethene	2.1E-02	1.7	5.0E-03	2.8E-03	2.5	Quast et al. (1983)*	N/A	1.1E-03
1,2-Dichloroethene isomers (total)	2.1E-02	1.7	5.0E-03	4.3E-03	2.5	Quast et al. (1983)*	N/A	1.7E-03
cis -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
trans -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Trichloroethene	2.1E-02	1.7	5.0E-03	2.8E-03	0.7	Buben and O'Flaherty (1985)*	N/A	4.0E-03
Tetrachloroethene	2.1E-02	1.7	5.0E-03	2.8E-03	1.4	Buben and O'Flaherty (1985)*	N/A	2.0E-03
Ketones								
2-Hexanone	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds								
Carbon disulfide	2.1E-02	1.7	5.0E-03	2.8E-03	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.1			2.5E-03	1.6	Grant et al. (1977)*	N/A	1.6E-03
Phenols								
2-Methylphenol	0.1	21	5.0E-03	2.5E-02	219	Hornshaw et al. (1986)*	N/A	1.1E-04
2,4-Dimethylphenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
4,3-Methylphenol	0.1			5.1E-03	N/A	N/A	N/A	N/A
Substituted Phenols								
2-Chlorophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A

Table D-33. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
2,4,6-Trichlorophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	0.1	50	1.3E-02	5.2E-02	N/A	N/A	N/A	N/A
Pentachlorophenol	0.1	50	1.3E-02	5.2E-02	0.24	Schwetz et al. (1978)	1.5E-02	0.2
2-Nitrophenol	0.1	21	5.0E-03	2.5E-02	N/A	N/A	N/A	N/A
4-Nitrophenol	0.1	50	1.3E-02	5.2E-02	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	0.1	50	1.3E-02	5.2E-02	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol		50	1.3E-02	4.7E-02	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol	0.1			5.1E-03	1	Hattula et al. (1981)*	N/A	5.1E-03
2,6-Dichlorophenol	0.1			5.1E-03	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane	0.3	21	5.0E-03	3.5E-02	0.05	Tugarinova et al. (1960)*	N/A	0.7
Hexachlorobutadiene	0.3	21	5.0E-03	3.5E-02	0.2	Kociba et al. (1977)*	N/A	0.2
Hexachlorocyclopentadiene	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
Phthalates								
Dimethylphthalate	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
Diethylphthalate	0.3	21	5.0E-03	3.5E-02	4,580	Lamb et al. (1987)*	N/A	7.7E-06
Butylbenzylphthalate	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
Di-*n* -octylphthalate	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds								
Isophorone	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
Benzyl alcohol	0.1			5.1E-03	N/A	N/A	N/A	N/A
Benzoic acid	0.1			5.1E-03	N/A	N/A	N/A	N/A
Organonitrogen Compounds								
Nitrobenzene	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylamine	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
2-Nitroaniline	0.8	50	1.3E-02	8.7E-02	N/A	N/A	N/A	N/A
3-Nitroaniline	0.8	50	1.3E-02	8.7E-02	N/A	N/A	N/A	N/A
4-Nitroaniline	0.8	50	1.3E-02	8.7E-02	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
N -nitrosodiphenylamine	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
4-Chloroaniline	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.3	21	5.0E-03	3.5E-02	N/A	N/A	N/A	N/A
1-Naphthylamine	0.1			2.5E-03	N/A	N/A	N/A	N/A
1-Nitrosopiperidine	0.1			2.5E-03	N/A	N/A	N/A	N/A
2-Picoline	0.1			2.5E-03	N/A	N/A	N/A	N/A
4-Amino biphenyl	0.1			2.5E-03	N/A	N/A	N/A	N/A

Table D-33. (cont.)

Analyte		Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
	Aniline	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Azobenzene	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Benzidine	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Diphenylhydrazine	0.1			2.5E-03	N/A	N/A	N/A	N/A
	N -nitroso dibutylamine	0.1			2.5E-03	N/A	N/A	N/A	N/A
	p -Dimethylaminoazobenzene	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Pentachloronitrobenzene	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Phenacetin	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Pronamide	0.1			2.5E-03	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls									
	α-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	2.1E-03	0.02	Sauter and Steele (1972)	6.7E-04	0.1
	β-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	2.1E-03	0.02	Sauter and Steele (1972)	6.7E-04	0.1
	Aldrin	1.4E-02	7.5E-03	2.6E-05	6.7E-04	0.77	Mendenhall et al. (1983)	1.7E-03	8.8E-04
	γ-Chlordane	3.5E-03	7.5E-03	2.6E-05	1.7E-04	2.4	Stickel et al. (1983)	1.9E-04	7.0E-05
	β-Endosulfan	1.4E-02	1.5E-02	5.0E-05	6.8E-04	50	Abiola (1992)	2.7E-05	1.4E-05
	Heptachlor	1.4E-02	7.5E-03	2.6E-05	6.7E-04	0.05	Wagstaff et al. (1980)	–	1.3E-02
	Methoxychlordane	0.5			2.4E-02	N/A	N/A	–	N/A
	Endrin aldehyde	1.4E-02	1.5E-02	5.0E-05	6.8E-04	0.01	Fleming et al. (1982)	0.1	6.8E-02
	Endrin ketone	6.7E-03	1.5E-02	5.0E-05	3.3E-04	0.01	Fleming et al. (1982)	9.1E-02	3.3E-02
	Methoxychlor	3.5E-02	7.5E-02	2.6E-04	1.7E-03	2	Hudson et al. (1984)	3.3E-02	8.4E-04
	Toxaphene	1.0	0.8	2.6E-03	4.9E-02	8	Kennedy et al. (1973)*	N/A	6.1E-03
	Photomirex	1.4E-02			1.2E-02	20	Hyde (1972)	N/A	N/A
	Mirex and photomirex	1.6E-02			7.6E-04	20	Newell et al. (1987)	–	N/A
	Aroclor 1221	2.1	0.3	1.1E-03	0.1	0.18	Dahlgren et al. (1982)	–	0.5
	Aroclor 1232	0.9	0.2	5.0E-04	1.8E-04	0.18	Dahlgren et al. (1982)	0.726	1.0E-03
Miscellaneous									
	3-Methylcholanthrene	0.1			2.5E-03	N/A	N/A	N/A	N/A
	7,12-Dimethylbenz[a]anthracene	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Dibenz[a,j]acridine	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Ethylmethanesulfonate	0.1			2.5E-03	N/A	N/A	N/A	N/A
	Methylmethanesulfonate	0.1			2.5E-03	N/A	N/A	N/A	N/A

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value

[a] Hazard quotients equal to or greater than one are outlined
* indicates that a mammalian TRV was used for screening due to lack of an avian one
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.046 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 2.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.048 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-34. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Osprey (1992–1998)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum		19	5,610		0.1		1.0	110	Carriere et al. (1986)	2.2E-02	9.4E-03
Antimony	8.6		6.4		2.6E-02		0.5	1,400	Damron and Wilson (1975)	8.7E-04	3.3E-04
Arsenic		0.3	11.2		1.1E-03		1.6E-02	2.46	USFWS (1964)	2.2E-02	6.5E-03
Barium		0.5	890		7.7E-02		2.9E-02	20.8	Johnson et al. (1960)	3.0E-03	1.4E-03
Beryllium		0.5	0.6			5.0E-04	2.5E-02	0.66	Schroeder and Mitchner (1975)*	N/A	3.8E-02
Cadmium	0.1		14		2.9E-03		6.8E-03	1.45	White and Finley (1978)	4.1E-02	4.7E-03
Calcium	4,532		349,000		181		255	N/A	N/A	N/A	N/A
Chromium	3.1		1,990		1.8E-02		0.2	1	Haseltine et al. (nd)	0.5	0.2
Cobalt		0.9	88			2.0E-03	5.1E-02	5	Nation et al. (1983)*	N/A	1.0E-02
Copper	4.1		173		5.1E-02		0.2	47	Mehring et al. (1960)	1.9E-02	4.7E-03
Iron		23	34,200		0.4		1.2	N/A	N/A	N/A	N/A
Lead	1.2		251		1.8E-02		6.5E-02	1.13	Edens et al. (1976)	0.1	5.7E-02
Magnesium	1,154		17,300		27		64	N/A	N/A	N/A	N/A
Manganese	1.5		508		0.9		0.1	977	Laskey and Edens (1985)	2.6E-04	1.3E-04
Methylmercury	12				1.2E-05		0.7	0.0064	Heinz (1979)	142	102
Mercury	19		69		5.9E-05		1.0	0.45	Hill and Schaffner (1976)	21	2.3
Nickel		3.8	650		1.7E-02		0.2	77.4	Cain and Pafford (1981)	6.0E-03	2.7E-03
Potassium	16,366		699		6.8		884	N/A	N/A	N/A	N/A
Selenium	3.5		1.1			5.0E-04	0.2	0.4	Heinz et al. (1989)	1.2	0.5
Silver		0.9	5.1			1.0E-03	5.1E-02	18.1	Walker (1971)*	N/A	2.8E-03
Sodium	2,891		3,520		276		171	N/A	N/A	N/A	N/A
Thallium		0.3	0.7			2.5E-03	1.6E-02	0.237	Hudson et al. (1984)	0.3	6.8E-02
Vanadium		0.9	101			2.0E-03	5.1E-02	11.4	White and Dieter (1978)	1.0E-02	4.4E-03
Zinc	68		276		0.1		3.7	14.5	Stahl et al. (1990)	8.7E-02	0.3
Cyanide	4.1		35		0.2		0.2	68.7	Tewe and Maner (1981)*	N/A	3.3E-03
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene		2.1E-02	5.7			5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Toluene	2.1E-02		4.2			5.0E-03	1.4E-03	26	Nawrot and Staples (1979)*	N/A	5.4E-05
Ethylbenzene		2.1E-02	1.3			5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Xylene isomers (total)		2.1E-02	13			5.0E-03	1.4E-03	2.1	Marks et al. (1982)*	N/A	6.7E-04
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene		2.1E-02	43			5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene		0.3	7.9		1.7E-03		1.8E-02	6	Jori et al. (1982)	7.8E-03	3.1E-03
1,3-Dichlorobenzene		0.3	6.8		1.2E-03		1.8E-02	6	Jori et al. (1982)	7.8E-03	3.1E-03
1,4-Dichlorobenzene	0.2		16		1.7E-03		9.4E-05	6	Jori et al. (1982)	7.9E-03	1.6E-05
Dichlorobenzenes (sum)	0.2		23		4.6E-03		2.5E-04	6	Jori et al. (1982)	–	4.2E-05
1,2,4-Trichlorobenzene		0.3	0.3		2.4E-03		1.8E-02	8	Cote et al. (1988)*	N/A	2.3E-03
1,2,3-Trichlorobenzene				1.4	2.7E-03		1.5E-04	8	Cote et al. (1988)*	–	1.9E-05
1,3,5-Trichlorobenzene			4.2		1.6E-03	5.0E-03	8.8E-05	8	Cote et al. (1988)*	–	1.1E-05
Trichlorobenzenes (sum)			4.2		6.7E-03		3.7E-04	8	Cote et al. (1988)*	–	4.6E-05
Halogenated Alkanes											
Methylene chloride		2.1E-02	0.1			5.0E-03	1.4E-03	5.85	NCA (1982)*	–	2.4E-04

Table D-34. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Ketones											
Acetone	0.8		1.1			5.0E-03	4.1E-02	10	USEPA (1986)*	N/A	4.1E-03
2-Butanone	3.4E-02		2.9			5.0E-03	2.1E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds											
Isopropanol	0.1		1.8E-02				2.9E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,3,4-Tetrachlorobenzene			0.7			5.0E-03	2.8E-04	N/A	N/A	–	N/A
Pentachlorobenzene		0.1	0.3				3.0E-03	6	Jori et al. (1982)	1.3E-03	5.0E-04
Hexachlorobenzene	0.4		1.2			5.0E-03	2.4E-02	0.2	Vos et al. (1971)	7.4E-02	0.1
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	0.2		30			5.0E-03	1.5E-02	1	Hough et al. (1993)	N/A	1.5E-02
Acenaphthylene		0.3	6.3			5.0E-03	1.9E-02	1	Hough et al. (1993)	N/A	1.9E-02
Acenaphthene		0.3	15			5.0E-03	1.9E-02	1	Hough et al. (1993)	N/A	1.9E-02
Fluorene		0.3	7.2			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Phenanthrene		0.3	22			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Anthracene		0.3	8.9			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
1-Methylnaphthalene	6.2		43				0.3	1	Hough et al. (1993)		0.3
2-Methylnaphthalene		0.3	3.7			5.0E-03	1.9E-02	1	Hough et al. (1993)	N/A	1.9E-02
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene		0.3	230			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Pyrene		0.3	17			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Benz[a]anthracene		0.3	7.7			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Chrysene		0.3	7.5			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Benzo[b]fluoranthene		0.3	29			5.0E-03	1.9E-02	1	Hough et al. (1993)	N/A	1.9E-02
Benzo[k]fluoranthene		0.3	3.8			5.0E-03	1.9E-02	1	Hough et al. (1993)	N/A	1.9E-02
Benzo[a]pyrene		0.3	7.8			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Indeno[1,2,3-cd]pyrene		0.3	1.9			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Dibenz[a,h]anthracene		0.3	0.9			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Benzo[ghi]perylene		0.3	9.3			5.0E-03	1.9E-02	1	Hough et al. (1993)	4.7E-02	1.9E-02
Benzo[e]pyrene			3.4			5.0E-03	2.8E-04	1	Hough et al. (1993)	–	2.8E-04
Phenols											
Phenol		0.3	4.5E-02			5.0E-03	1.8E-02	6	Schafer et al. (1983)	2.7E-03	3.0E-03
Phthalates											
Di-*n*-butyl phthalate	0.3			21		5.0E-03	1.5E-02	0.11	Peakall (1974)	3.8E-02	0.1
bis[2-Ethylhexyl]phthalate	9.7		3.0		1.0E-02		0.5	1.1	Peakall (1974)	1.1	0.5
Miscellaneous Oxygenated Compounds											
Dibenzofuran		0.3	1.3			5.0E-03	1.9E-02	N/A	N/A	N/A	N/A

Table D-34. (cont.)

Analyte		Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
	Carbazole		0.3	0.5			5.0E-03	1.8E-02	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls												
	δ-Hexachlorocyclohexane	1.1E-02			7.5E-03		2.6E-05	6.2E-04	0.02	Sauter and Steele (1972)	8.1E-04	3.1E-02
	γ-Hexachlorocyclohexane	34			7.5E-03		2.6E-05	1.9	0.02	Sauter and Steele (1972)	6.7E-04	93
	α-Chlordane	0.1		5.1E-03			2.6E-05	4.8E-03	2.4	Stickel et al. (1983)	8.0E-03	2.0E-03
	Chlordane isomers (sum)	0.3		5.1E-03			2.6E-05	1.9E-02	2.4	Stickel et al. (1983)	2.4E-02	7.7E-03
	α-Endosulfan	3.1E-02			7.5E-03		2.6E-05	1.7E-03	50	Abiola (1992)	4.5E-02	3.3E-05
	Endosulfan sulfate	1.8E-02			1.5E-02		5.0E-05	9.5E-04	11.1	Abiola (1992)	2.6E-02	8.6E-05
	Dieldrin	0.1			1.5E-02		5.0E-05	9.5E-04	0.077	Mendenhall et al. (1983)	2.3	1.2E-02
	Aldrin and dieldrin (sum)	0.1						4.3E-03	0.77	Mendenhall et al. (1983)	0.2	5.6E-03
	Endrin	0.1			1.5E-02		5.0E-05	7.8E-03	0.01	Fleming et al. (1982)	0.5	0.8
	Heptachlor epoxide	4.6E-02			7.5E-03		2.6E-05	2.5E-03	0.005	WHO (1984)	2.9E-02	0.5
	Heptachlor and heptachlor epoxide (sum)	4.6E-02						2.5E-03	0.005	WHO (1984)	3.6E-02	0.5
	4,4'-DDD	0.5		4.7E-02			5.0E-05	2.5E-02	0.0028	Anderson et al. (1975)	0.3	8.9
	4,4'-DDE	1.1			1.5E-02		5.0E-05	5.8E-02	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	6.1	1.5
	4,4'-DDT	0.3			1.5E-02		5.0E-05	1.5E-02	0.0028	Anderson et al. (1975)	1.3	5.3
	DDT and metabolites (sum)	2.7		4.7E-02				0.1	0.0028	Anderson et al. (1975)	37	52
	Mirex	1.2E-02						6.3E-04	20	Newell et al. (1987)		3.1E-05
	Aroclor 1016	6.1		0.2			5.0E-04	0.3	0.18	Dahlgren et al. (1982)	3.9	1.8
	Aroclor 1242	6.7			0.2		5.0E-04	0.4	0.41	McLane and Hughes (1980)	0.3	0.9
	Aroclor 1248	10		1.1			5.0E-04	0.5	0.18	Dahlgren et al. (1982)	11	3.0
	Aroclor 1254	46		0.1			5.0E-04	2.5	0.18	Dahlgren et al. (1982)	13	14
	Aroclor 1260	2.9		1.0			5.0E-04	0.2	33.3	Call and Harrell (1974)	2.6E-02	4.7E-03
	Aroclors 1254 and 1260	6.5						0.4	0.18	Dahlgren et al. (1982)	–	1.9
	PCBs (sum)	46		2.1			5.0E-04	2.5	0.18	Dahlgren et al. (1982)	6.9	14

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] Hazard quotients equal to or greater than one are outlined.
* Indicates that a mammalian TRV was used for screening due to lack of an avian one
– Indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.054 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 0.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.055 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)

Table D-35. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Osprey (1992–1998)

Analyte	Fish Detected Value[a] (ng/kg dry)	Fish One-Half MDL (ng/kg dry)	NYSDEC EED (ng/kg BW/day)	WHO Avian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8		0.1	0.01	9.7E-04			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	4.1		0.2	0.001	2.2E-04			
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.2	1.0E-02	0.01	1.0E-04			
1,2,3,4,7,8-Hexachlorodibenzofuran	19		1.0	0.1	0.1			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	3.0		0.2	0.05	8.0E-03			
1,2,3,6,7,8-Hexachlorodibenzofuran	6.4		0.3	0.1	3.5E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	7.7		0.4	0.01	4.2E-03			
1,2,3,7,8,9-Hexachlorodibenzofuran		0.2	1.0E-02	0.1	1.0E-03			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin		0.2	1.0E-02	0.1	1.0E-03			
1,2,3,7,8-Pentachlorodibenzofuran	22		1.2	0.1	0.1			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	18		1.0	1	1.0			
2,3,4,6,7,8-Hexachlorodibenzofuran	2.0		0.1	0.1	1.1E-02			
2,3,4,7,8-Pentachlorodibenzofuran	263		14.2	1	14.225			
2,3,7,8-Tetrachlorodibenzofuran	53		2.9	1	2.9			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	11		0.6	1	0.6			
Octachlorodibenzofuran		0.2	1.0E-02	0.0001	1.0E-06			
Octachlorodibenzo-*p*-dioxin	4.0		0.2	0.0001	2.1E-05			
					19	14	2.6	1.4

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
Osprey food ingestion rate was assumed to be 0.048 kg/kg-day on a dry weight basis (Nagy, 1987; estimation)
Osprey sediment ingestion rate was assumed to be 0 percent of the food ingestion rate
Osprey surface water ingestion rate was assumed to be 0.049 kg/kg-day (Calder and Braun, 1983; estimation)
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] Toxicity reference value (TRV) is for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.054 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 0.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.055 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-36. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Osprey (1992–1998)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Aromatic Hydrocarbons								
Styrene	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Halogenated Alkanes								
Chloromethane	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Bromomethane	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Chloroethane	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
1,1-Dichloroethane	2.1E-02	1.7	5.0E-03	1.4E-03	17.2	Almut et al. (1976)	N/A	8.2E-05
Chloroform	2.1E-02	1.7	5.0E-03	1.4E-03	15	Palmer et al. (1979)*	N/A	9.4E-05
1,2-Dichloroethane	2.1E-02	1.7	5.0E-03	1.4E-03	17.2	Almut et al. (1976)	1.8E-04	8.2E-05
1,1,1-Trichloroethane	2.1E-02	1.7	5.0E-03	1.4E-03	1,000	Lane et al. (1982)*	N/A	1.4E-06
Carbon tetrachloride	2.1E-02	1.7	5.0E-03	1.4E-03	16	Alumot et al. (1976)*	N/A	8.8E-05
Bromodichloromethane	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
1,2-Dichloropropane	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Dibromochloromethane	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	2.1E-02	1.7	5.0E-03	1.4E-03	1,000	Lane et al. (1982)*	N/A	1.4E-06
Bromoform	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Halogenated Alkenes								
Vinyl chloride	2.1E-02	1.7	5.0E-03	1.4E-03	0.17	Feron et al. (1981)*	N/A	8.3E-03
1,1-Dichloroethene	2.1E-02	1.7	5.0E-03	1.4E-03	2.5	Quast et al. (1983)*	N/A	5.6E-04
1,2-Dichloroethene isomers (total)	2.1E-02	1.7	5.0E-03	3.2E-03	2.5	Quast et al. (1983)*	N/A	1.3E-03
cis -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
trans -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Trichloroethene	2.1E-02	1.7	5.0E-03	1.4E-03	0.7	Buben and O'Flaherty (1985)*	N/A	2.0E-03
Tetrachloroethene	2.1E-02	1.7	5.0E-03	1.4E-03	1.4	Buben and O'Flaherty (1985)*	N/A	1.0E-03
Ketones								
2-Hexanone	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds								
Carbon disulfide	2.1E-02	1.7	5.0E-03	1.4E-03	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.1			3.0E-03	1.6	Grant et al. (1977)*	N/A	1.9E-03
Phenols								
2-Methylphenol	0.1	21	5.0E-03	6.2E-03	219	Hornshaw et al. (1986)*	N/A	2.8E-05
2,4-Dimethylphenol	0.1	21	5.0E-03	6.2E-03	N/A	N/A	N/A	N/A
4,3-Methylphenol	0.1			5.9E-03	N/A	N/A	N/A	N/A
Substituted Phenols		21	5.0E-03	6.2E-03	N/A	N/A	N/A	N/A
2-Chlorophenol	0.1	21	5.0E-03	6.2E-03	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	0.1	21	5.0E-03	6.2E-03	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	0.1	21	5.0E-03	6.2E-03	N/A	N/A	N/A	N/A

Table D-36. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
2,4,6-Trichlorophenol	0.1	50	1.3E-02	6.6E-03	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	0.1	50	1.3E-02	6.6E-03	0.24	Schwetz et al. (1978)	2.3E-03	2.8E-02
Pentachlorophenol	0.1	21	5.0E-03	6.2E-03	N/A	N/A	N/A	N/A
2-Nitrophenol	0.1	50	1.3E-02	6.6E-03	N/A	N/A	N/A	N/A
4-Nitrophenol	0.1							
2,4-Dinitrophenol	0.1	50	1.3E-02	6.6E-03	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol		50	1.3E-02	6.9E-04	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol	0.1			5.9E-03	1	Hattula et al. (1981)*	N/A	5.9E-03
2,6-Dichlorophenol	0.1			5.9E-03	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane	0.3	21	5.0E-03	1.9E-02	0.05	Tugarinova et al. (1960)*	N/A	0.4
Hexachlorobutadiene	0.3	21	5.0E-03	1.9E-02	0.2	Kociba et al. (1977)*	N/A	9.3E-02
Hexachlorocyclopentadiene	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	0.3	21	5.0E-03	1.8E-02	N/A	N/A	N/A	N/A
Phthalates								
Dimethylphthalate	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
Diethylphthalate	0.3	21	5.0E-03	1.9E-02	4,580	Lamb et al. (1987)*	N/A	4.1E-06
Butylbenzylphthalate	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
Di-*n*-octylphthalate	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds								
Isophorone	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
Benzyl alcohol	0.1			5.9E-03	N/A	N/A	N/A	N/A
Benzoic acid	0.1			5.9E-03	N/A	N/A	N/A	N/A
Organonitrogen Compounds								
Nitrobenzene	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
N-nitroso-di-*n*-propylamine	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
2-Nitroaniline	0.8	50	1.3E-02	4.8E-02	N/A	N/A	N/A	N/A
3-Nitroaniline	0.8	50	1.3E-02	4.8E-02	N/A	N/A	N/A	N/A
4-Nitroaniline	0.8	50	1.3E-02	4.8E-02	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
4-Chloroaniline	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.3	21	5.0E-03	1.9E-02	N/A	N/A	N/A	N/A
1-Naphthylamine	0.1			3.0E-03	N/A	N/A	N/A	N/A
1-Nitrosopiperidine	0.1			3.0E-03	N/A	N/A	N/A	N/A
2-Picoline	0.1			3.0E-03	N/A	N/A	N/A	N/A
4-Amino biphenyl	0.1			3.0E-03	N/A	N/A	N/A	N/A

Table D-36. (cont.)

Analyte		Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
	Aniline	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Azobenzene	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Benzidine	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Diphenylhydrazine	0.1			3.0E-03	N/A	N/A	N/A	N/A
	N -nitroso dibutylamine	0.1			3.0E-03	N/A	N/A	N/A	N/A
	p -Dimethylaminoazobenzene	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Pentachloronitrobenzene	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Phenacetin	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Pronamide	0.1			3.0E-03	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls									
	α-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	2.4E-03	0.02	Sauter and Steele (1972)	7.3E-04	0.1
	β-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	2.4E-03	0.02	Sauter and Steele (1972)	7.3E-04	0.1
	Aldrin	1.4E-02	7.5E-03	2.6E-05	7.8E-04	0.77	Mendenhall et al. (1983)	1.9E-03	1.0E-03
	γ-Chlordane	3.5E-03	7.5E-03	2.6E-05	1.9E-04	2.4	Stickel et al. (1983)	2.1E-04	7.9E-05
	β-Endosulfan	1.4E-02	1.5E-02	5.0E-05	7.9E-04	50	Abiola (1992)	2.91E-05	1.6E-05
	Heptachlor	1.4E-02	7.5E-03	2.6E-05	7.8E-04	0.05	Wagstaff et al. (1980)	–	1.6E-02
	Methoxychlordane	0.5	1.5E-02	5.0E-05	7.9E-04	0.01	Fleming et al. (1982)	0.1	7.9E-02
	Endrin aldehyde	1.4E-02	1.5E-02	5.0E-05	3.7E-04	0.01	Fleming et al. (1982)	9.6E-02	3.7E-02
	Endrin ketone	6.7E-03	1.5E-02	5.0E-05	3.7E-04	0.01	Fleming et al. (1982)	9.1E-02	3.7E-02
	Methoxychlor	3.5E-02	7.5E-02	2.6E-04	1.9E-03	2	Hudson et al. (1984)	3.6E-02	9.4E-04
	Toxaphene	1.0	0.8	2.6E-03	5.7E-02	8	Kennedy et al. (1973)*	N/A	7.1E-03
	Photomirex	1.4E-02			1.4E-02	20	Hyde (1972)	N/A	6.8E-04
	Mirex and photomirex	1.6E-02			8.9E-04	20	Newell et al. (1987)	–	4.4E-05
	Aroclor 1221	2.1	0.3	1.1E-03	0.1	0.18	Dahlgren et al. (1982)	–	0.6
	Aroclor 1232	0.9	0.2	5.0E-04	2.8E-05	0.18	Dahlgren et al. (1982)	0.791	1.5E-04
Miscellaneous									
	3-Methylcholanthrene	0.1			2.9E-03	N/A	N/A	N/A	N/A
	7,12-Dimethylbenz[a]anthracene	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Dibenz[a,j]acridine	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Ethylmethanesulfonate	0.1			3.0E-03	N/A	N/A	N/A	N/A
	Methylmethanesulfonate	0.1			3.0E-03	N/A	N/A	N/A	N/A

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value

[a] Hazard quotients equal to or greater than one are outlined
* Indicates that a mammalian toxicity reference value (TRV) was used for screening due to lack of an avian one
– Indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.054 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 0.0% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.055 L/day (based on Calder and Braun, 1983)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-37. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Mallard (1992–1998)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Total Metals and Cyanide												
Aluminum	5,610		0.588	4,783		0.1		288	110	Carriere et al. (1986)	0.1	2.6
Antimony	6.4		0.675	4.32		2.6E-02		0.3	1,400	Damron and Wilson (1975)	9.4E-05	1.9E-04
Arsenic	11		0.675	7.6		1.1E-03		0.5	2.46	USFWS (1964)	7.4E-02	0.2
Barium	890		9.24	8,224		7.7E-02		479	20.8	Johnson et al. (1960)	0.4	23
Beryllium	0.6		0.675	0.405			5.0E-04	2.5E-02	0.66	Schroeder and Mitchner (1975)*	N/A	3.7E-02
Cadmium	14		9.24	131		2.9E-03		8	1.45	White and Finley (1978)	0.3	5.3
Calcium	349,000		N/A	N/A		181		N/A	N/A	N/A	N/A	N/A
Chromium	1,990		0.588	1,170		1.8E-02		72	1	Haseltine et al. (nd)	5.3	72
Cobalt	88		3.15	277			2.0E-03	16	5	Nation et al. (1983)*	N/A	3.2
Copper	173		3.872	670		5.1E-02		39	47	Mehring et al. (1960)	6.9E-02	0.8
Iron	34,200		3.15	107,730		0.4		6,314	N/A	N/A	N/A	N/A
Lead	251		0.946	237		1.8E-02		14	1.13	Edens et al. (1976)	1.0	13
Magnesium	17,300		N/A	N/A		27		N/A	N/A	N/A	N/A	N/A
Manganese	508		0.946	481		0.9		29	977	Laskey and Edens (1985)	2.5E-03	3.0E-02
Methylmercury	69		b	1.95		1.2E-05		0.2	0.0064	Heinz (1979)	2.2	38
Mercury	69		b	5.0		5.9E-05		0.4	0.45	Hill and Schaffner (1976)	0.5	0.9
Nickel	650		3.15	2,048		1.7E-02		120	77.4	Cain and Pafford (1981)	1.7E-02	1.6
Potassium	699		N/A	N/A		6.8		N/A	N/A	N/A	N/A	N/A
Selenium	1		0.588	0.6			5.0E-04	4.0E-02	0.4	Heinz et al. (1989)	0.2	0.1
Silver	5		3.872	19.7			1.0E-03	1.2	18.1	Walker (1971)*	N/A	0.1
Sodium	3,520		N/A	N/A		276		N/A	N/A	N/A	N/A	N/A
Thallium	0.65		0.946	0.6			2.5E-03	3.7E-02	0.237	Hudson et al. (1984)	3.4E-02	0.2
Vanadium	101		0.675	68.2			2.0E-03	4.1	11.4	White and Dieter (1978)	0.1	0.4
Zinc	276		8.465	2,336		0.1		136	14.5	Stahl et al. (1990)	0.1	9.4
Cyanide	35		N/A	N/A		0.2		N/A	68.7	Tewe and Maner (1981)*	N/A	N/A
Volatile Organic Compounds												
Aromatic Hydrocarbons												
Benzene	5.7		1	8.27		6.0E-02		0.5	N/A	N/A	N/A	N/A
Toluene	4.2		1	6.09		5.1E-03		0.4	26	Nawrot and Staples (1979)*	N/A	1.4E-02
Ethylbenzene	1.3		1	1.89		1.7E-03		0.1	N/A	N/A	N/A	N/A
Xylene isomers (total)	13		1	18.9		3.6E-03		1.1	2.1	Marks et al. (1982)*	N/A	0.5
Chlorinated Aromatic Hydrocarbons												
Chlorobenzene	43		3.86	241			5.0E-03	14	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	7.9		4.46	51.1		1.7E-03		3.0	6	Jori et al. (1982)	0.3	0.5
1,3-Dichlorobenzene	6.8		4.53	44.7		1.2E-03		2.6	6	Jori et al. (1982)	0.3	0.4
1,4-Dichlorobenzene	16		4.53	105		1.7E-03		6.1	6	Jori et al. (1982)	0.6	1.0
Dichlorobenzenes (sum)	23		4.53	150		4.6E-03		8.7	6	Jori et al. (1982)	1.0	1.5
1,2,4-Trichlorobenzene	0.3		4.9	2.04		2.4E-03		0.1	8	Cote et al. (1988)*	N/A	1.5E-02
1,3,5-Trichlorobenzene	4.2		N/A	N/A		1.6E-03		N/A	8	Cote et al. (1988)*	N/A	N/A
Trichlorobenzenes (sum)	4.2		4.9	29.8		6.7E-03		1.7	8	Cote et al. (1988)*	0.2	0.2

Table D-37. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Halogenated Alkanes												
Methylene chloride	7.6E-02		1	0.110			5.0E-03	6.8E-03	5.85	NCA (1982)*	N/A	1.2E-03
Ketones												
Acetone	1.1		1	1.60			5.0E-03	9.5E-02	10	USEPA (1986)*	N/A	9.5E-03
2-Butanone	2.9		1	4.21			5.0E-03	0.2	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds												
Isopropanol	1.8E-02		1	0.026				1.5E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds												
Chlorinated Aromatic Hydrocarbons												
1,2,4,5-Tetrachlorobenzene	0.7		5.2	5.7				0.3	1.6	Grant et al. (1977)*	2.5E-02	0.2
Tetrachlorobenzene (mixed)	1			5.7				0.3	1.6	Grant et al. (1977)*	–	0.2
Pentachlorobenzene	0.3		6.12	2.93				0.2	6	Jori et al. (1982)	1.2E-02	2.8E-02
Hexachlorobenzene	1.2		4.17	7.26			5.0E-03	0.4	0.2	Vos et al. (1971)	0.4	2.1
Low Molecular Weight Polycyclic Aromatic Hydrocarbons												
Naphthalene	30		2.637	115			5.0E-03	6.7	1	Hough et al. (1993)	N/A	6.7
Acenaphthylene	6.3		0.762	6.96			5.0E-03	0.4	1	Hough et al. (1993)	N/A	0.4
Acenaphthene	15		0.108	2.35			5.0E-03	0.2	1	Hough et al. (1993)	N/A	0.2
Fluorene	7.2		0.964	10.1			5.0E-03	0.6	1	Hough et al. (1993)	0.4	0.6
Phenanthrene	22		0.304	9.70			5.0E-03	0.6	1	Hough et al. (1993)	0.8	0.6
Anthracene	8.9		0.108	1.39			5.0E-03	9.8E-02	1	Hough et al. (1993)	2.1E-02	9.8E-02
1-Methylnaphthalene	43		1	62.4				3.7	1	Hough et al. (1993)	–	3.7
2-Methylnaphthalene	3.7		1	5.37			5.0E-03	0.3	1	Hough et al. (1993)	N/A	0.3
High Molecular Weight Polycyclic Aromatic Hydrocarbons												
Fluoranthene	230		0.54	180			5.0E-03	11	1	Hough et al. (1993)	1.1	11
Pyrene	17		0.514	12.7			5.0E-03	0.8	1	Hough et al. (1993)	1.0	0.8
Benz[a]anthracene	7.7		0.336	3.75			5.0E-03	0.2	1	Hough et al. (1993)	0.5	0.2
Chrysene	7.5		0.438	4.76			5.0E-03	0.3	1	Hough et al. (1993)	5.1E-02	0.3
Benzo[b]fluoranthene	29		0.416	17.5			5.0E-03	1.1	1	Hough et al. (1993)	N/A	1.1
Benzo[k]fluoranthene	3.8		0.291	1.60			5.0E-03	0.1	1	Hough et al. (1993)	N/A	0.1
Benzo[a]pyrene	7.8		0.223	2.52			5.0E-03	0.2	1	Hough et al. (1993)	2.5E-02	0.2
Indeno[1,2,3-cd]pyrene	1.9		0.281	0.788			5.0E-03	5.0E-02	1	Hough et al. (1993)	6.6E-03	5.0E-02
Dibenz[a,h]anthracene	0.9		0.377	0.487			5.0E-03	3.0E-02	1	Hough et al. (1993)	2.4E-03	3.0E-02
Benzo[ghi]perylene	9.3		0.047	0.634			5.0E-03	5.5E-02	1	Hough et al. (1993)	3.0E-02	5.5E-02
Benzo[e]pyrene	3.4		0.223	1.10				7.0E-02	1	Hough et al. (1993)	–	7.0E-02
Phenols												
Phenol	4.5E-02		1	0.065			5.0E-03	4.2E-03	6	Schafer et al. (1983)	4.9E-04	6.9E-04
4-Methylphenol	8.2E-02		1	0.119			5.0E-03	7.3E-03	219	Hornshaw et al. (1986)*	N/A	3.4E-05
Phthalates												
bis[2-Ethylhexyl]phthalate	3		1	4.35		1.0E-02		0.3	1.1	Peakall (1974)	0.1	0.2
Miscellaneous Oxygenated Compounds												
Dibenzofuran	1.3		1	1.89			5.0E-03	0.1	N/A	N/A	N/A	N/A
Carbazole	0.5		1	0.682			5.0E-03	4.1E-02	N/A	N/A	N/A	N/A

Table D-37. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Pesticides/Polychlorinated Biphenyls												
α-Chlordane	5.1E-03		2.07	0.0153			2.6E-05	9.0E-04	2.4	Stickel et al. (1983)	9.0E-06	3.7E-04
Chlordane isomers (sum)	5.1E-03		3.35	0.0247			2.6E-05	1.4E-03	2.4	Stickel et al. (1983)	N/A	6.0E-04
4,4'-DDD	4.7E-02		0.41	0.0279			5.0E-05	1.7E-03	0.0028	Anderson et al. (1975)	1.7E-02	0.6
DDT and metabolites (sum)	4.7E-02		0.41	0.0279				1.7E-03	0.0028	Anderson et al. (1975)	0.5	0.6
Aroclor 1016	0.2		1.48	0.386			5.0E-04	2.3E-02	0.18	Dahlgren et al. (1982)	0.4	0.1
Aroclor 1248	1.1		1.48	2.36			5.0E-04	0.1	0.18	Dahlgren et al. (1982)	2.16	0.8
Aroclor 1254	0.1		1.48	0.215			5.0E-04	1.3E-02	0.18	Dahlgren et al. (1982)	0.2	7.0E-02
Aroclor 1260	1		1.48	2.15			5.0E-04	0.1	33.3	Call and Harrell (1974)	1.1E-02	3.8E-03
PCBs (sum)	2.1		1.48	4.51				0.3	0.18	Dahlgren et al. (1982)	2.0	1.5

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] The recommendations for the Oak Ridge Reservation (US Department of Energy [USDOE], 1998) were followed for metals (90th percentile BSAFs non-depurated organisms).
All other BSAFs are from the US Army Corps of Engineers (USACE) database or based on professional judgment.
The following BSAFs were applied for metals with no BSAFs: chromium for selenium and aluminum; arsenic for antimony, beryllium, and vanadium; cadmium for barium; and lead for manganese and thallium.
[b] Actual total and methylmercury concentrations were measured in composites of benthic macroinvertebrates. The maximum benthic sample concentrations were therefore used in this food web screening, as opposed to applying biota-sediment accumulation factors to sediment values.
[c] Hazard quotients equal to or greater than one are outlined
* Indicates that a mammalian toxicity reference value (TRV) was used for screening due to lack of an avian one
– Indicates that a compound was not included in the Honeywell table.
NYSDEC prey (food) ingestion rate (FIR) = 0.058 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 3.3% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.059 L/day (based on Calder and Braun, 1983)

Table D-38. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Mallard (1992–1998)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Volatile Organic Compounds									
Aromatic Hydrocarbons									
Styrene	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Chlorinated Aromatic Hydrocarbons									
1,2,3-Trichlorobenzene	1.4	4.8	9.3		0.5	8	Cote et al. (1988)*		6.8E-02
Halogenated Alkanes									
Chloromethane	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Bromomethane	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Chloroethane	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
1,1-Dichloroethane	1.7	1	2.5	5.0E-03	0.1	17.2	Almut et al. (1976)	N/A	8.5E-03
Chloroform	1.7	1	2.5	5.0E-03	0.1	15	Palmer et al. (1979)*	N/A	9.8E-03
1,2-Dichloroethane	1.7	1	2.5	5.0E-03	0.1	17.2	Almut et al. (1976)	5.8E-03	8.5E-03
1,1,1-Trichloroethane	1.7	1	2.5	5.0E-03	0.1	1,000	Lane et al. (1982)*	N/A	1.5E-04
Carbon tetrachloride	1.7	1	2.5	5.0E-03	0.1	16	Alumot et al. (1976)*	N/A	9.2E-03
Bromodichloromethane	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
1,2-Dichloropropane	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Dibromochloromethane	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	1.7	1	2.5	5.0E-03	0.1	1,000	Lane et al. (1982)*	N/A	1.5E-04
Bromoform	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Halogenated Alkenes									
Vinyl chloride	1.7	1	2.5	5.0E-03	0.1	0.17	Feron et al. (1981)*	N/A	0.9
1,1-Dichloroethene	1.7	1	2.5	5.0E-03	0.1	2.5	Quast et al. (1983)*	N/A	5.9E-02
1,2-Dichloroethene isomers (total)	1.7	1	2.5	5.0E-03	0.1	2.5	Quast et al. (1983)*	N/A	5.9E-02
cis -1,3-Dichloropropene	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
trans -1,3-Dichloropropene	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Trichloroethene	1.7	1	2.5	5.0E-03	0.1	0.7	Buben and O'Flaherty (1985)*	N/A	0.2
Tetrachloroethene	1.7	1	2.5	5.0E-03	0.1	1.4	Buben and O'Flaherty (1985)*	N/A	0.1
Ketones									
2-Hexanone	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds									
Carbon disulfide	1.7	1	2.5	5.0E-03	0.1	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds									
Chlorinated Aromatic Hydrocarbons									
2-Chloronaphthalene	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Phenols									
2-Methylphenol	21	1	30	5.0E-03	1.8	219	Hornshaw et al. (1986)*	N/A	8.2E-03
2,4-Dimethylphenol	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Substituted Phenols									
2-Chlorophenol	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A

Table D-38. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
4-Chloro-3-methylphenol	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	50	1	73	1.3E-02	4.3	N/A	N/A	N/A	N/A
Pentachlorophenol	50	1	73	1.3E-02	4.3	0.24	Schwetz et al. (1978)	0.4	18
2-Nitrophenol	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
4-Nitrophenol	50	1	73	1.3E-02	4.3	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	50	1	73	1.3E-02	4.3	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol	50	1	73	1.3E-02	4.3	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons									
Hexachloroethane	21	1	30	5.0E-03	1.8	0.05	Tugarinova et al. (1960)*	N/A	36
Hexachlorobutadiene	21	1	30	5.0E-03	1.8	0.2	Kociba et al. (1977)*	N/A	9.0
Hexachlorocyclopentadiene	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Halogenated Ethers									
bis[2-chloroethyl]ether	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Phthalates									
Dimethyl phthalate	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Diethyl phthalate	21	1	30	5.0E-03	1.8	4,580	Lamb et al. (1987)*	N/A	3.9E-04
Di-*n*-butyl phthalate	21	1	30	5.0E-03	1.8	0.11	Peakall (1974)	1.0	16
Butylbenzyl phthalate	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Di-*n*-octyl phthalate	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds									
Isophorone	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Organonitrogen Compounds									
Nitrobenzene	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
N-nitroso-di-*n*-propylamine	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
2-Nitroaniline	50	1	73	1.3E-02	4.3	N/A	N/A	N/A	N/A
3-Nitroaniline	50	1	73	1.3E-02	4.3	N/A	N/A	N/A	N/A
4-Nitroaniline	50	1	73	1.3E-02	4.3	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
4-Chloroaniline	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	21	1	30	5.0E-03	1.8	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls									
α-Hexachlorocyclohexane	7.5E-03	0.70	0.008	2.6E-05	4.6E-04	0.02	Sauter and Steele (1972)	8.5E-04	2.3E-02
β-Hexachlorocyclohexane	7.5E-03	1.15	0.013	2.6E-05	7.4E-04	0.02	Sauter and Steele (1972)	8.5E-04	3.7E-02
δ-Hexachlorocyclohexane	7.5E-03	1.15	0.013	2.6E-05	7.4E-04	0.02	Sauter and Steele (1972)	8.5E-04	3.7E-02
γ-Hexachlorocyclohexane	7.5E-03	0.60	0.007	2.6E-05	3.9E-04	0.02	Sauter and Steele (1972)	8.5E-04	2.0E-02

Table D-38. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Aldrin	7.5E-03	8.50	0.092	2.6E-05	5.4E-03	0.77	Mendenhall et al. (1983)	6.6E-04	7.0E-03
γ-Chlordane	7.5E-03	1.212	0.013	2.6E-05	7.8E-04	2.4	Stickel et al. (1983)	1.2E-05	3.3E-04
Dieldrin	1.5E-02	8.50	0.179	5.0E-05	1.0E-02	0.077	Mendenhall et al. (1983)	1.3E-02	1.4E-01
α-Endosulfan	7.5E-03	2.7	0.029	2.6E-05	1.7E-03	50	Abiola (1992)	8.9E-06	3.4E-05
Endosulfan sulfate	1.5E-02	2.7	0.057	5.0E-05	3.3E-03	11.1	Abiola (1992)	8.0E-05	3.0E-04
Heptachlor epoxide	7.5E-03	0.65	0.007	2.6E-05	4.3E-04	0.005	WHO (1984)	3.1E-03	8.5E-02
β-Endosulfan	1.5E-02	2.7	0.057	5.0E-05	3.3E-03	50	Abiola (1992)	1.8E-05	6.6E-05
4,4'-DDE	1.5E-02	0.94	0.0198	5.0E-05	1.2E-03	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	4.1E-02	3.1E-02
4,4'-DDT	1.5E-02	0.41	0.0086	5.0E-05	5.3E-04	0.0028	Anderson et al. (1975)	0.2	0.2
Endrin	1.5E-02	0.009	0.0002	5.0E-05	4.2E-05	0.01	Fleming et al. (1982)	3.1E-03	4.2E-03
Endrin aldehyde	1.5E-02	0.009	0.0002	5.0E-05	4.2E-05	0.01	Fleming et al. (1982)	8.9E-02	4.2E-03
Endrin ketone	1.5E-02	0.009	0.0002	5.0E-05	4.2E-05	0.01	Fleming et al. (1982)	8.9E-02	4.2E-03
Heptachlor	7.5E-03	N/A	N/A	2.6E-05	N/A	0.05	Wagstaff et al. (1980)	5.8E-07	N/A
Methoxychlor	7.5E-02	1.2	0.131	2.6E-04	7.7E-03	2	Hudson et al. (1984)	2.2E-03	3.9E-03
Toxaphene	0.8	N/A	N/A	2.6E-03	N/A	8	Kennedy et al. (1973)*	N/A	N/A
Aroclor 1221	0.3	1.48	0.63	1.1E-03	3.7E-02	0.18	Dahlgren et al. (1982)	0.6	0.2
Aroclor 1232	0.2	1.48	0.36	5.0E-04	2.2E-02	0.18	Dahlgren et al. (1982)	0.3	0.1
Aroclor 1242	0.2	1.48	0.36	5.0E-04	2.2E-02	0.41	McLane and Hughes (1980)	0.1	5.2E-02

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] BSAFs are from the USACE database or based on professional judgment
[b] Hazard quotients equal to or greater than one are outlined.
* Indicates that a mammalian toxicity reference value (TRV) was used for screening due to lack of an avian one
NYSDEC prey (food) ingestion rate (FIR) = 0.058 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 3.3% of FIR (based on professional judgment)
NYSDEC water ingestion rate (WIR) = 0.059 L/day (based on Calder and Braun, 1983)

Table D-39. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the River Otter (1992–1998)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum		19	5,610		0.1		3.9	1.93	Ondreicka et al. (1966)	2.6	2.0
Antimony	8.6		6.4		2.6E-02		0.5	0.125	Schroeder et al. (1968)	11	3.6
Arsenic		0.3	11.2		1.1E-03		2.1E-02	0.126	Schroeder and Mitchner (1971)	0.6	0.2
Barium		0.5	890		7.7E-02		0.5	5.1	Perry et al. (1983)	0.1	0.1
Beryllium		0.5	0.6			5.0E-04	2.4E-02	0.66	Schroeder and Mitchner (1975)	9.6E-02	3.7E-02
Cadmium	0.1		14		2.9E-03		1.4E-02	1	Sutou et al. (1980)	6.8E-02	1.4E-02
Calcium	4,532		349,000		181		433	N/A	N/A	N/A	N/A
Chromium	3.1		1,990		1.8E-02		1.2	3.28	Mackenzie et al. (1958)	0.5	0.4
Cobalt		0.9	88			2.0E-03	9.5E-02	5	Nation et al. (1983)	3.4E-02	1.9E-02
Copper	4.1		173		5.1E-02		0.3	11.7	Aulerich et al. (1982)	8.8E-02	2.6E-02
Iron		23	34,200		0.4		19	N/A	N/A	N/A	N/A
Lead	1.2		251		1.8E-02		0.2	8	Azar et al. (1973)	4.0E-02	2.4E-02
Magnesium	1,154		17,300		27		71	N/A	N/A	N/A	N/A
Manganese	1.5		508		0.9		0.4	88	Laskey et al. (1982)	6.5E-03	4.7E-03
Methylmercury	12				1.2E-05		0.6	0.015	Wobeser et al. (1976)	43	42
Mercury	19		69		5.9E-05		1.0	1	Aulerich et al. (1974)	11	1.0
Nickel		3.8	650		1.7E-02		0.5	40	Ambrose et al. (1976)	2.1E-02	1.3E-02
Potassium	16,366		699		6.8		852	N/A	N/A	N/A	N/A
Selenium	3.5		1.1			5.0E-04	0.2	0.2	Rosenfeld and Beath (1954)	2.7	0.9
Silver		0.9	5.1			1.0E-03	5.1E-02	18.1	Walker (1971)	7.0E-03	2.8E-03
Sodium	2,891		3,520		276		176	N/A	N/A	N/A	N/A
Thallium		0.3	0.7			2.5E-03	1.6E-02	0.0074	Formigli et al. (1986)	9.0	2.1
Vanadium		0.9	101			2.0E-03	0.1	0.21	Domingo et al. (1986)	0.9	0.5
Zinc	68		276		0.1		3.7	160	Schlicker and Cox (1968)	6.6E-02	2.3E-02
Cyanide	4.1		35		0.2		0.2	68.7	Tewe and Maner (1981)	N/A	3.6E-03
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene		2.1E-02	5.7			5.0E-03	4.5E-03	26	Nawrot and Staples (1979)	3.7E-04	1.7E-04
Toluene	2.1E-02		4.2			5.0E-03	3.7E-03	26	Nawrot and Staples (1979)	1.9E-04	1.4E-04
Ethylbenzene		2.1E-02	1.3			5.0E-03	2.2E-03	26	Nawrot and Staples (1979)	1.3E-04	8.4E-05
Xylene isomers (total)		2.1E-02	13			5.0E-03	8.3E-03	2.1	Marks et al. (1982)	3.4E-04	3.9E-03
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene		2.1E-02	43			5.0E-03	2.4E-02	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene		0.3	7.9		1.7E-03		2.2E-02	250	Lake et al. (1997)	2.2E-04	8.7E-05
1,3-Dichlorobenzene		0.3	6.8		1.2E-03		2.1E-02	250	Lake et al. (1997)	2.0E-04	8.5E-05
1,4-Dichlorobenzene	0.2		16		1.7E-03		8.5E-03	250	Lake et al. (1997)	2.3E-04	3.4E-05
Dichlorobenzenes (sum)	0.2		23		4.6E-03		1.2E-02	250	Lake et al. (1997)	–	4.9E-05
1,2,4-Trichlorobenzene		0.3	0.3		2.4E-03		1.8E-02	8	Cote et al. (1988)	6.3E-03	2.2.E-03
1,2,3-Trichlorobenzene				1.4	2.7E-03		9.3E-04	8	Cote et al. (1988)	–	1.2.E-04
1,3,5-Trichlorobenzene			4.2		1.6E-03	5.0E-03	2.3E-03	8	Cote et al. (1988)	–	2.9.E-04
Trichlorobenzenes (sum)			4.2		6.7E-03		2.8E-03	8	Cote et al. (1988)	–	3.4.E-04
Halogenated Alkanes											
Methylene chloride		2.1E-02	0.1			5.0E-03	1.6E-03	5.85	NCA (1982)	–	2.7.E-04

Table D-39. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Ketones											
Acetone	0.8		1.1			5.0E-03	4.0E-02	10	USEPA (1986)	1.1E-02	4.0.E-03
2-Butanone	3.4E-02		2.9			5.0E-03	3.7E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds											
Isopropanol	0.1		1.8E-02				2.8E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,3,4-Tetrachlorobenzene			0.7			5.0E-03	7.6E-04	1.6	Grant et al. (1977)	–	4.8E-04
Tetrachlorobenzene (mixed)			1.0				5.2E-04	1.6	Grant et al. (1977)	–	3.3E-04
Pentachlorobenzene		0.1	0.3				3.0E-03	1.6	Grant et al. (1977)	5.4E-03	1.9E-03
Hexachlorobenzene	0.4		1.2			5.0E-03	2.4E-02	0.05	Fassbender et al. (1977)	3.2E-02	0.5
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	0.2		30			5.0E-03	3.0E-02	1	Mackenzie and Angevine (1981)	N/A	3.0E-02
Acenaphthylene		0.3	6.3			5.0E-03	2.1E-02	1	Mackenzie and Angevine (1981)	N/A	2.1E-02
Acenaphthene		0.3	15			5.0E-03	2.6E-02	1	Mackenzie and Angevine (1981)	N/A	2.6E-02
Fluorene		0.3	7.2			5.0E-03	2.2E-02	1	Mackenzie and Angevine (1981)	5.5E-02	2.2E-02
Phenanthrene		0.3	22			5.0E-03	2.9E-02	1	Mackenzie and Angevine (1981)	6.2E-02	2.9E-02
Anthracene		0.3	8.9			5.0E-03	2.3E-02	1	Mackenzie and Angevine (1981)	5.5E-02	2.3E-02
1-Methylnaphthalene	6.2		43				0.3	1	Mackenzie and Angevine (1981)	–	0.3
2-Methylnaphthalene		0.3	3.7			5.0E-03	2.0E-02	1	Mackenzie and Angevine (1981)	N/A	2.0E-02
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene		0.3	230			5.0E-03	0.1	1	Mackenzie and Angevine (1981)	0.2	0.1
Pyrene		0.3	17			5.0E-03	2.7E-02	1	Mackenzie and Angevine (1981)	6.0E-02	2.7E-02
Benz[a]anthracene		0.3	7.7			5.0E-03	2.2E-02	1	Mackenzie and Angevine (1981)	5.5E-02	2.2E-02
Chrysene		0.3	7.5			5.0E-03	2.2E-02	1	Mackenzie and Angevine (1981)	5.5E-02	2.2E-02
Benzo[b]fluoranthene		0.3	29			5.0E-03	3.3E-02	1	Mackenzie and Angevine (1981)	N/A	3.3E-02
Benzo[k]fluoranthene		0.3	3.8			5.0E-03	2.0E-02	1	Mackenzie and Angevine (1981)	N/A	2.0E-02
Benzo[a]pyrene		0.3	7.8			5.0E-03	2.2E-02	1	Mackenzie and Angevine (1981)	5.5E-02	2.2E-02
Indeno[1,2,3-cd]pyrene		0.3	1.9			5.0E-03	1.9E-02	1	Mackenzie and Angevine (1981)	5.2E-02	1.9E-02
Dibenz[a,h]anthracene		0.3	0.9			5.0E-03	1.8E-02	1	Mackenzie and Angevine (1981)	5.1E-02	1.8E-02
Benzo[ghi]perylene		0.3	9.3			5.0E-03	2.3E-02	1	Mackenzie and Angevine (1981)	5.6E-02	2.3E-02
Benzo[e]pyrene			3.4			5.0E-03	2.2E-03	1	Mackenzie and Angevine (1981)	–	2.2E-03
Phenols											
Phenol		0.3	4.5E-02			5.0E-03	1.7E-02	523	NCI (1980)	3.3E-05	3.3E-05
4-Methylphenol			8.2E-02				4.3E-05	219	Hornshaw et al. (1986)	–	N/A
Phthalates											
Di-*n* -butyl phthalate	0.3			21		5.0E-03	2.6E-02	550	Lamb et al. (1987)	1.3E-04	4.7E-05
bis[2-Ethylhexyl]phthalate	9.7		3.0		1.0E-02		0.5	18.3	Lamb et al. (1987)	7.9E-02	0.03
Miscellaneous Oxygenated Compounds											
Dibenzofuran		0.3	1.3			5.0E-03	1.9E-02	N/A	N/A	N/A	N/A

Table D-39. (cont.)

Analyte		Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
	Carbazole		0.3	0.5			5.0E-03	1.8E-02	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls												
	δ-Hexachlorocyclohexane	1.1E-02			7.5E-03		2.6E-05	6.0E-04	8	Palmer et al. (1978)	2.2E-04	7.5E-05
	γ-Hexachlorocyclohexane	34			7.5E-03		2.6E-05	1.8	8	Palmer et al. (1978)	6.7E-04	0.2
	α-Chlordane	0.1		5.1E-03			2.6E-05	4.7E-03	0.075	FAO/WHO (1983)	4.5E-03	6.2E-02
	Chlordane isomers (sum)	0.3		5.1E-03			2.6E-05	1.8E-02	0.075	FAO/WHO (1983)	1.4E-02	0.2
	α-Endosulfan	3.1E-02			7.5E-03		2.6E-05	1.6E-03	0.15	Dikshith et al. (1984)	4.5E-02	1.1E-02
	Endosulfan sulfate	1.8E-02			1.5E-02		5.0E-05	9.3E-04	0.15	Dikshith et al. (1984)	2.6E-02	6.2E-03
	Dieldrin	0.1			1.5E-02		5.0E-05	9.3E-04	0.018	Harr et al. (1970)	2.3	0.1
	Aldrin and dieldrin (sum)	0.1						4.1E-03	0.018	Harr et al. (1970)	0.2	0.2
	Endrin	0.1			1.5E-02		5.0E-05	7.5E-03	0.065	Treon et al. (1955)	0.5	0.1
	Heptachlor epoxide	4.6E-02			7.5E-03		2.6E-05	2.4E-03	0.075	Kinoshita and Kempf (1970)	2.9E-02	3.2E-02
	Heptachlor and heptachlor epoxide (sum)	4.6E-02						2.4E-03	0.075	Kinoshita and Kempf (1970)	3.6E-02	3.2E-02
	4,4'-DDD	0.5		4.7E-02			5.0E-05	2.4E-02	85	NCI (1978), as cited in ATSDR (1994)	1.3E-03	2.8E-04
	4,4'-DDE	1.1			1.5E-02		5.0E-05	5.6E-02	28	Gellert and Heinrich (1975), as cited in ATSDR (1994)	9.0E-03	2.0E-03
	4,4'-DDT	0.3			1.5E-02		5.0E-05	1.4E-02	0.8	Fitzhugh (1948)	1.7E-02	1.8E-02
	DDT and metabolites (sum)	2.7		4.7E-02				0.1	0.8	Fitzhugh (1948)	0.5	0.2
	Mirex	1.2E-02						6.0E-04	0.05	Chu et al. (1981)	–	1.2E-02
	Aroclor 1016	6.1		0.2			5.0E-04	0.3	1.37	Bleavins et al. (1980)	0.6	0.2
	Aroclor 1242	6.7			0.2		5.0E-04	0.3	0.069	Bleavins et al. (1980)	2.2	5.0
	Aroclor 1248	10		1.1			5.0E-04	0.5	0.01	Barsotti et al. (1976)	214	53
	Aroclor 1254	46		0.1			5.0E-04	2.4	0.0068	McCoy et al. (1995)	18	353
	Aroclor 1260	2.9		1.0			5.0E-04	0.2	6.9	Linder et al. (1974)	0.1	2.2E-02
	Aroclors 1254 and 1260	6.5						0.3	0.0068	McCoy et al. (1995)	–	50
	PCBs (sum)	46		2.1			5.0E-04	2.4	0.0068	McCoy et al. (1995)	20	353

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– Indicates that a compound was not included in the Honeywell table
[a] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.052 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.085 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-40. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the River Otter (1992–1998)

Analyte	Fish Detected Value[a] (ng/kg dry)	Fish One-Half MDL (ng/kg dry)	NYSDEC EED (ng/kg BW/day)	WHO Mammalian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8		0.1	0.01	9.3E-04			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p* -dioxin	4.1		0.2	0.01	2.1E-03			
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.2	9.7E-03	0.01	9.7E-05			
1,2,3,4,7,8-Hexachlorodibenzofuran	19		1.0	0.1	0.1			
1,2,3,4,7,8-Hexachlorodibenzo-*p* -dioxin	3.0		0.2	0.1	1.5E-02			
1,2,3,6,7,8-Hexachlorodibenzofuran	6.4		0.3	0.1	3.3E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p* -dioxin	7.7		0.4	0.1	4.0E-02			
1,2,3,7,8,9-Hexachlorodibenzofuran		0.2	9.7E-03	0.1	9.7E-04			
1,2,3,7,8,9-Hexachlorodibenzo-*p* -dioxin		0.2	9.7E-03	0.1	9.7E-04			
1,2,3,7,8-Pentachlorodibenzofuran	22		1.1	0.05	0.1			
1,2,3,7,8-Pentachlorodibenzo-*p* -dioxin	18		0.9	1	0.9			
2,3,4,6,7,8-Hexachlorodibenzofuran	2.0		0.1	0.1	1.0E-02			
2,3,4,7,8-Pentachlorodibenzofuran	263		13.7	0.5	7			
2,3,7,8-Tetrachlorodibenzofuran	53		2.8	0.1	0.3			
2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	11		0.6	1	0.6			
Octachlorodibenzofuran		0.2	9.7E-03	0.0001	9.7E-07			
Octachlorodibenzo-*p* -dioxin	4.0		0.2	0.0001	2.1E-05			
					8.9	1.0	9.0	8.9

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO mammalian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans.
[b] TRV is for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined.
NYSDEC prey (food) ingestion rate (FIR) = 0.052 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (based on best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.085 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-41. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the River Otter (1992–1998)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Aromatic Hydrocarbons								
Styrene	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Halogenated Alkanes								
Chloromethane	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Bromomethane	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Chloroethane	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
1,1-Dichloroethane	2.1E-02	1.7	5.0E-03	2.4E-03	50	Lane et al. (1982)	N/A	N/A
Chloroform	2.1E-02	1.7	5.0E-03	2.4E-03	15	Palmer et al. (1979)	3.4E-04	1.6E-04
1,2-Dichloroethane	2.1E-02	1.7	5.0E-03	2.4E-03	50	Lane et al. (1982)	1.0E-04	4.8E-05
1,1,1-Trichloroethane	2.1E-02	1.7	5.0E-03	2.4E-03	1,000	Lane et al. (1982)	5.1E-06	2.4E-06
Carbon tetrachloride	2.1E-02	1.7	5.0E-03	2.4E-03	16	Alumot et al. (1976)	3.2E-04	1.5E-04
Bromodichloromethane	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
1,2-Dichloropropane	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Dibromochloromethane	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	2.1E-02	1.7	5.0E-03	2.4E-03	1000	Lane et al. (1982)	N/A	2.4E-06
Bromoform	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Halogenated Alkenes								
Vinyl chloride	2.1E-02	1.7	5.0E-03	2.4E-03	0.17	Feron et al. (1981)	3.0E-02	1.4E-02
1,1-Dichloroethene	2.1E-02	1.7	5.0E-03	2.4E-03	2.5	Quast et al. (1983)	2.1E-03	9.6E-04
1,2-Dichloroethene isomers (total)	2.1E-02	1.7	5.0E-03	4.2E-03	2.5	Quast et al. (1983)	1.1E-04	1.7E-03
cis -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
trans -1,3-Dichloropropene	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Trichloroethene	2.1E-02	1.7	5.0E-03	2.4E-03	0.7	Buben and O'Flaherty (1985)	7.3E-03	3.4E-03
Tetrachloroethene	2.1E-02	1.7	5.0E-03	2.4E-03	1.4	Buben and O'Flaherty (1985)	3.7E-03	1.7E-03
Ketones								
2-Hexanone	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds								
Carbon disulfide	2.1E-02	1.7	5.0E-03	2.4E-03	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.1			2.9E-03	1.6	Grant et al. (1977)	5.3E-03	1.8E-03
Phenols								
2-Methylphenol	0.1	21	5.0E-03	1.7E-02	219	Hornshaw et al. (1986)	1.8E-04	7.8E-05
2,4-Dimethylphenol	0.1	21	5.0E-03	1.7E-02	N/A	N/A	N/A	N/A
4,3-Methylphenol	0.1			5.7E-03	N/A	N/A	N/A	N/A
Substituted Phenols								
2-Chlorophenol	0.1	21	5.0E-03	1.7E-02	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	0.1	21	5.0E-03	1.7E-02	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	0.1	21	5.0E-03	1.7E-02	N/A	N/A	N/A	N/A

Table D-41. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
2,4,6-Trichlorophenol	0.1	21	5.0E-03	1.7E-02	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	0.1	50	1.3E-02	3.3E-02	N/A	N/A	N/A	N/A
Pentachlorophenol	0.1	50	1.3E-02	3.3E-02	0.24	Schwetz et al. (1978)	0.3	0.1
2-Nitrophenol	0.1	21	5.0E-03	1.7E-02	N/A	N/A	N/A	N/A
4-Nitrophenol	0.1	50	1.3E-02	3.3E-02	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	0.1	50	1.3E-02	3.3E-02	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol		50	1.3E-02	2.7E-02	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol	0.1			5.7E-03	1	Hattula et al. (1981)	N/A	5.7E-03
2,6-Dichlorophenol	0.1			5.7E-03	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane	0.3	21	5.0E-03	2.9E-02	0.05	Tugarinova et al. (1960)	N/A	0.6
Hexachlorobutadiene	0.3	21	5.0E-03	2.9E-02	0.2	Kociba et al. (1977)	N/A	0.1
Hexachlorocyclopentadiene	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
Phthalates								
Dimethylphthalate	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
Diethylphthalate	0.3	21	5.0E-03	2.9E-02	4,580	Lamb et al. (1987)	1.6E-05	6.3E-06
Butylbenzylphthalate	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
Di-*n* -octylphthalate	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds								
Isophorone	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
Benzyl alcohol	0.1			5.7E-03	N/A	N/A	N/A	N/A
Benzoic acid	0.1			5.7E-03	N/A	N/A	N/A	N/A
Organonitrogen Compounds								
Nitrobenzene	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylamine	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
2-Nitroaniline	0.8	50	1.3E-02	7.3E-02	N/A	N/A	N/A	N/A
3-Nitroaniline	0.8	50	1.3E-02	7.3E-02	N/A	N/A	N/A	N/A
4-Nitroaniline	0.8	50	1.3E-02	7.3E-02	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
N -nitrosodiphenylamine	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
4-Chloroaniline	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.3	21	5.0E-03	2.9E-02	N/A	N/A	N/A	N/A
1-Naphthylamine	0.1			2.9E-03	N/A	N/A	N/A	N/A
1-Nitrosopiperidine	0.1			2.9E-03	N/A	N/A	N/A	N/A
2-Picoline	0.1			2.9E-03	N/A	N/A	N/A	N/A
4-Amino biphenyl	0.1			2.9E-03	N/A	N/A	N/A	N/A

Table D-41. (cont.)

Analyte		Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
	Aniline	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Azobenzene	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Benzidine	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Diphenylhydrazine	0.1			2.9E-03	N/A	N/A	N/A	N/A
	N-nitroso dibutylamine	0.1			2.9E-03	N/A	N/A	N/A	N/A
	p-Dimethylaminoazobenzene	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Pentachloronitrobenzene	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Phenacetin	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Pronamide	0.1			2.9E-03	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls									
	α-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	2.4E-03	8	Palmer et al. (1978)	3.7E-04	2.9E-04
	β-Hexachlorocyclohexane	1.4E-02	7.5E-03	2.6E-05	2.4E-03	8	Palmer et al. (1978)	3.7E-04	2.9E-04
	Aldrin	1.4E-02	7.5E-03	2.6E-05	7.6E-04	0.2	Treon and Cleveland (1955)	7.9E-03	3.8E-03
	γ-Chlordane	3.5E-03	7.5E-03	2.6E-05	1.9E-04	0.075	FAO/WHO (1983)	1.2E-04	2.5E-03
	β-Endosulfan	1.4E-02	1.5E-02	5.0E-05	7.7E-04	0.15	Dikshith et al. (1984)	1.1E-02	5.1E-03
	Heptachlor	1.4E-02	7.5E-03	2.6E-05	7.6E-04	0.075	Kinoshita and Kempf (1970)	–	1.0E-02
	Methoxychlordane	0.5			2.7E-02	N/A	N/A	–	N/A
	Endrin aldehyde	1.4E-02	1.5E-02	5.0E-05	7.7E-04	0.065	Treon et al. (1955)	1.7E-02	1.2E-02
	Endrin ketone	6.7E-03	1.5E-02	5.0E-05	3.6E-04	0.065	Treon et al. (1955)	1.1E-02	5.6E-03
	Methoxychlor	3.5E-02	7.5E-02	2.6E-04	1.9E-03	4	Gray et al. (1988)	2.0E-02	4.7E-04
	Toxaphene	1.0	0.8	2.6E-03	5.5E-02	8	Kennedy et al. (1973)	2.0E-02	6.9E-03
	Photomirex	1.4E-02			1.3E-02	0.25	Chu et al. (1981)	N/A	5.2E-02
	Mirex and photomirex	1.6E-02			8.5E-04	0.05	Chu et al. (1981)	–	1.7E-02
	Aroclor 1221	2.1	0.3	1.1E-03	0.1	0.01	Barsotti et al. (1976)	–	11
	Aroclor 1232	0.9	0.2	5.0E-04	1.3E-04	0.01	Barsotti et al. (1976)	15	1.3E-02
Miscellaneous									
	3-Methylcholanthrene	0.1			2.8E-03	N/A	N/A	N/A	N/A
	7,12-Dimethylbenz[a]anthracene	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Dibenz[a,j]acridine	0.1			2.8E-03	N/A	N/A	N/A	N/A
	Ethylmethanesulfonate	0.1			2.9E-03	N/A	N/A	N/A	N/A
	Methylmethanesulfonate	0.1			2.9E-03	N/A	N/A	N/A	N/A

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– Indicates that a compound was not included in the Honeywell table
[a] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.052 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.085 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-42. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the Tree Swallow (1992–1998)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Total Metals and Cyanide											
Aluminum	5,610		0.588	3,299	0.1		795	110	Carriere et al. (1986)	7.4E-02	7.2
Antimony	6.4		0.675	4.3	2.6E-02		1.0	1,400	Damron and Wilson (1975)	3.6E-04	7.5E-04
Arsenic	11		0.675	7.6	1.1E-03		1.8	2.46	USFWS (1964)	0.3	0.7
Barium	890		9.24	8,224	7.7E-02		1,982	20.8	Johnson et al. (1960)	1.4	95
Beryllium	0.6		0.675	0.405		5.0E-04	0.1	0.66	Schroeder and Mitchner (1975)*	N/A	0.1
Cadmium	14		9.24	131	2.9E-03		32	1.45	White and Finley (1978)	1.1	22
Calcium	349,000		N/A	N/A	181		N/A	N/A	N/A	N/A	N/A
Chromium	1,990		0.588	1,170	1.8E-02		282	1	Haseltine et al. (nd)	6.3	282
Cobalt	88		3.15	277		2.0E-03	67	5	Nation et al. (1983)*	N/A	13
Copper	173		3.872	971	5.1E-02		234	47	Mehring et al. (1960)	0.3	5.0
Iron	34,200		3.15	107,730	0.4		25,963	N/A	N/A	N/A	N/A
Lead	251		0.946	237	1.8E-02		57	1.13	Edens et al. (1976)	2.7	51
Magnesium	17,300		N/A	N/A	27		N/A	N/A	N/A	N/A	N/A
Manganese	508		0.946	481	0.9		116	977	Laskey and Edens (1985)	6.2E-03	0.1
Methylmercury	69		b	1.95	1.2E-05		0.5	0.0064	Heinz (1979)	8.8	73
Mercury	69		b	5.0	5.9E-05		1.2	0.45	Hill and Schaffner (1976)	0.9	2.7
Nickel	650		3.15	2,048	1.7E-02		493	77.4	Cain and Pafford (1981)	6.8E-03	6.4
Potassium	699		N/A	N/A	6.8		N/A	N/A	N/A	N/A	N/A
Selenium	1		0.588	0.6		5.0E-04	0.2	0.4	Heinz et al. (1989)	1.0	0.4
Silver	5		3.872	19.7		1.0E-03	4.8	18.1	Walker (1971)*	N/A	0.3
Sodium	3,520		N/A	N/A	276		N/A	N/A	N/A	N/A	N/A
Thallium	0.65		0.946	0.6		2.5E-03	0.1	0.237	Hudson et al. (1984)	0.1	0.6
Vanadium	101		0.675	68.2		2.0E-03	16	11.4	White and Dieter (1978)	0.3	1.4
Zinc	276		8.465	2,336	0.1		563	14.5	Stahl et al. (1990)	0.4	39
Cyanide	35		N/A	N/A	0.2		N/A	68.7	Tewe and Maner (1981)*	N/A	N/A
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	5.7		1	8.27	6.0E-02		2.0	N/A	N/A	N/A	N/A
Toluene	4.2		1	6.09	5.1E-03		1.5	26	Nawrot and Staples (1979)*	N/A	5.6E-02
Ethylbenzene	1.3		1	1.89	1.7E-03		0.5	N/A	N/A	N/A	N/A
Xylene isomers (total)	13		1	18.9	3.6E-03		4.5	2.1	Marks et al. (1982)*	N/A	2.2
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	43		3.86	241		5.0E-03	58	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	7.9		4.46	51.1	1.7E-03		12	6	Jori et al. (1982)	1.2	2.1
1,3-Dichlorobenzene	6.8		4.53	44.7	1.2E-03		11	6	Jori et al. (1982)	1.1	1.8
1,4-Dichlorobenzene	16		4.53	105	1.7E-03		25	6	Jori et al. (1982)	2.5	4.2
Dichlorobenzenes (sum)	23		4.53	150	4.6E-03		36	6	Jori et al. (1982)	4.3	6.0
1,2,4-Trichlorobenzene	0.3		4.9	2.04	2.4E-03		0.5	8	Cote et al. (1988)*	N/A	0.1
1,3,5-Trichlorobenzene	4.2		N/A	N/A	1.6E-03		N/A	8	Cote et al. (1988)*	N/A	N/A
Trichlorobenzenes (sum)	4.2		4.9	29.8	6.7E-03		7.2	8	Cote et al. (1988)*	0.9	0.9
Halogenated Alkanes											
Methylene chloride	7.6E-02		1	0.110		5.0E-03	2.8E-02	5.85	NCA (1982)*	N/A	4.7E-03

Table D-42. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Ketones											
Acetone	1.1		1	1.60		5.0E-03	0.4	10	USEPA (1986)*	N/A	3.9E-02
2-Butanone	2.9		1	4.21		5.0E-03	1.0	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds											
Isopropanol	1.8E-02		1	0.026			6.3E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,4,5-Tetrachlorobenzene	0.7		5.2	5.7			1.4	1.6	Grant et al. (1977)*	0.1	N/A
Tetrachlorobenzene (mixed)	1			5.7			1.4	1.6	Grant et al. (1977)*	–	N/A
Pentachlorobenzene	0.3		6.12	2.93			0.7	6	Jori et al. (1982)	5.2E-02	0.1
Hexachlorobenzene	1.2		4.17	7.26		5.0E-03	1.7	0.2	Vos et al. (1971)	1.8	8.7
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	30		2.637	115		5.0E-03	28	1	Hough et al. (1993)	N/A	28
Acenaphthylene	6.3		0.762	6.96		5.0E-03	1.7	1	Hough et al. (1993)	N/A	1.7
Acenaphthene	15		0.108	2.35		5.0E-03	0.6	1	Hough et al. (1993)	N/A	0.6
Fluorene	7.2		0.964	10.1		5.0E-03	2.4	1	Hough et al. (1993)	1.7	2.4
Phenanthrene	22		0.304	9.70		5.0E-03	2.3	1	Hough et al. (1993)	3.1	2.3
Anthracene	8.9		0.108	1.39		5.0E-03	0.3	1	Hough et al. (1993)	1.8E-02	0.3
1-Methylnaphthalene	43		1	62.4			15	1	Hough et al. (1993)	–	15
2-Methylnaphthalene	3.7		1	5.37		5.0E-03	1.3	1	Hough et al. (1993)	N/A	1.3
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	230		0.54	180		5.0E-03	43	1	Hough et al. (1993)	3.0	43
Pyrene	17		0.514	12.7		5.0E-03	3.1	1	Hough et al. (1993)	4.1	3.1
Benz[a]anthracene	7.7		0.336	3.75		5.0E-03	0.9	1	Hough et al. (1993)	1.9	0.9
Chrysene	7.5		0.438	4.76		5.0E-03	1.1	1	Hough et al. (1993)	0.2	1.1
Benzo[b]fluoranthene	29		0.416	17.5		5.0E-03	4.2	1	Hough et al. (1993)	N/A	4.2
Benzo[k]fluoranthene	3.8		0.291	1.60		5.0E-03	0.4	1	Hough et al. (1993)	N/A	0.4
Benzo[a]pyrene	7.8		0.223	2.52		5.0E-03	0.6	1	Hough et al. (1993)	4.4E-02	0.6
Indeno[1,2,3-cd]pyrene	1.9		0.281	0.788		5.0E-03	0.2	1	Hough et al. (1993)	9.3E-03	0.2
Dibenz[a,h]anthracene	0.9		0.377	0.487		5.0E-03	0.1	1	Hough et al. (1993)	2.7E-03	0.1
Benzo[ghi]perylene	9.3		0.047	0.634		5.0E-03	0.2	1	Hough et al. (1993)	5.2E-02	0.2
Benzo[e]pyrene	3.4		0.223	1.10			0.3	1	Hough et al. (1993)	–	0.3
Phenols											
Phenol	4.5E-02		1	0.065		5.0E-03	1.7E-02	6	Schafer et al. (1983)	2.0E-03	2.8E-03
4-Methylphenol	8.2E-02		1	0.119		5.0E-03	3.0E-02	219	Hornshaw et al. (1986)*	N/A	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate	3		1	4.35	1.0E-02		1.1	1.1	Peakall (1974)	0.6	1.0
Miscellaneous Oxygenated Compounds											
Dibenzofuran	1.3		1	1.89		5.0E-03	0.5	N/A	N/A	N/A	N/A
Carbazole	0.5		1	0.682		5.0E-03	0.2	N/A	N/A	N/A	N/A

Table D-42. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Pesticides/Polychlorinated Biphenyls											
α-Chlordane	5.1E-03		2.07	0.0153		2.6E-05	3.7E-03	2.4	Stickel et al. (1983)	1.92E-05	1.5E-03
Chlordane isomers (sum)	5.1E-03		3.35	0.0247		2.6E-05	6.0E-03	2.4	Stickel et al. (1983)	N/A	2.5E-03
4,4'-DDD	4.7E-02		0.41	0.0279		5.0E-05	6.7E-03	0.0028	Anderson et al. (1975)	7.0E-02	2.4
DDT and metabolites (sum)	4.7E-02		0.41	0.0279			6.7E-03	0.0028	Anderson et al. (1975)	2.1	2.4
Aroclor 1016	0.2		1.48	0.386		5.0E-04	9.3E-02	0.18	Dahlgren et al. (1982)	1.5	0.5
Aroclor 1248	1.1		1.48	2.36		5.0E-04	0.6	0.18	Dahlgren et al. (1982)	9.0	3.2
Aroclor 1254	0.1		1.48	0.215		5.0E-04	5.2E-02	0.18	Dahlgren et al. (1982)	0.8	0.3
Aroclor 1260	1		1.48	2.15		5.0E-04	0.5	33.3	Call and Harrell (1974)	4.4E-02	1.6E-02
PCBs (sum)	2.1		1.48	4.51			1.1	0.18	Dahlgren et al. (1982)	8.4	6.0

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
* indicates that a mammalian TRV was used for screening due to lack of an avian one.
– indicates that a compound was not included in the Honeywell table

[a] The recommendations for the Oak Ridge Reservation (USDOE, 1998) were followed for metals (90th percentile BSAFs non-depurated organisms). All other BSAFs are from the US Army Corps of Engineers database or based on professional judgment. The following BSAFs were applied for metals with no BSAFs: chromium for selenium and aluminum; arsenic for antimony, beryllium, and vanadium; cadmium for barium; and lead for manganese and thallium.
[b] Actual total and methylmercury concentrations were measured in composites of benthic macroinvertebrates. The maximum benthic sample concentrations were therefore used in this food web screening, as opposed to applying biota-sediment accumulation factors to sediment values.
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.052 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.085 L/day (based on Calder and Braun, 1983)
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-43. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposure for the Tree Swallow (1992–1998)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Volatile Organic Compounds									
Aromatic Hydrocarbons									
Styrene	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Chlorinated Aromatic Hydrocarbons									
1,2,3-Trichlorobenzene	1.4	4.8	9.3		2.3	8	Cote et al. (1988)*	–	0.3
Halogenated Alkanes									
Chloromethane	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Bromomethane	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Chloroethane	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
1,1-Dichloroethane	1.7	1	2.5	5.0E-03	0.6	17.2	Almut et al. (1976)	N/A	3.5E-02
Chloroform	1.7	1	2.5	5.0E-03	0.6	15	Palmer et al. (1979)*	N/A	4.0E-02
1,2-Dichloroethane	1.7	1	2.5	5.0E-03	0.6	17.2	Almut et al. (1976)	2.4E-02	3.5E-02
1,1,1-Trichloroethane	1.7	1	2.5	5.0E-03	0.6	1,000	Lane et al. (1982)*	N/A	6.0E-04
Carbon tetrachloride	1.7	1	2.5	5.0E-03	0.6	16	Alumot et al. (1976)*	N/A	3.7E-02
Bromodichloromethane	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
1,2-Dichloropropane	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Dibromochloromethane	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	1.7	1	2.5	5.0E-03	0.6	1,000	Lane et al. (1982)*	N/A	6.0E-04
Bromoform	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Halogenated Alkenes									
Vinyl chloride	1.7	1	2.5	5.0E-03	0.6	0.17	Feron et al. (1981)*	N/A	3.5
1,1-Dichloroethene	1.7	1	2.5	5.0E-03	0.6	2.5	Quast et al. (1983)*	N/A	0.2
1,2-Dichloroethene isomers (total)	1.7	1	2.5	5.0E-03	0.6	2.5	Quast et al. (1983)*	N/A	0.2
cis-1,3-Dichloropropene	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropene	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Trichloroethene	1.7	1	2.5	5.0E-03	0.6	0.7	Buben and O'Flaherty (1985)*	N/A	0.9
Tetrachloroethene	1.7	1	2.5	5.0E-03	0.6	1.4	Buben and O'Flaherty (1985)*	N/A	0.4
Ketones									
2-Hexanone	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds									
Carbon disulfide	1.7	1	2.5	5.0E-03	0.6	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds									
Chlorinated Aromatic Hydrocarbons									
2-Chloronaphthalene	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Phenols									
2-Methylphenol	21	1	30	5.0E-03	7.3	219	Hornshaw et al. (1986)*	N/A	3.4E-02
2,4-Dimethylphenol	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Substituted Phenols									
2-Chlorophenol	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A

Table D-43. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
2,4-Dichlorophenol	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	50	1	73	1.3E-02	17	N/A	N/A	N/A	N/A
Pentachlorophenol	50	1	73	1.3E-02	17	0.24	Schwetz et al. (1978)	1.7	73
2-Nitrophenol	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
4-Nitrophenol	50	1	73	1.3E-02	17	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	50	1	73	1.3E-02	17	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol	50	1	73	1.3E-02	17	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons									
Hexachloroethane	21	1	30	5.0E-03	7.3	0.05	Tugarinova et al. (1960)*	N/A	147
Hexachlorobutadiene	21	1	30	5.0E-03	7.3	0.2	Kociba et al. (1977)*	N/A	37
Hexachlorocyclopentadiene	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Halogenated Ethers									
bis[2-chloroethyl]ether	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Phthalates									
Dimethyl phthalate	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Diethyl phthalate	21	1	30	5.0E-03	7.3	4,580	Lamb et al. (1987)*	N/A	1.6E-03
Di-*n*-butyl phthalate	21	1	30	5.0E-03	7.3	0.11	Peakall (1974)	4.0	67
Butylbenzyl phthalate	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Di-*n*-octyl phthalate	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds									
Isophorone	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
Organonitrogen Compounds									
Nitrobenzene	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
N-nitroso-di-*n*-propylamine	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
2-Nitroaniline	50	1	73	1.3E-02	17	N/A	N/A	N/A	N/A
3-Nitroaniline	50	1	73	1.3E-02	17	N/A	N/A	N/A	N/A
4-Nitroaniline	50	1	73	1.3E-02	17	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
4-Chloroaniline	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	21	1	30	5.0E-03	7.3	N/A	N/A	N/A	N/A

Table D-43. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Pesticides/Polychlorinated Biphenyls									
α-Hexachlorocyclohexane	7.5E-03	0.70	0.008	2.6E-05	1.8E-03	0.02	Sauter and Steele (1972)	3.5E-03	0.1
β-Hexachlorocyclohexane	7.5E-03	1.15	0.013	2.6E-05	3.0E-03	0.02	Sauter and Steele (1972)	3.5E-03	0.2
δ-Hexachlorocyclohexane	7.5E-03	1.15	0.013	2.6E-05	3.0E-03	0.02	Sauter and Steele (1972)	3.5E-03	0.2
γ-Hexachlorocyclohexane	7.5E-03	0.60	0.007	2.6E-05	1.6E-03	0.02	Sauter and Steele (1972)	3.5E-03	7.9E-02
Aldrin	7.5E-03	8.50	0.092	2.6E-05	2.2E-02	0.77	Mendenhall et al. (1983)	2.7E-03	2.9E-02
γ-Chlordane	7.5E-03	1.212	0.013	2.6E-05	3.2E-03	2.4	Stickel et al. (1983)	2.5E-05	1.3E-03
Dieldrin	1.5E-02	8.50	0.179	5.0E-05	4.3E-02	0.077	Mendenhall et al. (1983)	5.4E-02	0.6
α-Endosulfan	7.5E-03	2.7	0.029	2.6E-05	7.1E-03	50	Abiola (1992)	3.6E-05	1.4E-04
β-Endosulfan	1.5E-02	2.7	0.057	5.0E-05	1.4E-02	50	Abiola (1992)	7.2E-05	2.7E-04
Endosulfan sulfate	7.5E-03	2.7	0.029	5.0E-05	7.1E-03	11.1	Abiola (1992)	3.2E-04	6.4E-04
Heptachlor epoxide	1.5E-02	0.65	0.014	2.6E-05	3.3E-03	0.005	WHO (1984)	1.1E-03	0.7
4,4'-DDE	1.5E-02	0.94	0.0198	5.0E-05	4.8E-03	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	0.2	0.1
4,4'-DDT	1.5E-02	0.41	0.0086	5.0E-05	2.1E-03	0.0028	Anderson et al. (1975)	0.7	0.7
Endrin	1.5E-02	0.009	0.0002	5.0E-05	5.7E-05	0.01	Fleming et al. (1982)	1.1E-03	5.7E-03
Endrin aldehyde	1.5E-02	0.009	0.0002	5.0E-05	5.7E-05	0.01	Fleming et al. (1982)	0.4	5.7E-03
Endrin ketone	1.5E-02	0.009	0.0002	5.0E-05	5.7E-05	0.01	Fleming et al. (1982)	0.4	5.7E-03
Heptachlor	7.5E-03	N/A	N/A	2.6E-05	N/A	0.05	Wagstaff et al. (1980)	2.0E-07	N/A
Methoxychlor	7.5E-02	1.2	0.131	2.6E-04	3.2E-02	2	Hudson et al. (1984)	9.0E-03	1.6E-02
Toxaphene	0.8	N/A	N/A	2.6E-03	N/A	8	Kennedy et al. (1973)*	N/A	N/A
Aroclor 1221	0.3	1.48	0.63	1.1E-03	0.2	0.18	Dahlgren et al. (1982)	2.5	0.8
Aroclor 1232	0.2	1.48	0.36	5.0E-04	8.8E-02	0.18	Dahlgren et al. (1982)	1.4	0.5
Aroclor 1242	0.2	1.48	0.36	5.0E-04	8.8E-02	0.41	McLane and Hughes (1980)	0.6	0.2

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
* indicates that a mammalian TRV was used for screening due to lack of an avian one.
[a] BSAFs are from the US Army Corps of Engineers database or based on professional judgment
[b] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.052 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.085 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-44. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the Little Brown Bat (1992–1998)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Total Metals and Cyanide											
Aluminum	5,610		0.588	3,299	0.1		594	1.93	Ondreicka et al. (1966)	3.3	308
Antimony	6.4		0.675	4.3	2.6E-02		0.8	0.125	Schroeder et al. (1968)	2.8	6.3
Arsenic	11		0.675	7.6	1.1E-03		1.4	0.126	Schroeder and Mitchner (1971)	4.2	11
Barium	890		9.24	8,224	7.7E-02		1,480	5.1	Perry et al. (1983)	3.9	290
Beryllium	0.6		0.675	0.4		5.0E-04	0.1	0.66	Schroeder and Mitchner (1975)	14	0.1
Cadmium	14		9.24	131	2.9E-03		24	1	Sutou et al. (1980)	1.1	24
Calcium	349,000		N/A	N/A	181		N/A	N/A	N/A	N/A	N/A
Chromium	1,990		0.588	1,170	1.8E-02		211	3.28	Mackenzie et al. (1958)	1.3	64
Cobalt	88		3.15	277		2.0E-03	50	5	Nation et al. (1983)	0.1	10
Copper	173		3.872	670	5.1E-02		121	11.7	Aulerich et al. (1982)	0.7	10
Iron	34,200		3.15	107,730	0.4		19,391	N/A	N/A	N/A	N/A
Lead	251		0.946	237	1.8E-02		43	8	Azar et al. (1973)	0.3	5.3
Magnesium	17,300		N/A	N/A	27		N/A	N/A	N/A	N/A	N/A
Manganese	508		0.946	481	0.9		87	88	Laskey et al. (1982)	4.8E-02	1.0
Methylmercury	69		b	1.95	1.2E-05		0.4	0.015	Wobeser et al. (1976)	1.7	23
Mercury	69		b	5.0	5.9E-05		0.9	1	Aulerich et al. (1974)	0.3	0.9
Nickel	650		3.15	2,048	1.7E-02		369	40	Ambrose et al. (1976)	9.3E-03	9.2
Potassium	699		N/A	N/A	6.8		N/A	N/A	N/A	N/A	N/A
Selenium	1		0.588	0.6		5.0E-04	0.1	0.2	Rosenfeld and Beath (1954)	1.4	0.6
Silver	5		3.872	20		1.0E-03	3.6	18.1	Walker (1971)	0.2	0.2
Sodium	3,520		N/A	N/A	276		N/A	N/A	N/A	N/A	N/A
Thallium	0.65		0.946	0.6		2.5E-03	0.1	0.0074	Formigli et al. (1986)	2.7	15
Vanadium	101		0.675	68		2.0E-03	12	0.21	Domingo et al. (1986)	13	58
Zinc	276		8.465	2,336	0.1		421	160	Schlicker and Cox (1968)	0.2	2.6
Cyanide	35		N/A	N/A	0.2		N/A	68.7	Tewe and Maner (1981)	N/A	N/A
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	5.7		1	8.27	6.0E-02		1.5	26	Nawrot and Staples (1979)	3.2E-02	5.7E-02
Toluene	4.2		1	6.09	5.1E-03		1.1	26	Nawrot and Staples (1979)	2.3E-02	4.2E-02
Ethylbenzene	1.3		1	1.89	1.7E-03		0.3	26	Nawrot and Staples (1979)	7.2E-03	1.3E-02
Xylene isomers (total)	13		1	18.9	3.6E-03		3.4	2.1	Marks et al. (1982)	7.2E-02	1.6
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	43		3.86	241		5.0E-03	43	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	7.9		4.46	51.1	1.7E-03		9.2	250	Lake et al. (1997)	2.1E-02	3.7E-02
1,3-Dichlorobenzene	6.8		4.53	44.7	1.2E-03		8.0	250	Lake et al. (1997)	1.8E-02	3.2E-02
1,4-Dichlorobenzene	16		4.53	105	1.7E-03		19	250	Lake et al. (1997)	4.2E-02	7.6E-02
Dichlorobenzenes (sum)	23		4.53	150	4.6E-03		27	250	Lake et al. (1997)	7.3E-02	0.1
1,2,4-Trichlorobenzene	0.3		4.9	2.04	2.4E-03		0.4	8	Cote et al. (1988)	2.6E-02	4.6E-02
1,3,5-Trichlorobenzene	4.2		N/A	N/A	1.6E-03		N/A	8	Cote et al. (1988)	3.1E-05	N/A
Trichlorobenzenes (sum)	4.2		4.9	29.8	6.7E-03		5.4	8	Cote et al. (1988)	0.5	0.7
Halogenated Alkanes											
Methylene chloride	7.6E-02		1	0.110		5.0E-03	2.1E-02	5.85	NCA (1982)	2.3E-03	3.5E-03

Table D-44. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Ketones											
Acetone	1.1		1	1.60		5.0E-03	0.3	10	USEPA (1986)	1.8E-02	2.9E-02
2-Butanone	2.9		1	4.21		5.0E-03	0.8	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds											
Isopropanol	1.8E-02		1	0.026			4.7E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2,4,5-Tetrachlorobenzene	0.7		5.2	5.7			1.0	1.6	Grant et al. (1977)	0.3	0.6
Tetrachlorobenzene (mixed)	1			5.7			1.0	1.6	Grant et al. (1977)	–	0.6
Pentachlorobenzene	0.3		6.12	2.93			0.5	1.6	Grant et al. (1977)	0.1	0.3
Hexachlorobenzene	1.2		4.17	7.26		5.0E-03	1.3	0.05	Fassbender et al. (1977)	0.5	26
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	30		2.637	115		5.0E-03	21	1	Mackenzie and Angevine (1981)	N/A	21
Acenaphthylene	6.3		0.762	6.96		5.0E-03	1.3	1	Mackenzie and Angevine (1981)	N/A	1.3
Acenaphthene	15		0.108	2.35		5.0E-03	0.4	1	Mackenzie and Angevine (1981)	N/A	0.4
Fluorene	7.2		0.964	10.1		5.0E-03	1.8	1	Mackenzie and Angevine (1981)	1.2	1.8
Phenanthrene	22		0.304	9.70		5.0E-03	1.7	1	Mackenzie and Angevine (1981)	2.2	1.7
Anthracene	8.9		0.108	1.39		5.0E-03	0.3	1	Mackenzie and Angevine (1981)	1.3E-02	0.3
1-Methylnaphthalene	43		1	62.4			11	1	Mackenzie and Angevine (1981)	–	11
2-Methylnaphthalene	3.7		1	5.37		5.0E-03	1.0	1	Mackenzie and Angevine (1981)	N/A	1.0
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	230		0.54	180		5.0E-03	32	1	Mackenzie and Angevine (1981)	2.1	32
Pyrene	17		0.514	12.7		5.0E-03	2.3	1	Mackenzie and Angevine (1981)	2.8	2.3
Benz[a]anthracene	7.7		0.336	3.75		5.0E-03	0.7	1	Mackenzie and Angevine (1981)	1.3	0.7
Chrysene	7.5		0.438	4.76		5.0E-03	0.9	1	Mackenzie and Angevine (1981)	0.1	0.9
Benzo[b]fluoranthene	29		0.416	17.5		5.0E-03	3.1	1	Mackenzie and Angevine (1981)	N/A	3.1
Benzo[k]fluoranthene	3.8		0.291	1.60		5.0E-03	0.3	1	Mackenzie and Angevine (1981)	N/A	0.3
Benzo[a]pyrene	7.8		0.223	2.52		5.0E-03	0.5	1	Mackenzie and Angevine (1981)	3.1E-02	0.5
Indeno[1,2,3-cd]pyrene	1.9		0.281	0.788		5.0E-03	0.1	1	Mackenzie and Angevine (1981)	6.5E-03	0.1
Dibenz[a,h]anthracene	0.9		0.377	0.487		5.0E-03	8.8E-02	1	Mackenzie and Angevine (1981)	2.0E-03	8.8E-02
Benzo[ghi]perylene	9.3		0.047	0.634		5.0E-03	0.1	1	Mackenzie and Angevine (1981)	3.6E-02	0.1
Benzo[e]pyrene	3.4		0.223	1.10			0.2	1	Mackenzie and Angevine (1981)	–	0.2
Phenols											
Phenol	4.5E-02		1	0.065		5.0E-03	0.0126	523	NCI (1980)	1.6E-05	2.4E-05
4-Methylphenol	8.2E-02		1	0.119		5.0E-03	2.2E-02	219	Hornshaw et al. (1986)	N/A	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate	3		1	4.35	1.0E-02		0.8	18.3	Lamb et al. (1987)	2.7E-02	4.3E-02
Miscellaneous Oxygenated Compounds											
Dibenzofuran	1.3		1	1.89		5.0E-03	0.3	N/A	N/A	N/A	N/A
Carbazole	0.5		1	0.682		5.0E-03	0.1	N/A	N/A	N/A	N/A

Table D-44. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L unfiltered)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Pesticides/Polychlorinated Biphenyls											
α-Chlordane	5.1E-03		2.07	0.0153		2.6E-05	2.8E-03	0.075	FAO/WHO (1983)	7.0E-06	3.7E-02
Chlordane isomers (sum)	5.1E-03		3.35	0.0247		2.6E-05	4.4E-03	0.075	FAO/WHO (1983)	N/A	5.9E-02
4,4'-DDD	4.7E-02		0.41	0.0279		5.0E-05	5.0E-03	85	NCI (1978), as cited in ATSDR (1994)	1.6E-04	5.9E-05
DDT and metabolites (sum)	4.7E-02		0.41	0.0279			5.0E-03	0.8	Fitzhugh (1948)	1.7E-02	6.3E-03
Aroclor 1016	0.2		1.48	0.386		5.0E-04	7.0E-02	1.37	Bleavins et al. (1980)	0.1	0.1
Aroclor 1248	1.1		1.48	2.36		5.0E-04	0.4	0.01	Barsotti et al. (1976)	112	42
Aroclor 1254	0.1		1.48	0.215		5.0E-04	3.9E-02	0.0068	McCoy et al. (1995)	0.7	5.7
Aroclor 1260	1		1.48	2.15		5.0E-04	0.4	6.9	Linder et al. (1974)	0.1	0.1
PCBs (sum)	2.1		1.48	4.51			0.8	0.0068	McCoy et al. (1995)	16	119

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table

[a] The recommendations for the Oak Ridge Reservation (USDOE, 1998) were followed for metals (90th percentile BSAFs non-depurated organisms). All other BSAFs are from the US Army Corps of Engineers database or based on professional judgment. The following BSAFs were applied for metals with no BSAFs: chromium for selenium and aluminum; arsenic for antimony, beryllium, and vanadium; cadmium for barium; and lead for manganese and thallium.
[b] Actual total and methylmercury concentrations were measured in composites of benthic macroinvertebrates. The maximum benthic sample concentrations were therefore used in this food web screening, as opposed to applying biota-sediment accumulation factors to sediment values
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.052 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.085 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-45. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposure for the Little Brown Bat (1992–1998)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Volatile Organic Compounds									
Aromatic Hydrocarbons									
Styrene	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Chlorinated Aromatic Hydrocarbons									
1,2,3-Trichlorobenzene	1.4	4.8	9.3		1.7	8	Cote et al. (1988)	–	0.2
Halogenated Alkanes									
Chloromethane	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Bromomethane	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Chloroethane	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
1,1-Dichloroethane	1.7	1	2.5	5.0E-03	0.4	50	Lane et al. (1982)	N/A	N/A
Chloroform	1.7	1	2.5	5.0E-03	0.4	15	Palmer et al. (1979)	1.9E-02	3.0E-02
1,2-Dichloroethane	1.7	1	2.5	5.0E-03	0.4	50	Lane et al. (1982)	5.7E-03	8.9E-03
1,1,1-Trichloroethane	1.7	1	2.5	5.0E-03	0.4	1,000	Lane et al. (1982)	2.8E-04	4.4E-04
Carbon tetrachloride	1.7	1	2.5	5.0E-03	0.4	16	Alumot et al. (1976)	1.8E-02	2.8E-02
Bromodichloromethane	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
1,2-Dichloropropane	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Dibromochloromethane	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	1.7	1	2.5	5.0E-03	0.4	1,000	Lane et al. (1982)	N/A	4.4E-04
Bromoform	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Halogenated Alkenes									
Vinyl chloride	1.7	1	2.5	5.0E-03	0.4	0.17	Feron et al. (1981)	1.7	2.6
1,1-Dichloroethene	1.7	1	2.5	5.0E-03	0.4	2.5	Quast et al. (1983)	0.1	0.2
1,2-Dichloroethene isomers (total)	1.7	1	2.5	5.0E-03	0.4	2.5	Quast et al. (1983)	6.3E-03	0.2
cis -1,3-Dichloropropene	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
trans -1,3-Dichloropropene	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Trichloroethene	1.7	1	2.5	5.0E-03	0.4	0.7	Buben and O'Flaherty (1985)	0.4	0.6
Tetrachloroethene	1.7	1	2.5	5.0E-03	0.4	1.4	Buben and O'Flaherty (1985)	0.2	0.3
Ketones									
2-Hexanone	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Miscellaneous Volatile Compounds									
Carbon disulfide	1.7	1	2.5	5.0E-03	0.4	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds									
Chlorinated Aromatic Hydrocarbons									
2-Chloronaphthalene	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
Phenols									
2-Methylphenol	21	1	30	5.0E-03	5.5	219	Hornshaw et al. (1986)	1.6E-02	2.5E-02
2,4-Dimethylphenol	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A

Table D-45. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Substituted Phenols									
2-Chlorophenol	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	50	1	73	1.3E-02	13.1	N/A	N/A	N/A	N/A
Pentachlorophenol	50	1	73	1.3E-02	13.1	0.24	Schwetz et al. (1978)	35	54
2-Nitrophenol	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
4-Nitrophenol	50	1	73	1.3E-02	13	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	50	1	73	1.3E-02	13	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol	50	1	73	1.3E-02	13	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons									
Hexachloroethane	21	1	30	5.0E-03	5.5	0.05	Tugarinova et al. (1960)	N/A	N/A
Hexachlorobutadiene	21	1	30	5.0E-03	5.5	0.2	Kociba et al. (1977)	N/A	N/A
Hexachlorocyclopentadiene	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
Halogenated Ethers									
bis[2-chloroethyl]ether	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
Phthalates									
Dimethyl phthalate	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
Diethyl phthalate	21	1	30	5.0E-03	5.5	4,580	Lamb et al. (1987)	7.6E-04	1.2E-03
Di-*n*-butyl phthalate	21	1	30	5.0E-03	5.5	550	Lamb et al. (1987)	6.3E-03	1.0E-02
Butylbenzyl phthalate	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
Di-*n*-octyl phthalate	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds									
Isophorone	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
Organonitrogen Compounds									
Nitrobenzene	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
N-nitroso-di-*n*-propylamine	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
2-Nitroaniline	50	1	73	1.3E-02	13	N/A	N/A	N/A	N/A
3-Nitroaniline	50	1	73	1.3E-02	13	N/A	N/A	N/A	N/A
4-Nitroaniline	50	1	73	1.3E-02	13	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
4-Chloroaniline	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	21	1	30	5.0E-03	5.5	N/A	N/A	N/A	N/A

Table D-45. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L unfiltered)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Pesticides/Polychlorinated Biphenyls									
α-Hexachlorocyclohexane	7.5E-03	0.70	7.6E-03	2.6E-05	1.4E-03	8	Palmer et al. (1978)	1.1E-03	1.7E-04
β-Hexachlorocyclohexane	7.5E-03	1.15	1.3E-02	2.6E-05	2.3E-03	8	Palmer et al. (1978)	1.1E-03	2.8E-04
δ-Hexachlorocyclohexane	7.5E-03	1.15	1.3E-02	2.6E-05	2.3E-03	8	Palmer et al. (1978)	6.1E-04	2.8E-04
γ-Hexachlorocyclohexane	7.5E-03	0.60	6.5E-03	2.6E-05	1.2E-03	8	Palmer et al. (1978)	6.1E-04	1.5E-04
Aldrin	7.5E-03	8.50	9.2E-02	2.6E-05	1.7E-02	0.2	Treon and Cleveland (1955)	7.2E-03	8.3E-02
γ-Chlordane	7.5E-03	1.212	1.3E-02	2.6E-05	2.4E-03	0.075	FAO/WHO (1983)	9.3E-06	3.2E-02
Dieldrin	1.5E-02	8.50	0.179	5.0E-05	3.2E-02	0.018	Harr et al. (1970)	0.1	1.8
α-Endosulfan	7.5E-03	2.7	2.9E-02	2.6E-05	5.3E-03	0.15	Dikshith et al. (1984)	8.3E-03	3.5E-02
β-Endosulfan	1.5E-02	2.7	5.7E-02	5.0E-05	1.0E-02	0.15	Dikshith et al. (1984)	1.7E-02	6.8E-02
Endosulfan sulfate	7.5E-03	2.7	2.9E-02	5.0E-05	5.3E-03	0.15	Dikshith et al. (1984)	1.7E-02	3.5E-02
Heptachlor epoxide	1.5E-02	0.7	1.4E-02	2.6E-05	2.5E-03	0.075	Kinoshita and Kempf (1970)	3.22E-05	3.3E-02
4,4'-DDE	1.5E-02	0.94	2.0E-02	5.0E-05	3.6E-03	28	Gellert and Heinrich (1975), as cited in ATSDR (1994)	1.6E-04	1.3E-04
4,4'-DDT	1.5E-02	0.41	8.6E-03	5.0E-05	1.6E-03	0.8	Fitzhugh (1948)	5.5E-03	2.0E-03
Endrin	1.5E-02	0.009	1.9E-04	5.0E-05	4.3E-05	0.065	Treon et al. (1955)	8.4E-05	6.5E-04
Endrin aldehyde	1.5E-02	0.009	1.9E-04	5.0E-05	4.3E-05	0.065	Treon et al. (1955)	2.7E-02	6.5E-04
Endrin ketone	1.5E-02	0.009	1.9E-04	5.0E-05	4.3E-05	0.065	Treon et al. (1955)	2.7E-02	6.5E-04
Heptachlor	7.5E-03	N/A	N/A	2.6E-05	N/A	0.075	Kinoshita and Kempf (1970)	4.0E-05	N/A
Methoxychlor	7.5E-02	1.2	0.131	2.6E-04	2.4E-02	4	Gray et al. (1988)	3.1E-03	5.9E-03
Toxaphene	0.8	N/A	N/A	2.6E-03	N/A	8	Kennedy et al. (1973)	1.6E-02	N/A
Aroclor 1221	0.3	1.48	0.63	1.1E-03	0.1	0.01	Barsotti et al. (1976)	31	11
Aroclor 1232	0.2	1.48	0.36	5.0E-04	6.6E-02	0.01	Barsotti et al. (1976)	17	6.6
Aroclor 1242	0.2	1.48	0.36	5.0E-04	6.6E-02	0.069	Bleavins et al. (1980)	2.5	1.0

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
[a] BSAFs are from the US Army Corps of Engineers database or based on professional judgment
[b] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.052 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.085 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-46. Summary Statistics for Surface Water Collected from Onondaga Lake in 1999

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Chlorophyll-a	µg/L	59	59	6.2	12	11	29				
Hydrogen sulfide	µg/L	59	8	3,200	5,913	5,635	9,900	1,000	1,000	1,000	1,000
Sulfate	mg/L	43	43	145	182	181	197				
Sulfides	mg/L	59	8	5.2	11	11	20	1.0	1.0	1.0	1.0
Total alkalinity	mg/L	59	59	114	155	152	259				
Total suspended solids – 2540D-GF	mg/L-sus	59	59	1.3	2.9	2.9	5.5				
Total suspended solids – E2-GF	mg/L-sus	11	11	2.0	4.7	4.1	9.0				
Total suspended solids – 2540D-MF	mg/L-sus	59	49	0.3	2.6	1.8	12	0.1	0.1	0.1	0.1
Total suspended solids – E2-MF	mg/L-sus	11	11	3.0	5.2	4.6	9.0				
Solids – suspended volatile	mg/L										
Total Metals											
Chromium	µg/L	11	11	3.1	3.5	3.5	3.9				
Iron – dissolved	µg/L-dis	59	53	1.0	56	21	300	0.1	0.2	0.1	0.5
Iron	µg/L	58	58	23	117	88	596				
Lead	µg/L	11	1	3.1	3.1	3.1	3.1	1.6	1.6	1.6	1.6
Manganese – dissolved	µg/L-dis	59	58	2.0	105	27	604	3.0	3.0	3.0	3.0
Manganese	µg/L	67	67	14	138	89	601				
Methylmercury – dissolved	ng/L-dis	68	68	7.1E-02	1.8	0.8	15				
Methylmercury	ng/L	68	68	0.5	2.8	1.9	14				
Mercury – dissolved	ng/L-dis	68	68	0.8	4.4	2.6	24				
Mercury – total	ng/L	68	68	2.3	11	8.7	103				
Nickel	µg/L	11	11	3.5	4.0	4.0	4.7				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/L	11	2	0.1	3.2	0.8	6.3	0.5	0.5	0.5	0.5
Ethylbenzene	µg/L	11						0.5	0.5	0.5	0.5
Toluene	µg/L	11	1	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5
Styrene	µg/L	11						0.5	0.5	0.5	0.5
Xylene (Total)	µg/L	11	1	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.5
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/L	11	2	0.5	6.3	2.5	12	0.5	0.5	0.5	0.5
1,2-Dichlorobenzene	µg/L	11	3	0.1	1.2	0.4	3.2	0.5	0.5	0.5	0.5
1,4-Dichlorobenzene	µg/L	11	10	0.1	0.5	0.3	3.4	0.5	0.5	0.5	0.5

Table D-46. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Halogenated Alkanes											
Chloromethane	µg/L	11						1.0	1.0	1.0	1.0
Bromomethane	µg/L	11						1.0	1.0	1.0	1.0
Chloroethane	µg/L	11						1.0	1.0	1.0	1.0
Methylene chloride	µg/L	11						0.1	0.2	0.2	0.4
1,1-Dichloroethane	µg/L	11						0.5	0.5	0.5	0.5
Chloroform	µg/L	11	11	0.1	0.4	0.3	0.9				
1,2-Dichloroethane	µg/L	11						0.5	0.5	0.5	0.5
1,1,1-Trichloroethane	µg/L	11						0.5	0.5	0.5	0.5
Carbon tetrachloride	µg/L	11						0.5	0.5	0.5	0.5
Bromodichloromethane	µg/L	11	4	0.1	0.2	0.2	0.2	0.5	0.5	0.5	0.5
1,2-Dichloropropane	µg/L	11						0.5	0.5	0.5	0.5
Dibromochloromethane	µg/L	11						0.5	0.5	0.5	0.5
1,1,2-Trichloroethane	µg/L	11						0.5	0.5	0.5	0.5
Bromoform	µg/L	11						0.5	0.5	0.5	0.5
1,1,2,2-Tetrachloroethane	µg/L	11						0.5	0.5	0.5	0.5
Halogenated Alkenes											
Vinyl chloride	µg/L	11						1.0	1.0	1.0	1.0
1,1-Dichloroethene	µg/L	11						0.5	0.5	0.5	0.5
cis-1,2-dichloroethene	µg/L	11						0.5	0.5	0.5	0.5
trans-1,2-Dichloroethene	µg/L	11						0.5	0.5	0.5	0.5
cis-1,3-dichloropropene	µg/L	11						0.5	0.5	0.5	0.5
trans-1,3-dichloropropene	µg/L	11						0.5	0.5	0.5	0.5
Tetrachloroethene	µg/L	11						0.5	0.5	0.5	0.5
Ketones											
Acetone	mg/L	11									
2-Hexanone	µg/L	11						5.0	5.0	5.0	5.0
2-Butanone	µg/L	11						10	10	10	10
4-Methyl-2-pentanone	µg/L	11						5.0	5.0	5.0	5.0
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/L	11						0.5	0.5	0.5	0.5

Note: MDL – maximum detection limit

Table D-47. Summary Statistics for Surface Sediments (0–15 cm) Collected from Onondaga Lake in 2000

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Acid – volatile sulfide	mg/kg	15	15	84.6	2,161	1,187	6,890				
Total organic carbon	%-dw	157	157	1.2	8.3	7.4	46				
Total solids	%-ww	157	157	12	45	42	89				
Sulfides	mg/kg	15	15	330	1,982	1,521	4,700				
Carbonate	%-dw	21	21	57	62	62	70				
Ammonia – nitrogen	mg/kg	15	15	11	114	68	380				
Liquid limit	%-dw	6	6	0	29	35	41				
Plastic limit	%-dw	20	20	0	25	31	37				
Specific gravity	g/cc	19	19	2.4	2.5	2.5	2.7				
Grain-Size Determination											
Percent sand	%-ww	95	95	3	47	38	93				
Percent silt	%-ww	95	95	3	45	35	91				
Percent clay	%-ww	95	95	0	7.3	6.4	18				
Particles < 19.0 mm	%-dw	19	19	77	99	98	100				
Particles < 9.50 mm	%-dw	19	19	74	98	97	100				
Particles < 4.75 mm (sieve #4)	%-dw	19	19	72	96	96	100				
Particles < 2.00 mm (sieve #10)	%-dw	19	19	70	94	94	100				
Particles < 0.85 mm	%-dw	19	19	67	91	91	100				
Particles < 0.425 mm	%-dw	19	19	61	87	86	100				
Particles < 0.250 mm (sieve #60)	%-dw	19	19	54	82	80	99				
Particles < 0.106 mm	%-dw	19	19	30	74	71	96				
Particles < 0.075 mm	%-dw	19	19	17	71	66	95				
Particles < 0.074 mm (sieve #200)	%-dw	18	18	44	74	71	95				
Particles < 0.005 mm	%-dw	18	18	4.4	18	16	32				
Particles < 0.001 mm	%-dw	18	18	0	6.2	5.3	22				
Total Metals and Cyanide											
Aluminum	mg/kg	85	85	747	4,099	3,262	14,500				
Antimony	mg/kg	85	44	0.3	1.1	0.8	5.4	0.2	0.4	0.4	0.9
Arsenic	mg/kg	85	82	0.4	6.1	3.8	47	0.4	0.4	0.4	0.4
Barium	mg/kg	85	85	24	352	204	2,070				
Beryllium	mg/kg	85	84	5.3E-02	0.3	0.3	0.8	2.4E-02	2.4E-02	2.4E-02	2.4E-02
Cadmium	mg/kg	85	82	7.7E-02	2.0	1.0	15	4.4E-02	4.7E-02	4.7E-02	4.9E-02
Calcium	mg/kg	85	85	45,300	265,835	250,809	409,000				
Chromium	mg/kg	85	85	3.2	225	59	4,180				
Cobalt	mg/kg	85	85	0.2	11	4.0	170				
Copper	mg/kg	85	85	1.8	66	38	366				
Cyanide	mg/kg	85	9	0.9	2.3	1.9	6.4	0.6	1.1	1.1	2.3
Iron	mg/kg	85	85	1,780	10,794	7,709	50,800				

Table D-47. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Lead	mg/kg	85	85	0.7	93	39	750				
Magnesium	mg/kg	85	85	2,460	9,159	7,256	34,700				
Manganese	mg/kg	85	85	107	334	303	1190				
Methylmercury	µg/kg	87	87	3.2E-03	421	7.0	10,206				
Mercury	mg/kg	157	154	5.5E-02	8.0	2.8	78	4.5E-02	6.4E-02	6.1E-02	9.5E-02
Nickel	mg/kg	85	85	3.0	84	25	1,670				
Potassium	mg/kg	85	81	18	848	531	3,480	12	14	14	16
Selenium	mg/kg	85	49	0.5	1.6	1.4	5.9	0.5	1.0	0.9	1.7
Silver	mg/kg	85	53	0.1	1.4	0.8	6.1	8.5E-02	0.2	0.1	0.3
Sodium	mg/kg	85	85	383	2,909	2,275	11,900				
Thallium	mg/kg	85	6	0.9	1.4	1.2	2.9	0.56	1.1	1.0	2.2
Vanadium	mg/kg	85	85	1.8	24	11	319				
Zinc	mg/kg	85	85	10.8	122	91	421				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/kg	62	45	2.0	2,568	206	42,000	3.0	525	16	5,200
Toluene	µg/kg	62	30	3.2	1,939	472	8,300	3.0	858	30	6,400
Ethylbenzene	µg/kg	62	39	0.9	2,923	217	71,000	3.0	529	17	6,400
Styrene	µg/kg	62	12	340	1,379	1,027	4,800	3.0	787	47	6,400
Xylene (m, p)	µg/kg	25	14	2.1	14,780	417	100,000	6.2	10	9.6	16
Xylene (o)	µg/kg	25	10	5.2	6,643	1,053	23,000	6.2	11	10	22
Xylene (total)	µg/kg	37	29	3.0	23,978	1,122	330,000	3.0	1,503	50	6,400
Chlorobenzene	µg/kg	62	48	3.0	34,700	1,005	1,000,000	3.0	95.3	12	1,200
1,2-Dichlorobenzene	µg/kg	85	22	38	6,119	1,515	48,000	33	3,986	106	230,000
1,3-Dichlorobenzene	µg/kg	85	9	81	5,241	925	37,000	33	3,412	132	230,000
1,4-Dichlorobenzene	µg/kg	85	36	49	12,814	1,746	170,000	46	4,841	94	230,000
Dichlorobenzenes (sum)	µg/kg	85	39	49	16,490	1,840	239,000	46	5,141	90	230,000
1,2,4-Trichlorobenzene	µg/kg	85	7	330	6,810	1,914	35,000	33	3,320	132	230,000
Trichlorobenzenes (sum)	µg/kg	85	7	330	6,810	1,914	35,000	33	3,320	132	230,000
Halogenated Alkanes											
Chloromethane	µg/kg	62						6.2	2,572	159	15,000
Bromomethane	µg/kg	62						6.2	2,572	159	15,000
Chloroethane	µg/kg	62						6.2	2,572	159	15,000
Methylene chloride	µg/kg	62	7	4.2	2,643	442	8,000	4.0	2,287	126	14,000
1,1-Dichloroethane	µg/kg	62	7	7.4	185	25	1,200	3.0	1,611	126	14,000
Chloroform	µg/kg	62						3.0	1,450	105	14,000
1,2-Dichloroethane	µg/kg	62	1	138	138	138	138	3.0	1,469	104	14,000
1,1,1-Trichloroethane	µg/kg	62	1	2.7	2.7	2.7	2.7	3.0	1,474	110	14,000
Carbon tetrachloride	µg/kg	62						3.0	1,495	111	14,000
Bromodichloromethane	µg/kg	62						3.0	1,450	105	14,000

Table D-47. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
1,2-Dichloropropane	µg/kg	62						3.0	1,450	105	14,000
Dibromochloromethane	µg/kg	62						3.0	1,524	123	14,000
1,1,2-Trichloroethane	µg/kg	62						3.0	1,450	105	14,000
Bromoform	µg/kg	62						3.0	1,450	105	14,000
1,1,2,2-Tetrachloroethane	µg/kg	62						3.0	1,450	105	14,000
Halogenated Alkenes											
Vinyl chloride	µg/kg	62						6.2	2,572	159	15,000
1,1-Dichloroethene	µg/kg	62						3.0	1,450	105	14,000
Cis-1,2-dichloroethene	µg/kg	62	2	1	1.7	1.5	2.4	3.0	1,498	115	14,000
trans-1,2-Dichloroethene	µg/kg	62						3.0	1,450	105	14,000
Cis-1,3-dichloropropene	µg/kg	62						3.0	1,450	105	14,000
Trans-1,3-dichloropropene	µg/kg	62						3.0	1,385	97	14,000
Trichloroethene	µg/kg	62	2	1.7	2.9	2.6	4.0	3.0	1,498	115	14,000
Tetrachloroethene	µg/kg	62	2	2.0	2.5	2.4	3.0	3.0	1,498	115	14,000
Ketones											
Acetone	µg/kg	62	15	8.0	89	55	290	14	3,123	114	57,000
2-Hexanone	µg/kg	62						7.0	2,833	208	29,000
2-Butanone	µg/kg	62	24	2.0	22	13	94	12	3,121	141	29,000
4-Methyl-2-pentanone	µg/kg	62						7.0	2,911	210	29,000
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/kg	62	15	0.7	15	5.8	140	4.0	2,349	290	29,000
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/kg	85	53	1.1	183	18	6,750	1.0	532	6.7	11,000
2-Chloronaphthalene	µg/kg	85						33	3,142	141	230,000
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg	85	42	48	642,981	5,440	26,000,000	46	105	76	890
Acenaphthylene	µg/kg	85	30	65	1,344	497	19,000	33	4,472	117	230,000
Acenaphthene	µg/kg	85	20	70	5,789	727	85,000	33	3,846	132	230,000
Fluorene	µg/kg	85	25	58	7,638	922	140,000	33	4,086	113	230,000
Phenanthrene	µg/kg	85	53	60	22,374	1,047	630,000	51	273	106	3,400
Anthracene	µg/kg	85	35	54	4,542	645	95,000	51	4,952	143	230,000
2-Methylnaphthalene	µg/kg	85	31	34	94,913	2,395	2,800,000	33	101	75.6	890
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg	85	60	58	6,899	852	250,000	51	9,692	201	230,000
Pyrene	µg/kg	85	60	31	4,571	628	150,000	51	9,798	269	230,000
Benz(a)anthracene	µg/kg	85	51	40	3,245	507	100,000	51	7,190	182	230,000
Chrysene	µg/kg	85	52	45	3,256	565	100,000	51	7,406	188	230,000
Benzo(b)fluoranthene	µg/kg	85	47	40	2,187	456	57,000	51	6,502	196	230,000
Benzo(k)fluoranthene	µg/kg	85	48	40	2,246	433	60,000	51	6,676	203	230,000

Table D-47. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Benzo(a)pyrene	µg/kg	85	49	48	2,442	466	65,000	51	6,860	210	230,000
Indeno(1,2,3-cd)pyrene	µg/kg	85	41	35	1,619	363	38,000	51	5,710	198	230,000
Dibenz(a,h)anthracene	µg/kg	85	21	43	1,297	361	17,000	33	3,954	146	230,000
Benzo(g,h,i)perylene	µg/kg	85	40	47.5	1,651	399	35,000	51	5,585	193	230,000
Phenols											
Phenol	µg/kg	85	11	190	1,009	705	2,600	33	3,569	136	230,000
2-Methylphenol	µg/kg	85	2	235	668	508	1,100	33	3,213	141	230,000
4-Methylphenol	µg/kg	85	4	660	1,188	1,064	2,200	33	3,291	144	230,000
2,4-Dimethylphenol	µg/kg	85	1	990	990	990	990	170	16,578	720	1,200,000
Substituted Phenols											
2-Chlorophenol	µg/kg	85						33	3,142	141	230,000
2,4-Dichlorophenol	µg/kg	85						170	16,403	728	1,200,000
4-Chloro-3-methylphenol	µg/kg	85						170	16,403	728	1,200,000
2,4,6-Trichlorophenol	µg/kg	85						170	16,403	728	1,200,000
2,4,5-Trichlorophenol	µg/kg	85						170	16,403	728	1,200,000
Pentachlorophenol	µg/kg	85						850	82,061	3,649	6,000,000
2-Nitrophenol	µg/kg	85						170	16,403	728	1,200,000
4-Nitrophenol	µg/kg	85						850	82,061	3,649	6,000,000
2,4-Dinitrophenol	µg/kg	85						850	82,061	3,649	6,000,000
2-Methyl-4,6-dinitrophenol	µg/kg	85						850	82,061	3,649	6,000,000
Chlorinated Aliphatic Hydrocarbons											
Hexachlorobutadiene	µg/kg	85						33	3,142	141	230,000
Hexachlorocyclopentadiene	µg/kg	85						170	17,324	691	1,200,000
Bis(2-chloroethyl)ether	µg/kg	85						33	3,142	141	230,000
4-Chlorophenyl-phenyl ether	µg/kg	85						33	3,142	141	230,000
4-Bromophenyl-phenyl ether	µg/kg	85						33	3,142	141	230,000
Bis(2-chloroethoxy)methane	µg/kg	85						33	3,142	141	230,000
Phthalates											
Dimethylphthalate	µg/kg	85						33	3,142	141	230,000
Diethylphthalate	µg/kg	85						33	3,142	141	230,000
Di-n-butylphthalate	µg/kg	85	8	41	84	73	170	33	3,461	152	230,000
Butylbenzylphthalate	µg/kg	85						33	3,142	141	230,000
Bis(2-ethylhexyl)phthalate	µg/kg	85	37	55	1,241	616	5,100	33	5,466	221	230,000
Di-n-octylphthalate	µg/kg	85						33	3,142	141	230,000
Miscellaneous Oxygenated Compounds											
Isophorone	µg/kg	85						33	3,142	141	230,000
Benzyl alcohol	µg/kg	85						170	16,403	728	1,200,000
Dibenzofuran	µg/kg	85	19	70	6,042	874	81,000	33	3,769	124	230,000

Table D-47. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Carbazole	µg/kg	85	10	56	2,494	605	19,000	33	3,387	134	230,000
Organonitrogen Compounds											
Nitrobenzene	µg/kg	85						33	3,142	141	230,000
N-nitroso-di-n-propylamine	µg/kg	85						33	3,142	141	230,000
2-Nitroaniline	µg/kg	85						67	6,427	288	470,000
3-Nitroaniline	µg/kg	85						850	83,018	3,685	6,000,000
4-Nitroaniline	µg/kg	85						850	82,061	3,649	6,000,000
2,6-Dinitrotoluene	µg/kg	85						170	16,403	728	1,200,000
2,4-Dinitrotoluene	µg/kg	85						170	16,403	728	1,200,000
N-Nitrosodiphenylamine(1)	µg/kg	85						33	3,142	141	230,000
4-Chloroaniline	µg/kg	85	1	140	140	140	140	33	3,216	144	230,000
N-Nitrosodimethylamine	µg/kg	85						170	16,403	728	1,200,000
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg	84	10	1.1	3.9	2.9	13	1.0	1.1	1.1	1.1
β-Hexachlorocyclohexane	µg/kg	84	10	1.1	2.8	2.2	9.7	1.0	1.1	1.1	1.8
δ-Hexachlorocyclohexane	µg/kg	84	14	1.0	2.0	1.8	4.8	1.0	1.0	1.0	1.1
γ–Hexachlorocyclohexane	µg/kg	84	1	4.2	4.2	4.2	4.2	1.0	1.1	1.1	1.1
Hexachlorocyclohexanes (Sum)	µg/kg	84	27	1.0	3.7	2.7	13	1.0	1.1	1.1	1.1
Aldrin	µg/kg	84	3	1.6	2.3	2.2	3.5	1.0	1.3	1.2	6.1
α-Chlordane	µg/kg	84	13	1.2	3.8	2.7	15	1.0	1.1	1.1	1.1
Chlordane (sum)	µg/kg	84	26	1.1	8.7	3.9	50	1.0	1.1	1.1	1.1
Dieldrin	µg/kg	84	26	1.3	7.0	4.3	36	1.0	1.1	1.1	1.1
α-Endosulfan	µg/kg	84	4	3.6	5.9	5.6	8.7	1.0	1.1	1.1	1.1
β-Endosulfan	µg/kg	84						1.0	1.0	1.0	1.1
Endrin	µg/kg	84	15	0.9	2.2	1.8	8.4	1.0	1.1	1.1	1.1
Endrin aldehyde	µg/kg	84	7	1.2	2.3	2.1	3.5	1.0	1.1	1.1	1.1
Endrin ketone	µg/kg	84	5	1.0	11	3.1	49	1.0	1.1	1.1	1.1
Heptachlor	µg/kg	84	3	1.7	3.5	3.2	5.3	1.0	1.1	1.1	1.1
Heptachlor epoxide	µg/kg	84	25	0.8	7.9	4.4	52	1.0	1.1	1.1	1.1
Methoxychlor	µg/kg	84	4	1.7	2.8	2.6	4.0	1.0	1.1	1.1	1.1
4,4'-DDD	µg/kg	84	2	1.3	2.6	2.3	3.9	1.0	1.0	1.0	1.1
4,4'-DDE	µg/kg	84	29	1.1	4.7	3.1	21	1.0	1.0	1.0	1.1
4,4'-DDT	µg/kg	84	43	1.2	9.9	5.2	88	1.0	1.0	1.0	1.1
DDT and metabolites (sum)	µg/kg	84	57	1.1	10	5.0	88	1.0	1.0	1.0	1.1
Toxaphene	µg/kg	84						1.0	101	87	114
Aroclor 1016	µg/kg	115						50	132	78	1,500
Aroclor 1221	µg/kg	115	3	287	1,016	813	1,550	50	134	78	1,500

Table D-47. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Aroclor 1232	µg/kg	115						50	132	78	1,500
Aroclor 1242	µg/kg	115	77	11	944	218	18,800	50	68	58	500
Aroclor 1248	µg/kg	115	5	19	61.0	51	122	50	136	79	1,500
Aroclor 1254	µg/kg	115	83	11	189	89	1,270	50	128	74	1,500
Aroclor 1260	µg/kg	115	77	11	131	63	1,020	50	97	73	516
Aroclor 1268	µg/kg	115	4	19	66.5	45	170	50	135	79	1,500
PCBs (sum)	µg/kg	115	96	23	1,069	306	20,955	50	77	60	500
Dioxins/Furans											
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	15	15	2.3	58	26	268				
Total tetrachlorodibenzofurans	ng/kg	15	15	11	381	156	1,400				
2,3,7,8-Tetrachlorodibenzodioxin	ng/kg	15	12	0.2	2.0	1.0	11	9.5E-02	0.2	0.2	0.4
Total tetrachlorodibenzodioxins	ng/kg	15	15	1.2	43	20	223				
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	15	15	1.0	18	8.7	68				
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg	15	15	0.6	46	14	231				
Total pentachlorodibenzofurans	ng/kg	15	15	3.5	207	83	758				
1,2,3,7,8-Pentachlorodibenzodioxin	ng/kg	15	15	9.9E-02	4.0	1.6	20				
Total pentachlorodibenzodioxins	ng/kg	15	14	0.9	28	11	154	0.1	0.1	0.1	0.1
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg	15	15	2.1	28	14	97				
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg	15	15	0.6	7.8	4.2	34				
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg	15	15	0.1	3.6	1.9	14				
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg	15	10	0.3	1.9	1.1	7.4	0.1	0.4	0.3	1.1
Total hexachlorodibenzofurans	ng/kg	15	15	6.8	109	54	369				
1,2,3,4,7,8-Hexachlorodibenzodioxin	ng/kg	15	15	0.2	2.1	1.1	8.3				
1,2,3,6,7,8-Hexachlorodibenzodioxin	ng/kg	15	15	0.5	12	4.3	86				
1,2,3,7,8,9-Hexachlorodibenzodioxin	ng/kg	15	15	0.3	8.0	2.9	51				
Total hexachlorodibenzodioxins	ng/kg	15	15	2.3	109	29	942				
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg	15	14	3.9	53	26	240	7.8	7.8	7.8	7.8
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg	15	15	1.1	9.9	5.5	29				
Total heptachlorodibenzofurans	ng/kg	15	15	9.0	136	55	820				
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	ng/kg	15	15	4.4	161	39	1,430				
Octachlorodibenzofuran	ng/kg	15	15	6.6	147	68	604				
Octachlorodibenzodioxin	ng/kg	15	15	20	1,089	208	9,260				
Avian TEQ (1/2 DL)	ng/kg	15	15	4.7	117	50	524				
Mammalian TEQ (1/2 DL)	ng/kg	15	15	1.4	44	19	165				

Notes: TEQ – toxicity equivalent
MDL – maximum detection limit

Table D-48. Summary Statistics for Surface Sediments (0–15 cm) Collected from Otisco Lake in 2000

Analyte	Units	Number of Analyses	Number of Detected Value	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analysis											
Acid – volatile sulfide	mg/kg	2	2	11	33	25	55				
Ammonia-nitrogen	mg/kg	2	2	26	27	27	28				
Sulfides	mg/kg	2	2	111	241	203	370				
Total organic carbon	%-dw	2	2	6.6	13	11	19				
Total solids	%-ww	2	2	23	23	23	24				
Grain-Size Determination											
Percent sand	%-ww	2	2	19	39	33	58				
Percent silt	%-ww	2	2	32	50	47	68				
Percent clay	%-ww	2	2	10	12	11	13				
Total Metals and Cyanide											
Aluminum	mg/kg	2	2	11,800	12,750	12,715	13,700				
Antimony	mg/kg	2	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Arsenic	mg/kg	2	2	5.8	6.8	6.7	7.7				
Barium	mg/kg	2	2	145	167	166	189				
Beryllium	mg/kg	2	2	0.6	0.7	0.7	0.8				
Cadmium	mg/kg	2						0.1	0.1	0.1	0.1
Calcium	mg/kg	2	2	50,400	89,700	80,632	129,000				
Chromium	mg/kg	2	2	20	22	22	24				
Cobalt	mg/kg	2	2	4.5	6.0	5.8	7.4				
Copper	mg/kg	2	2	37	88	72	139				
Cyanide	mg/kg	2						2.0	2.1	2.0	2.1
Iron	mg/kg	2	2	16,200	18,500	18,356	20,800				
Lead	mg/kg	2	2	14	20	19	25				
Magnesium	mg/kg	2	2	4,860	6,265	6,105	7,670				
Manganese	mg/kg	2	2	1,160	1,170	1,170	1,180				
Methylmercury	µg/kg	2	2	0.3	0.9	0.7	1.4				
Mercury	mg/kg	2						0.1	0.1	0.1	0.1
Nickel	mg/kg	2	2	22	23	23	23				
Potassium	mg/kg	2	2	1,660	1,990	1,962	2,320				
Selenium	mg/kg	2	1	3.2	3.2	3.2	3.2	1.5	1.5	1.5	1.5
Silver	mg/kg	2						0.3	0.3	0.3	0.3
Sodium	mg/kg	2	2	293	344	340.2	395				
Thallium	mg/kg	2						2.0	2.0	2.0	2.0
Vanadium	mg/kg	2	2	20	22	22	24				
Zinc	mg/kg	2	2	82	83	83	84				

Table D-48. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Value	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Volatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,3-Dichlorobenzene	µg/kg	2						120	130	130	140
Dichlorobenzene (sum)	µg/kg										
1,2,4-Trichlorobenzene	µg/kg	2						120	130	130	140
Trichlorobenzenes (sum)	µg/kg										
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/kg	2						1.0	1.1	1.0	1.1
2-Chloronaphthalene	µg/kg	2						120	130	130	140
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg	2						120	130	130	140
Acenaphthylene	µg/kg	2						120	130	130	140
Acenaphthene	µg/kg	2						120	130	130	140
Fluorene	µg/kg	2						120	130	130	140
Phenanthrene	µg/kg	2						120	130	130	140
Anthracene	µg/kg	2						120	130	130	140
2-Methylnaphthalene	µg/kg	2						120	130	130	140
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg	2						120	130	130	140
Pyrene	µg/kg	2						120	130	130	140
Benz(a)anthracene	µg/kg	2						120	130	130	140
Chrysene	µg/kg	2						120	130	130	140
Benzo(b)fluoranthene	µg/kg	2						120	130	130	140
Benzo(k)fluoranthene	µg/kg	2						120	130	130	140
Benzo(a)pyrene	µg/kg	2						120	130	130	140
Indeno(1,2,3-cd)pyrene	µg/kg	2						120	130	130	140
Dibenz(a,h)anthracene	µg/kg	2						120	130	130	140
Benzo(g,h,i)perylene	µg/kg	2						120	130	130	140
Phenols											
Phenol	µg/kg	2						120	130	130	140
2-Methylphenol	µg/kg	2						120	130	130	140
4-Methylphenol	µg/kg	2						120	130	130	140
2,4-Dimethylphenol	µg/kg	2						620	675	673	730
Substituted Phenols											
2-Chlorophenol	µg/kg	2						120	130	130	140
2,4-Dichlorophenol	µg/kg	2						620	675	673	730
4-Chloro-3-methylphenol	µg/kg	2						620	675	673	730
2,4,6-Trichlorophenol	µg/kg	2						620	675	673	730
2,4,5-Trichlorophenol	µg/kg	2						620	675	673	730

Table D-48. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Value	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Pentachlorophenol	µg/kg	2						3,100	3,350	3,341	3,600
2-Nitrophenol	µg/kg	2						620	675	673	730
4-Nitrophenol	µg/kg	2						3,100	3,350	3,341	3,600
2,4-Dinitrophenol	µg/kg	2						3,100	3,350	3,341	3,600
2-Methyl-4,6-dinitrophenol	µg/kg	2						3,100	3,350	3,341	3,600
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg	2						120	130	130	140
Hexachlorobutadiene	µg/kg	2						120	130	130	140
Hexachlorocyclopentadiene	µg/kg	2						620	675	673	730
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/kg	2						120	130	130	140
2,2'-Oxybis(1-chloropropane)	µg/kg	2						120	130	130	140
4-Chlorophenyl-phenyl ether	µg/kg	2						120	130	130	140
4-Bromophenyl-phenyl ether	µg/kg	2						120	130	130	140
Bis(2-chloroethoxy)methane	µg/kg	2						120	130	130	140
Phthalates											
Dimethylphthalate	µg/kg	2						120	130	130	140
Diethylphthalate	µg/kg	2						120	130	130	140
Di-n-butylphthalate	µg/kg	2						140	165	163	190
Butylbenzylphthalate	µg/kg	2						120	130	130	140
Bis(2-ethylhexyl)phthalate	µg/kg	2						120	130	130	140
Di-n-octylphthalate	µg/kg	2						120	130	130	140
Miscellaneous Oxygenated Compounds											
Isophorone	µg/kg	2						120	130	130	140
Benzyl alcohol	µg/kg	2						620	675	673	730
Dibenzofuran	µg/kg	2						120	130	130	140
Carbazole	µg/kg	2						120	130	130	140
Organonitrogen Compounds											
Nitrobenzene	µg/kg	2						120	130	130	140
N-nitroso-di-n-propylamine	µg/kg	2						120	130	130	140
2-Nitroaniline	µg/kg	2						240	265	264	290
3-Nitroaniline	µg/kg	2						3,100	3,350	3,341	3,600
4-Nitroaniline	µg/kg	2						3,100	3,350	3,341	3,600
2,6-Dinitrotoluene	µg/kg	2						620	675	673	730
2,4-Dinitrotoluene	µg/kg	2						620	675	673	730
N-Nitrosodiphenylamine(1)	µg/kg	2						120	130	130	140
4-Chloroaniline	µg/kg	2						120	130	130	140
3,3-Dichlorobenzidine	µg/kg	2						120	130	130	140
N-Nitrosodimethylamine	µg/kg	2						620	675	673	730

Table D-48. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Value	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg	2						1.0	1.1	1.0	1.1
β-Hexachlorocyclohexane	µg/kg	2						1.0	1.1	1.0	1.1
δ-Hexachlorocyclohexane	µg/kg	2									
Aldrin	µg/kg	2						1.0	1.1	1.0	1.1
α-Chlordane	µg/kg	2						1.0	1.1	1.0	1.1
γ-Chlordane	µg/kg	2	1	1.2	1.2	1.2	1.2	1.0	1.0	1.0	1.0
Chlordane (sum)	µg/kg	2	1	1.2	1.2	6.4E-02	1.2	1.0	1.0	8.6E-03	1.0
Dieldrin	µg/kg	2						1.0	1.1	1.0	1.1
Aldrin and dieldrin (sum)	µg/kg										
β-Endosulfan	µg/kg	2						1.0	1.0	1.0	1.0
Endosulfan sulfate	µg/kg	2						1.0	1.0	1.0	1.0
Endosulfan (sum of alpha- and beta-)	µg/kg										
Endrin	µg/kg	2						1.0	1.1	1.0	1.1
Endrin aldehyde	µg/kg	2						1.0	1.1	1.0	1.1
Heptachlor	µg/kg	2						1.0	1.1	1.0	1.1
Heptachlor epoxide	µg/kg	2	1	1.4	1.4	1.4	1.4	1.0	1.0	1.0	1.0
Heptachlor and heptachlor epoxide (sum)	µg/kg										
Methoxychlor	µg/kg	2						1.0	1.1	1.0	1.1
4,4'-DDE	µg/kg	2	1	1.7	1.7	1.7	1.7	1.0	1.0	1.0	1.0
4,4'-DDT	µg/kg	2	1	2.5	2.5	2.5	2.5	1.0	1.0	1.0	1.0
DDT and metabolites (sum)	µg/kg										
Toxaphene	µg/kg	2						102	105	105	108
Aroclor 1016	µg/kg	2						51	53	53	54
Aroclor 1221	µg/kg	2						51	53	53	54
Aroclor 1232	µg/kg	2						51	53	53	54
Aroclor 1242	µg/kg	2						51	53	53	54
Aroclor 1248	µg/kg	2						51	53	53	54
Aroclor 1254	µg/kg	2						51	53	53	54
Aroclor 1260	µg/kg	2	1	97	97	97	97	51	51	51	51
Aroclor 1268	µg/kg	2						51	53	53	54
PCBs (sum)	µg/kg	2	1	124	124	124	124	51	51	51	51

Note: MDL – maximum detection limit

Table D-49. Summary Statistics for Wetland Soil (0-15 cm) Collected Near Onondaga Lake in 2000 and 2002

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Total organic carbon	%-dw	16	16	4.8	13	12	28				
Total solids	%-ww	16	16	22	53	50	83				
Grain-Size Determination											
Percent sand	%-ww	16	16	16	60	53	94				
Percent silt	%-ww	16	16	5.0	33	24	70				
Percent clay	%-ww	16	16	1.0	7.3	6.0	18				
Total Metal and Cyanide											
Aluminum	mg/kg	26	26	634	5,351	4,454	13,700				
Antimony	mg/kg	26	10	0.3	0.8	0.7	2.2	0.2	0.4	0.4	0.9
Arsenic	mg/kg	26	26	0.5	4.1	3.1	18				
Barium	mg/kg	26	26	31	149	131	390				
Beryllium	mg/kg	26	21	0.2	0.5	0.4	1.2	0.1	0.2	0.2	0.5
Cadmium	mg/kg	26	26	0.2	2.7	1.5	14				
Calcium	mg/kg	26	26	37,600	185,688	159,521	336,000				
Chromium	mg/kg	26	26	9.3	45	34	154				
Cobalt	mg/kg	26	26	1.1	3.8	3.3	8.5				
Copper	mg/kg	26	26	9.5	51	39	167				
Cyanide	mg/kg	16	1	5.4	5.4	5.4	5.4	0.6	1.1	1.0	2.3
Iron	mg/kg	26	26	1,920	10,669	8,943	32,400				
Lead	mg/kg	26	26	12	82	60	259				
Magnesium	mg/kg	26	26	2,340	7,783	6,695	17,000				
Manganese	mg/kg	26	26	156	270	259	488				
Mercury	mg/kg	26	25	0.1	3.4	1.2	25	3.5E-02	3.5E-02	3.5E-02	3.5E-02
Nickel	mg/kg	26	26	5.5	27	22	75				
Potassium	mg/kg	26	26	165	908	763	2,160				
Selenium	mg/kg	26	7	0.9	1.6	1.5	2.5	0.4	1.0	0.9	2.1
Silver	mg/kg	26	17	0.2	0.8	0.5	2.7	0.1	0.2	0.2	0.3
Sodium	mg/kg	26	26	242	1,328	1,072	3,420				
Thallium	mg/kg	26	6	0.6	1.6	1.4	2.5	0.2	0.9	0.8	2.2
Vanadium	mg/kg	26	26	1.6	13	11	36				
Zinc	mg/kg	26	26	23	140	110	510				
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	µg/kg	12	3	3.9	23	10	60	5.6	7.9	7.7	11
Toluene	µg/kg	12	1	1.7	1.7	1.7	2	5.6	11	9.5	39

Table D-49. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Ethylbenzene	µg/kg	12	3	7.0	13	11	24	5.6	7.9	7.7	11
Styrene	µg/kg	12	1	5.7	5.7	5.7	6	5.6	8.7	8.3	15
Xylene (m, p)	µg/kg	12						5.6	11	9.1	36
Xylene (o)	µg/kg	12						5.6	8.8	8.5	15
Xylene (Total)	µg/kg	12						5.6	8.8	8.5	15
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	µg/kg	12	5	2.0	160	40	600	5.6	8.1	7.9	11
1,2-Dichlorobenzene	µg/kg	26	4	610.0	3,003	2,292	4,900	39	743	252	6,300
1,3-Dichlorobenzene	µg/kg	26	3	62	617	327	1,380	39	747	265	6,300
1,4-Dichlorobenzene	µg/kg	26	5	54	4,645	1,771	9,800	39	776	274	6,300
Dichlorobenzene (sum)	µg/kg	26	5	54	7,417	2,612	14,700	39	776	274	6,300
1,2,4-Trichlorobenzene	µg/kg	26	4	200	2,838	1,556	6,550	39	743	252	6,300
Trichlorobenzenes (Sum)	µg/kg	26	4	200	2,838	1,556	6,550	39	743	252	6,300
Halogenated Alkanes											
Chloromethane	µg/kg	12						5.6	8.8	8.5	15
Bromomethane	µg/kg	12						5.6	8.8	8.5	15
Chloroethane	µg/kg	12						5.6	8.8	8.5	15
Methylene chloride	µg/kg	12	2	1.3	1.7	1.7	2	5.6	9.2	8.9	15
1,1-Dichloroethane	µg/kg	12						5.6	8.8	8.5	15
Chloroform	µg/kg	12						5.6	8.8	8.5	15
1,2-Dichloroethane	µg/kg	12						5.6	8.8	8.5	15
1,1,1-Trichloroethane	µg/kg	12						5.6	8.8	8.5	15
Carbon tetrachloride	µg/kg	12						5.6	8.8	8.5	15
Bromodichloromethane	µg/kg	12						5.6	8.8	8.5	15
1,2-Dichloropropane	µg/kg	12						5.6	8.8	8.5	15
Dibromochloromethane	µg/kg	12						5.6	8.8	8.5	15
1,1,2-Trichloroethane	µg/kg	12						5.6	8.8	8.5	15
Bromoform	µg/kg	12						5.6	8.8	8.5	15
1,1,2,2-Tetrachloroethane	µg/kg	12						5.6	8.8	8.5	15
Halogenated Alkenes											
Vinyl chloride	µg/kg	12						5.6	8.8	8.5	15
1,1-Dichloroethene	µg/kg	12						5.6	8.8	8.5	15
cis-1,2-dichloroethene	µg/kg	12						5.6	8.8	8.5	15
trans-1,2-Dichloroethene	µg/kg	12						5.6	8.8	8.5	15
cis-1,3-dichloropropene	µg/kg	12						5.6	8.8	8.5	15
trans-1,3-dichloropropene	µg/kg	12						5.6	8.8	8.5	15
Trichloroethene	µg/kg	12						5.6	8.8	8.5	15
Tetrachloroethene	µg/kg	12						5.6	8.8	8.5	15

Table D-49. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Ketones											
Acetone	µg/kg	12	1	16	16	16	16	20	35	33	63
2-Butanone	µg/kg	12	3	4.2	5.1	5.1	6	11	16	16	23
2-Hexanone	µg/kg	12						11	18	17	30
4-Methyl-2-pentanone	µg/kg	12						11	18	17	30
Miscellaneous Volatile Compounds											
Carbon disulfide	µg/kg	12						11	18	17	30
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/kg	26	12	2.7	669	50	5,355	1.1	1,099	283	6,300
2-Chloronaphthalene	µg/kg	26						39	679	243	6,300
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg	26	5	340	3,518	2,329	7,600	39	479	216	1,900
Acenaphthylene	µg/kg	26	11	79	1,207	472	7,500	39	400	187	1,500
Acenaphthene	µg/kg	26	6	78	1,589	446	6,300	39	500	233	1,900
Fluorene	µg/kg	26	8	71	1,985	391	12,000	39	397	191	1,500
Phenanthrene	µg/kg	26	22	60	4,657	566	63,000	39	524	227	1,500
Anthracene	µg/kg	26	13	94	2,689	640	18,000	39	399	182	1,500
2-Methylnaphthalene	µg/kg	26	4	330	1,911	999	5,600	39	459	203	1,900
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg	26	24	59	6,399	944	86,000	39	69	62	98
Pyrene	µg/kg	26	24	72	5,773	903	83,000	39	69	62	98
Benz(a)anthracene	µg/kg	26	21	130	3,759	654	49,000	39	430	168	1,500
Chrysene	µg/kg	26	24	50	3,421	593	48,000	39	69	62	98
Benzo(b)fluoranthene	µg/kg	26	21	110	4,162	711	59,000	39	430	168	1,500
Benzo(k)fluoranthene	µg/kg	26	19	94	2,376	571	22,000	39	621	284	1,500
Benzo(a)pyrene	µg/kg	26	21	130	3,700	682	48,000	39	430	168	1,500
Indeno(1,2,3-cd)pyrene	µg/kg	26	19	90	2,390	499	28,000	39	432	187	1,500
Dibenz(a,h)anthracene	µg/kg	26	9	66	1,485	465	7,900	39	526	257	1,900
Benzo(g,h,i)perylene	µg/kg	26	19	93	2,344	512	28,000	39	432	187	1,500
Phenols											
Phenol	µg/kg	26	4	89	1,024	542	2,825	39	495	230	1,900
2-Methylphenol	µg/kg	26						39	679	243	6,300
4-Methylphenol	µg/kg	26	4	100	477	301	1,100	39	454	202	1,900
2,4-Dimethylphenol	µg/kg	26	1	820	820	820	820	200	863	608	4,300

Table D-49. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Substituted Phenols											
2-Chlorophenol	µg/kg	26						39	679	243	6,300
2,4-Dichlorophenol	µg/kg	26						200	1,072	665	6,300
4-Chloro-3-methylphenol	µg/kg	26						200	1,072	665	6,300
2,4,6-Trichlorophenol	µg/kg	26						200	1,072	665	6,300
2,4,5-Trichlorophenol	µg/kg	26						200	1,676	871	13,000
Pentachlorophenol	µg/kg	26						840	3,626	2,336	21,000
2-Nitrophenol	µg/kg	26						200	1,072	665	6,300
4-Nitrophenol	µg/kg	26						840	3,626	2,336	21,000
2,4-Dinitrophenol	µg/kg	26						840	3,626	2,336	21,000
2-Methyl-4,6-dinitrophenol	µg/kg	26						840	3,626	2,336	21,000
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg	26						39	679	243	6,300
Hexachlorobutadiene	µg/kg	26						39	679	243	6,300
Hexachlorocyclopentadiene	µg/kg	26						200	1,072	665	6,300
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/kg	26						39	679	243	6,300
2,2'-Oxybis(1-chloropropane)	µg/kg	26						39	679	243	6,300
Bis(2-chloroethoxy)methane	µg/kg	26						39	679	243	6,300
4-Chlorophenyl-phenyl ether	µg/kg	26						39	679	243	6,300
4-Bromophenyl-phenyl ether	µg/kg	26						39	679	243	6,300
Phthalates											
Dimethylphthalate	µg/kg	26						39	679	243	6,300
Diethylphthalate	µg/kg	26						39	679	243	6,300
Di-n-butylphthalate	µg/kg	26	1	170	170	170	170	39	653	237	6,300
Butylbenzylphthalate	µg/kg	26						39	679	243	6,300
Bis(2-ethylhexyl)phthalate	µg/kg	26	7	130	815	553	1,800	71	758	300	6,300
Di-n-octylphthalate	µg/kg	26						39	679	243	6,300
Miscellaneous Oxygenated Compounds											
Isophorone	µg/kg	26						39	679	243	6,300
Benzyl alcohol	µg/kg	16						200	794	495	4,300
Dibenzofuran	µg/kg	26	4	46	2,457	657	7,600	39	471	222	1,900
Carbazole	µg/kg	26	6	89	1,723	607	6,600	39	500	233	1,900
Organonitrogen Compounds											
Nitrobenzene	µg/kg	26						39	679	243	6,300
N-nitroso-di-n-propylamine	µg/kg	26						39	679	243	6,300

Table D-49. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
2-Nitroaniline	µg/kg	26						79	1,380	491	13,000
3-Nitroaniline	µg/kg	26						840	3,626	2,336	21,000
4-Nitroaniline	µg/kg	26						840	3,626	2,336	21,000
2,6-Dinitrotoluene	µg/kg	26						200	1,072	665	6,300
2,4-Dinitrotoluene	µg/kg	26						200	1,072	665	6,300
N-Nitrosodiphenylamine	µg/kg	26						39	679	243	6,300
4-Chloroaniline	µg/kg	26						39	679	243	6,300
3,3-Dichlorobenzidine	µg/kg	26						39	679	243	6,300
N-Nitrosodimethylamine		16						200	794	495	4,300
Pesticides/Polychlorinated Biphenyls	µg/kg										
α-Hexachlorocyclohexane	µg/kg	16	1	2.5	2.5	2.5	2.5	1.0	1.1	1.1	1.1
β-Hexachlorocyclohexane	µg/kg	16	2	1.7	3.7	3.1	5.6	1.0	1.1	1.1	1.1
δ-Hexachlorocyclohexane	µg/kg	16	4	1.7	2.4	2.3	3.1				
γ-Hexachlorocyclohexane (lindane)	µg/kg	16	3	1.3	3.0	2.3	6.3	1.0	1.1	1.1	1.1
Hexachlorocyclohexanes (Sum)	µg/kg	16	5	1.7	5.7	4.4	10	1.0	1.1	1.1	1.1
Aldrin	µg/kg	16	3	21	31	30	45	1.0	1.4	1.2	5.4
α-Chlordane	µg/kg	16	4	3.0	5.7	4.9	11	1.0	1.1	1.1	1.1
γ-Chlordane	µg/kg	16	6	2.3	7.8	6.1	19	1.0	1.1	1.1	1.1
Chlordane (sum)	µg/kg	16	6	2.3	12	8.3	30	1.0	1.1	1.1	1.1
Dieldrin	µg/kg	16	7	2.6	12	7.8	24	1.0	1.1	1.1	1.1
α-Endosulfan	µg/kg	16	2	8.8	9.9	9.8	11	1.0	1.1	1.1	1.1
β-Endosulfan	µg/kg	16						1.0	1.1	1.1	1.1
Endosulfan sulfate	µg/kg	16									
Endrin	µg/kg	16						1.0	1.1	1.1	1.1
Endrin aldehyde	µg/kg	16	1	2.1	2.1	2.1	2.1	1.0	1.1	1.1	1.1
Heptachlor	µg/kg	16						1.0	1.1	1.1	1.1
Heptachlor epoxide	µg/kg	16	7	2.2	5.3	4.2	15	1.0	1.1	1.1	1.1
Methoxychlor	µg/kg	16						1.0	1.1	1.1	1.1
4,4'-DDE	µg/kg	16	5	1.3	5.6	3.7	17	1.0	1.1	1.1	1.1
4,4'-DDT	µg/kg	16	13	1.2	13	4.8	51	1.1	1.1	1.1	1.1
DDT and metabolites (Sum)	µg/kg	16	14	1.2	14	5.7	56	1.1	1.1	1.1	1.1
Toxaphene	µg/kg	16						101	106	106	109
Aroclor 1016	µg/kg	16						52	53	53	55
Aroclor 1221	µg/kg	16						52	53	53	55
Aroclor 1232	µg/kg	16						52	53	53	55
Aroclor 1242	µg/kg	16	9	16	146	63	541	52	54	54	55

Table D-49. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Aroclor 1248	µg/kg	16						52	53	53	55
Aroclor 1254	µg/kg	16	13	14	140	65	483	53	54	54	55
Aroclor 1260	µg/kg	16	13	12	136	80	576	52	53	53	54
Aroclor 1268	µg/kg	16						52	53	53	55
PCBs (sum)	µg/kg	16	16	28	315	157	1,071				
Dioxins/Furans											
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	12	12	1.9	151	26	879				
Total tetrachlorodibenzofurans	ng/kg	12	12	24	942	191	4,695				
2,3,7,8-Tetrachlorodibenzodioxin	ng/kg	12	12	0.2	7.5	1.4	56				
Total tetrachlorodibenzodioxins	ng/kg	12	12	4.7	414	42	3,455				
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	12	12	0.4	76	10	475				
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg	12	12	0.7	134	13	711				
Total pentachlorodibenzofurans	ng/kg	12	12	8.7	584	108	3,105				
1,2,3,7,8-Pentachlorodibenzodioxin	ng/kg	12	9	0.4	58	7.3	348	0.3	0.4	0.4	0.6
Total pentachlorodibenzodioxins	ng/kg	12	12	1.2	417	21	3,450				
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg	12	12	0.6	94	16	464				
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg	12	12	0.6	28	6.5	133				
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg	12	12	0.7	10	3.7	43				
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg	12	4	2.5	7.3	6.3	11	0.2	0.5	0.4	1.5
Total hexachlorodibenzofurans	ng/kg	12	12	6.1	253	78	1,185				
1,2,3,4,7,8-Hexachlorodibenzodioxin	ng/kg	12	12	0.3	35	3.1	298				
1,2,3,6,7,8-Hexachlorodibenzodioxin	ng/kg	12	12	0.9	83	10	652				
1,2,3,7,8,9-Hexachlorodibenzodioxin	ng/kg	12	12	0.9	44	7.2	340				
Total hexachlorodibenzodioxins	ng/kg	12	12	8.1	505	76	4,030				
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg	12	12	5.3	79	38	337				
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg	12	12	0.4	19	6.3	75				
Total heptachlorodibenzofurans	ng/kg	12	12	10	158	83	629				
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	ng/kg	12	12	17	260	93	1,615				
Total heptachlorodibenzodioxins	ng/kg	12	12	32	456	177	2,785				
Octachlorodibenzofuran	ng/kg	12	12	6.8	176	85	704				
Octachlorodibenzodioxin	ng/kg	12	12	95	743	480	2,360				
Avian TEQ (1/2 DL)	ng/kg	12	12	3.6	366	54	2,168				
Mammalian TEQ (1/2 DL)	ng/kg	12	12	1.8	171	24	1,086				

Notes: TEQ – toxicity equivalent
MDL – maximum detection limit

Table D-50. Summary Statistics for Soil Collected from the Dredge Spoils Area near Onondaga Lake in 2000

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Total organic carbon	%-dw	40	40	1.8	8.6	7.4	21				
Total solids	%-ww	41	41	40	70	69	92				
Grain-Size Determination											
Percent sand	%-ww	40	40	0	29	23	81				
Percent silt	%-ww	40	40	14	56	53	88				
Percent clay	%-ww	40	40	6.0	15	14	23				
Total Metals and Cyanide											
Aluminum	mg/kg	41	41	1,010	7,389	6,289	23,300				
Antimony	mg/kg	41	31	0.2	0.5	0.4	1.3	0.2	0.3	0.3	0.5
Arsenic	mg/kg	41	41	0.6	6.4	5.4	13				
Barium	mg/kg	41	41	49	87	84	227				
Beryllium	mg/kg	41	41	8.6E-02	0.5	0.4	1.0				
Cadmium	mg/kg	41	21	7.0E-02	0.8	0.6	4.3	3.1E-02	3.6E-02	3.6E-02	6.2E-02
Calcium	mg/kg	41	41	25,800	203,922	169,067	357,000				
Chromium	mg/kg	41	41	2.8	20	17	62				
Cobalt	mg/kg	41	41	0.2	3.5	3.0	8.2				
Copper	mg/kg	41	41	1.8	28	22	62				
Iron	mg/kg	41	41	1,330	10,654	9,062	29,600				
Lead	mg/kg	41	40	2.5	28	20	157	0.3	0.3	0.3	0.3
Magnesium	mg/kg	41	41	3,010	9,614	8,689	19,000				
Manganese	mg/kg	41	41	106	270	262	440				
Mercury	mg/kg	41	37	5.2E-02	24	2.4	99	3.1E-02	3.5E-02	3.4E-02	4.2E-02
Nickel	mg/kg	41	41	1.8	20	16	50				
Potassium	mg/kg	41	41	220	1,798	1,337	5,750				
Selenium	mg/kg	41	38	0.5	1.0	0.9	2.1	1.1	1.1	1.1	1.1
Silver	mg/kg	41	5	0.1	0.3	0.2	0.9	8.2E-02	0.1	0.1	0.2
Sodium	mg/kg	41	41	214	2,163	1,117	13,000				
Thallium	mg/kg	41	1	0.8	0.8	0.8	0.8	0.5	0.7	0.7	1.2
Vanadium	mg/kg	41	41	1.7	15	13	41				
Zinc	mg/kg	41	41	12	66	54	186				
Cyanide	mg/kg	41	8	0.9	1.1	1.1	1.3	0.6	0.7	0.7	1.2
Volatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
1,2-Dichlorobenzene	µg/kg	40	4	51	73	71	97	36	75	57	500
1,3-Dichlorobenzene	µg/kg	40	5	79	110	108	130	36	74	56	500
1,4-Dichlorobenzene	µg/kg	40						36	72	57	500
Dichlorobenzenes (sum)	µg/kg	40	7	51	120	111	207	36	76	57	500
1,2,4-Trichlorobenzene	µg/kg	40						36	72	57	500
Trichlorobenzenes (sum)	µg/kg	40						36	72	57	500
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	µg/kg	40	9	40	237	170	490	36	79	59	500
2-Chloronaphthalene	µg/kg	40						36	72	57	500

Table D-50. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	µg/kg	40	3	85	3,246	789	9,014	36	55	51	225
Acenaphthylene	µg/kg	40	1	110	110	110	110	36	73	57	500
Acenaphthene	µg/kg	40	4	33	417	182	1,200	36	58	52	303
Fluorene	µg/kg	40	5	30	261	120	800	36	59	53	303
Phenanthrene	µg/kg	40	22	50	934	204	9,500	36	62	52	303
Anthracene	µg/kg	40	7	53	503	213	1,900	36	59	53	303
2-Methylnaphthalene	µg/kg	40						36	72	57	500
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	µg/kg	40	34	38	1,462	218	32,000	38	44	44	50
Pyrene	µg/kg	40	31	53	1,331	220	25,000	36	43	43	50
Benz(a)anthracene	µg/kg	40	20	47	1,530	205	22,000	36	62	53	303
Chrysene	µg/kg	40	26	41	1,364	175	25,000	36	67	55	303
Benzo(b)fluoranthene	µg/kg	40	22	53	1,251	181	20,000	36	62	51	303
Benzo(k)fluoranthene	µg/kg	40	20	56	1,371	201	20,000	36	61	52	303
Benzo(a)pyrene	µg/kg	40	23	44	1,396	186	23,000	36	63	53	303
Indeno(1,2,3-cd)pyrene	µg/kg	40	15	47	1,019	191	11,000	36	60	52	303
Dibenz(a,h)anthracene	µg/kg	40	5	48	1,324	415	5,200	36	59	53	303
Benzo(g,h,i)perylene	µg/kg	40	15	51	1,052	203	11,000	36	60	52	303
Phenols											
Phenol	µg/kg	40						36	72	57	500
2-Methylphenol	µg/kg	40						36	72	57	500
4-Methylphenol	µg/kg	40						36	72	57	500
2,4-Dimethylphenol	µg/kg	40						190	373	291	2,600
Substituted Phenols											
2-Chlorophenol	µg/kg	40						36	72	57	500
2,4-Dichlorophenol	µg/kg	40						190	373	291	2,600
4-Chloro-3-methylphenol	µg/kg	40						190	373	291	2,600
2,4,6-Trichlorophenol	µg/kg	40						190	373	291	2,600
2,4,5-Trichlorophenol	µg/kg	40						190	373	291	2,600
Pentachlorophenol	µg/kg	40						930	1,868	1,454	13,000
2-Nitrophenol	µg/kg	40						190	373	291	2,600
4-Nitrophenol	µg/kg	40						930	1,868	1,454	13,000
2,4-Dinitrophenol	µg/kg	40						930	1,868	1,454	13,000
2-Methyl-4,6-dinitrophenol	µg/kg	40						930	1,868	1,454	13,000
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane	µg/kg	40						36	72	57	500
Hexachlorobutadiene	µg/kg	40						36	72	57	500
Hexachlorocyclopentadiene	µg/kg	40						190	373	291	2,600
Halogenated Ethers											
Bis(2-chloroethyl)ether	µg/kg	40						36	72	57	500
4-Chlorophenyl-phenyl ether	µg/kg	40						36	72	57	500
4-Bromophenyl-phenyl ether	µg/kg	40						36	72	57	500
Bis(2-chloroethoxy)methane	µg/kg	40						36	72	57	500

Table D-50. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
2,2'-Oxybis(1-chloropropane)	µg/kg	40						36	72	57	500
Phthalates											
Dimethylphthalate	µg/kg	40						36	72	57	500
Diethylphthalate	µg/kg	40						36	72	57	500
Di-n-butylphthalate	µg/kg	40	6	54	76	74	110	36	75	57	500
Butylbenzylphthalate	µg/kg	40						36	72	57	500
Bis(2-ethylhexyl)phthalate	µg/kg	40	36	47	144	117	560	48	225	138	500
Di-n-octylphthalate	µg/kg	40						36	72	57	500
Miscellaneous Oxygenated Compounds											
Isophorone	µg/kg	40						36	72	57	500
Benzyl alcohol	µg/kg	40						190	373	291	2,600
Dibenzofuran	µg/kg	40						36	72	57	500
Carbazole	µg/kg	40	5	33.5	773	243	2,700	36	59	53	303
Organonitrogen Compounds											
Nitrobenzene	µg/kg	40						36	72	57	500
N-nitroso-di-n-propylamine	µg/kg	40						36	72	57	500
2-Nitroaniline	µg/kg	40						73	146	115	1,000
3-Nitroaniline	µg/kg	40						930	1,868	1,454	13,000
4-Nitroaniline	µg/kg	40						930	1,868	1,454	13,000
2,6-Dinitrotoluene	µg/kg	40						190	373	291	2,600
N-Nitrosodiphenylamine(1)	µg/kg	40						36	72	57	500
4-Chloroaniline	µg/kg	40	1	98	98	98	98	36	73	57	500
β-Hexachlorocyclohexane	µg/kg	1	1	3.19	3.19	3.19	3.19				
Hexachlorocyclohexanes (Sum)	µg/kg	1	1	3.19	3.19	3.19	3.19				
Aldrin	µg/kg	1	1	1.2	1.2	1.2	1.2				
α-Chlordane	µg/kg	1						1.1	1.1	1.1	1.1
γ-Chlordane	µg/kg	1	1	3.0	3.0	3.0	3.0				
Chlordane (sum)	µg/kg	1	1	3.0	3.0	3.0	3.0				
Dieldrin	µg/kg	1	1	3.8	3.8	3.8	3.8				
α-Endosulfan	µg/kg	1						1.1	1.1	1.1	1.1
Endrin aldehyde	µg/kg	1	1	2.8	2.8	2.8	2.8				
Methoxychlor	µg/kg	1									
4,4'-DDT	µg/kg	1	1	1.5	1.5	1.5	1.5				
DDT and Metabolites (sum)	µg/kg	1	1	1.5	1.5	1.5	1.5				
Toxaphene	µg/kg	1						108	108	108	108
Aroclor 1016	µg/kg	40						51	54	54	80
Aroclor-1221	µg/kg	40						51	54	54	80
Aroclor 1232	µg/kg	40						51	54	54	80
Aroclor 1242	µg/kg	40	17	17	66	55	193	51	53	53	55
Aroclor 1248	µg/kg	40						51	54	54	80
Aroclor 1254	µg/kg	40	20	10.6	114	80	289	51	53	53	55
Aroclor 1260	µg/kg	40	3	14	56	37	126	51	54	54	80
Aroclor 1268	µg/kg	40	17	54	217	173	487	51	53	53	55
PCBs (sum)	µg/kg	40	22	37	335	235	826	51	53	53	55

Table D-50. (cont.)

Analyte	Units	Number of Analyses	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Dioxins/Furans											
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	20	19	0.1	25	4.6	78	0.1	0.1	0.1	0.1
Total tetrachlorodibenzofurans	ng/kg	20	19	0.3	97	26	312	0.1	0.1	0.1	0.1
2,3,7,8-Tetrachlorodibenzodioxin	ng/kg	20	12	0.1	0.3	0.2	0.5	0.1	0.1	0.1	0.11
Total tetrachlorodibenzodioxins	ng/kg	20	18	0.2	4.2	2.6	9.3	0.1	0.1	0.1	0.1
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	20	18	0.1	28	5.3	96	0.1	0.1	0.1	0.1
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg	20	18	0.1	11	2.6	43	0.1	0.1	0.1	0.1
Total pentachlorodibenzofurans	ng/kg	20	19	0.1	100	18	345	0.1	0.1	0.1	0.1
1,2,3,7,8-Pentachlorodibenzodioxin	ng/kg	20	14	0.2	0.5	0.4	1.1	0.1	0.1	0.1	0.1
Total pentachlorodibenzodioxins	ng/kg	20	17	0.3	3.9	2.1	12	0.1	0.1	0.1	0.1
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg	20	19	0.1	64	8.9	274	0.1	0.1	0.1	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg	20	16	0.2	22	6.2	61	0.1	0.1	0.1	0.1
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg	20	15	0.1	3.2	1.8	7.3	0.1	0.1	0.1	0.1
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg	20	11	0.1	2.2	1.6	4.2	0.1	0.1	0.1	0.1
Total hexachlorodibenzofurans	ng/kg	20	18	0.3	158	30	547	0.1	0.1	0.1	0.1
1,2,3,4,7,8-Hexachlorodibenzodioxin	ng/kg	20	13	0.1	0.5	0.4	1.0	0.1	0.2	0.1	0.5
1,2,3,6,7,8-Hexachlorodibenzodioxin	ng/kg	20	14	0.2	1.9	1.2	4.9	0.1	0.2	0.1	0.5
1,2,3,7,8,9-Hexachlorodibenzodioxin	ng/kg	20	15	0.2	1.5	0.9	5.3	0.1	0.1	0.1	0.1
Total hexachlorodibenzodioxins	ng/kg	20	18	0.2	15	6.0	44	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg	20	19	0.2	55	11	249	0.1	0.1	0.1	0.1
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg	20	16	0.2	38	8.6	158	0.1	0.1	0.1	0.1
Total heptachlorodibenzofurans	ng/kg	20	19	0.1	158	21	847	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	ng/kg	20	19	0.2	31	10	106	0.1	0.1	0.1	0.1
Total heptachlorodibenzodioxins	ng/kg	20	18	0.3	74	26	246	0.1	0.1	0.1	0.1
Octachlorodibenzofuran	ng/kg	20	19	0.4	398	42	3,300	0.1	0.1	0.1	0.1
Octachlorodibenzodioxin	ng/kg	20	20	0.5	275	66	1,110				
Avian TEQ (1/2 DL)	ng/kg	20	20	0.2	46	8.3	156				
Mammalian TEQ (1/2 DL)	ng/kg	20	20	0.2	19	3.9	69				

Notes: TEQ – toxicity equivalent
MDL – maximum detection limit

Table D-51. Summary Statistics for Adult Fish Tissue Collected from Onondaga Lake in 2000

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum detection limit
Conventional Analytes											
Lipid	%-ww	40	40	1.0	7.6	5.7	22				
Total solids	%-ww	40	40	21	29	28	42				
Total Metals and Cyanide											
Aluminum	mg/kg-ww	40	32	5.2	18	13	115	4.8	4.9	4.9	5.0
Antimony	mg/kg-ww	40						2.0E-02	3.7E-02	3.4E-02	5.0E-02
Arsenic	mg/kg-ww	40	19	0.5	1.1	1.0	2.0	0.5	0.5	0.5	0.5
Barium	mg/kg-ww	40	40	4.0E-02	2.3	1.2	6.7				
Beryllium	mg/kg-ww	40	14	2.0E-02	2.5E-02	2.4E-02	3.5E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Cadmium	mg/kg-ww	40	12	6.0E-02	0.2	0.2	0.9	5.0E-02	5.0E-02	5.0E-02	5.0E-02
Calcium	mg/kg-ww	40	40	389	32,462	18,105	90,400				
Chromium	mg/kg-ww	40	13	1.2	3.8	2.9	14	1.0	1.0	1.0	1.0
Cobalt	mg/kg-ww	40	37	2.0E-02	0.3	0.2	0.6	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Copper	mg/kg-ww	40	40	1.3	4.2	3.2	19				
Cyanide	mg/kg-ww	40	2	1.7	8	4.9	14	0.4	0.5	0.5	0.9
Iron	mg/kg-ww	40	40	10	59	46	225				
Lead	mg/kg-ww	40	38	2.0E-02	0.3	0.2	1.9	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Magnesium	mg/kg-ww	40	40	738	1,315	1,268	2,250				
Manganese	mg/kg-ww	40	40	0.44	6.5	3.6	45				
Mercury	mg/kg-ww	140	140	0.1	0.8	0.7	1.9				
Nickel	mg/kg-ww	40	40	0.3	3.1	2.2	14				
Potassium	mg/kg-ww	40	40	5,450	10,674	10,149	17,700				
Selenium	mg/kg-ww	40	24	1.0	1.4	1.4	2.4	1.0	1.0	1.0	1.0
Silver	mg/kg-ww	40	11	2.0E-02	3.5E-02	3.3E-02	5.0E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Sodium	mg/kg-ww	40	40	1,120	3,644	3,398	6,460				
Thallium	mg/kg-ww	40						2.0E-02	2.0E-02	2.0E-02	2.0E-02
Vanadium	mg/kg-ww	40	40	0.2	0.8	0.7	1.7				
Zinc	mg/kg-ww	40	40	20	108	79	425				
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorocyclohexane (sum)	µg/kg-ww	49	4	1.1	1.4	1.4	1.7	1.0	7.0	5.3	20
Hexachlorobenzene	mg/kg-ww	49	46	2.0E-03	4.8E-02	2.4E-02	0.3	2.0E-03	4.7E-03	3.4E-03	1.0E-02
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg-ww	49						1.0	6.5	4.6	20
β-Hexachlorocyclohexane	µg/kg-ww	49						1.0	6.6	4.7	20
δ-Hexachlorocyclohexane	µg/kg-ww	49						2.1E-02	5.7	1.3	23
γ-Hexachlorocyclohexane	µg/kg-ww	49	4	1.0E-02	1.0	0.4	1.7	1.5E-03	5.1	0.4	20
Hexachlorocyclohexane (Sum)	µg/kg-ww	49	4	1.1	1.4	1.4	1.7	1.0	7.0	5.3	20
Aldrin	µg/kg-ww	49	1	3.0	3.0	3.0	3.0	1.0	6.7	4.9	20
Dieldrin	µg/kg-ww	49	37	1.2E-02	22	2.9	100	1.4E-02	2.6	0.2	20

Table D-51. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum detection limit
α-Chlordane	µg/kg-ww	39	5	2.6	5.2	4.9	7.4	1.0	7.8	5.6	20
γ-Chlordane	µg/kg-ww	39	6	1.1	3.2	2.7	5.0	1.0	8.5	6.5	20
Oxychlordane	µg/kg-ww	10	3	5	6.7	6.3	10	5.0	5.0	5.0	5.0
cis -Chlordane	µg/kg-ww	10						5.0	5.0	5.0	5.0
trans -Chlordane	µg/kg-ww	10						5.0	5.0	5.0	5.0
cis -Nonachlor	µg/kg-ww	10						5.0	5.0	5.0	5.0
trans -Nonachlor	µg/kg-ww	10	1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Chlordane (sum)	µg/kg-ww	49	9	1.1	7.8	6.3	15	1.0	7.0	5.1	20
α-Endosulfan	µg/kg-ww	49						3.6E-03	4.8	0.8	20
β-Endosulfan	µg/kg-ww	39						1.0	54	14	360
Endosulfan sulfate	µg/kg-ww	49	1	2.8	2.8	2.8	2.8	1.0	8.2	6.3	21
Endrin	mg/kg-ww	49	36	1.3E-03	1.6E-02	1.1E-02	4.6E-02	5.0E-03	6.9E-03	6.2E-03	2.0E-02
Endrin aldehyde	µg/kg-ww	49	1	4.9	4.9	4.9	4.9	2.6E-03	6.3	0.5	35
Endrin ketone	µg/kg-ww	39	1	2.5	2.5	2.5	2.5	5.4E-03	6.2	1.2	20
Heptachlor	µg/kg-ww	49						1.0	6.5	4.6	20
Heptachlor epoxide	µg/kg-ww	49	1	7.0	7.0	7.0	7.0	1.0	12	9.3	50
Heptachlor epoxide and heptachlor (sum)	µg/kg-ww	39						1.0	6.9	4.5	20
Methoxychlor	µg/kg-ww	39						1.0	7.8	5.6	20
Mirex	µg/kg-ww	10						2.0	2.0	2.0	2.0
Photomirex	µg/kg-ww	10						5.0	5.0	5.0	5.0
4,4'-DDD	µg/kg-ww	49	43	1.3	30	16	94	2.0	6.7	4.3	20
4,4'-DDE	µg/kg-ww	49	49	3	93	45	360				
4,4'-DDT	µg/kg-ww	49	45	1.6	12	7.9	45	10	13	12	20
DDT and metabolites (sum)	mg/kg-ww	49	49	5.0E-03	0.1	6.6E-02	0.5				
Ortho-para DDD	µg/kg-ww	10						5.0	5.0	5.0	5.0
Ortho-para DDE	µg/kg-ww	10						5.0	5.0	5.0	5.0
Ortho-para DDT	µg/kg-ww	10						5.0	5.0	5.0	5.0
Toxaphene	µg/kg-ww	39						50	986	726	2000
Aroclor 1016	µg/kg-ww	39						10	62	39	100
Aroclor 1221	µg/kg-ww	39						10	119	73	200
Aroclor 1232	µg/kg-ww	39						10	59	37	100
Aroclor 1242	µg/kg-ww	49	10	44	123	105	287	10	59	37	100
Aroclor 1248	µg/kg-ww	39	39	53	797	560	1,700				
Aroclor 1254	µg/kg-ww	39						10	59	37	100
Aroclor 1260	µg/kg-ww	39	39	35	559	372	2,300				
Aroclor 1268	µg/kg-ww	39						10	59	37	100
Aroclors 1254 and 1260	µg/kg-ww	10	10	63	193	160	489				
PCBs (sum)	µg/kg-ww	49	49	88	1,144	737	3,400				

Table D-51. (cont.)

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum detection limit
Dioxins/Furans											
2,3,7,8-Tetrachlorodibenzofuran	ng/kg-ww	40	40	0.2	7.5	3.7	64				
Total tetrachlorodibenzofurans	ng/kg-ww	40	39	0.2	8.3	4.0	68	0.1	0.1	0.1	0.1
2,3,7,8-Tetrachlorodibenzodioxin	ng/kg-ww	40	38	0.2	1.3	0.9	4.0	0.1	0.1	0.1	0.2
Total tetrachlorodibenzodioxins	ng/kg-ww	40	26	0.2	1.6	1.2	4.0	0.1	0.1	0.1	0.4
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg-ww	40	37	0.1	2.9	1.1	27	0.1	0.1	0.1	0.1
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg-ww	40	39	0.1	14	3.4	114	0.1	0.1	0.1	0.1
Total pentachlorodibenzofurans	ng/kg-ww	40	34	0.3	20	6.7	149	0.1	0.1	0.1	0.1
1,2,3,7,8-Pentachlorodibenzodioxin	ng/kg-ww	40	32	0.1	1.7	1.0	6.4	0.1	0.1	0.1	0.1
Total pentachlorodibenzodioxins	ng/kg-ww	40	24	0.1	2.0	1.4	6.7	0.1	0.1	0.1	0.2
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg-ww	40	33	0.1	2.3	0.7	21	0.1	0.1	0.1	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg-ww	40	23	0.1	1.3	0.6	7.8	0.1	0.1	0.1	0.2
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg-ww	40	21	0.2	0.6	0.5	1.9	0.1	0.1	0.1	0.2
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg-ww	40	6	0.1	0.2	0.2	0.2	9.0E-02	0.1	0.1	0.2
Total hexachlorodibenzofurans	ng/kg-ww	40	29	0.1	4.1	1.2	31	0.1	0.1	0.1	0.1
1,2,3,4,7,8-Hexachlorodibenzodioxin	ng/kg-ww	40	20	0.2	0.6	0.5	1.9	0.1	0.1	0.1	0.2
1,2,3,6,7,8-Hexachlorodibenzodioxin	ng/kg-ww	40	35	0.1	1.4	0.8	6.4	0.1	0.1	0.1	0.2
1,2,3,7,8,9-Hexachlorodibenzodioxin	ng/kg-ww	40	22	0.1	0.5	0.4	1.2	0.1	0.1	0.1	0.2
Total hexachlorodibenzodioxins	ng/kg-ww	40	27	0.1	2.4	1.4	8.4	0.1	0.1	0.1	0.2
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg-ww	40	26	0.1	0.6	0.5	1.8	9.0E-02	0.1	0.1	0.2
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg-ww	40	9	0.1	0.2	0.2	0.4	9.0E-02	0.1	0.1	0.2
Total heptachlorodibenzofurans	ng/kg-ww	40	17	0.1	0.8	0.5	2.4	0.1	0.1	0.1	0.2
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	ng/kg-ww	40	32	0.1	2.0	0.9	8.1	0.1	0.1	0.1	0.2
Total heptachlorodibenzodioxins	ng/kg-ww	40	29	0.1	2.8	1.5	10	0.1	0.1	0.1	0.2
Octachlorodibenzofuran	ng/kg-ww	40	1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4
Octachlorodibenzodioxin	ng/kg-ww	40	16	2.1	4.4	4.0	13	0.3	0.7	0.6	1.4
Avian TEQ (1/2 DL)	ng/kg-ww	40	40	0.5	25	10	194				
Mammalian TEQ (1/2 DL)	ng/kg-ww	40	40	0.3	11	4.1	79				

Notes: TEQ – toxicity equivalent
MDL – maximum detection limit

Table D-52. Summary Statistics for Juvenile Fish Tissue Collected from Onondaga Lake in 2000

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
Conventional Analytes											
Lipid	%-ww	15	15	1.4	3.2	3.1	4.5				
Total solids	%-ww	15	15	19	23	23	26				
Total Metals and Cyanide											
Aluminum	mg/kg-ww	15	15	5	30	23	66				
Antimony	mg/kg-ww	15						5.0E-02	5.0E-02	5.0E-02	5.0E-02
Arsenic	mg/kg-ww	15	14	0.5	0.7	0.7	1.5	0.5	0.5	0.5	0.5
Barium	mg/kg-ww	15	15	0.7	3.6	3.3	5.2				
Beryllium	mg/kg-ww	15	10	2.0E-02	2.5E-02	2.4E-02	3.0E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Cadmium	mg/kg-ww	15	8	6.0E-02	0.1	0.1	0.2	5.0E-02	5.0E-02	5.0E-02	5.0E-02
Calcium	mg/kg-ww	15	15	34,700	43,720	43,299	57,400				
Chromium	mg/kg-ww	15	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cobalt	mg/kg-ww	15	15	0.5	0.6	0.6	0.8				
Copper	mg/kg-ww	15	15	2.0	3.1	3.0	4.9				
Iron	mg/kg-ww	15	15	36	80	74	137				
Lead	mg/kg-ww	15	15	6.0E-02	0.3	0.2	1.0				
Magnesium	mg/kg-ww	15	15	1,630	1,784	1,781	1,990				
Manganese	mg/kg-ww	15	15	2.6	7.9	7.3	14				
Mercury	µg/kg-ww	15	15	4.8E-02	0.1	9.8E-02	0.2				
Nickel	mg/kg-ww	15	15	6.6	8.8	8.6	13				
Potassium	mg/kg-ww	15	15	12,000	13,227	13,203	14,600				
Selenium	mg/kg-ww	15	11	1.1	1.5	1.4	2.6	1.0	1.0	1.0	1.0
Silver	mg/kg-ww	15	5	2.0E-02	2.6E-02	2.6E-02	3.0E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Sodium	mg/kg-ww	15	15	3,100	4,263	4,242	4,690				
Thallium	mg/kg-ww	15	1	2.0E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02	2.0E-02
Vanadium	mg/kg-ww	15	15	0.7	1.1	1.1	1.4				
Zinc	mg/kg-ww	15	15	81	116	114	154				
Cyanide	mg/kg-ww	15						0.5	0.7	0.7	0.8
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene (GC/ECD)	µg/kg-ww	15	11	6.3	21	17	47	10	10	10	10
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	µg/kg-ww	15						1.0	5.0	3.3	10
β-Hexachlorocyclohexane	µg/kg-ww	15	1	5.4	5.4	5.4	5.4	1.0	5.5	3.9	10
δ-Hexachlorocyclohexane	µg/kg-ww	15						1.0	4.9	3.2	10
γ-Hexachlorocyclohexane (Lindane)	µg/kg-ww	15						1.0	4.9	3.2	10
Aldrin	µg/kg-ww	15						1.0	4.9	3.2	10
Dieldrin	µg/kg-ww	15	12	2.9	8.8	6.8	26	10	10	10	10
Aldrin and dieldrin (Sum)	µg/kg-ww	15	12	2.9	8.8	6.8	26	10	10	10	10
α-Chlordane	µg/kg-ww	15						1.0	5.5	3.9	10

Table D-52. Summary Statistics for Juvenile Fish Tissue Collected from Onondaga Lake in 2000

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
γ-Chlordane	µg/kg-ww	15						1.0	6.3	4.8	10
Chlordane (Sum)	µg/kg-ww	15						1.0	5.4	3.7	10
α-Endosulfan	µg/kg-ww	15						1.0	4.9	3.2	10
β-Endosulfan	µg/kg-ww	15						1.0	4.9	3.2	10
Endosulfan sulfate	µg/kg-ww	15						1.0	5.1	3.4	10
Endrin	mg/kg-ww	15	10	1.5E-03	5.7E-03	3.2E-03	3.3E-02	1.0E-02	1.0E-02	1.0E-02	1.0E-02
Endrin aldehyde	µg/kg-ww	15						1.0	5.9	4.7	10
Endrin ketone	µg/kg-ww	15	1	5.2	5.2	5.2	5.2	1.0	5.9	4.3	10
Heptachlor	µg/kg-ww	15						1.0	5.1	3.2	12
Heptachlor epoxide	µg/kg-ww	15						3.0	9.4	8.2	25
Methoxychlor	µg/kg-ww	15						1.0	4.9	3.2	10
Toxaphene	µg/kg-ww	15						200	487	364	1,000
4,4'-DDD	µg/kg-ww	15	12	2.5	6.7	5.5	19	10	10	10	10
4,4'-DDE	µg/kg-ww	15	15	7.7	19	17	51				
4,4'-DDT	µg/kg-ww	15	8	1.5	4.5	3.1	17	2.0	7.7	6.3	10
DDT and metabolites (Sum)	mg/kg-ww	15	15	1.2E-02	2.7E-02	2.3E-02	8.7E-02				
Aroclor 1016	µg/kg-ww	15						10	64	40	100
Aroclor 1221	µg/kg-ww	15						20	128	80	200
Aroclor 1232	µg/kg-ww	15						10	64	40	100
Aroclor 1242	µg/kg-ww	15						10	64	40	100
Aroclor 1248	µg/kg-ww	15	15	86	446	289	2,100				
Aroclor 1254	µg/kg-ww	15						10	64	40	100
Aroclor 1260	µg/kg-ww	15	15	47	173	121	750				
Aroclor 1268	µg/kg-ww	15						10	64	40	100
PCBs (Sum)	µg/kg-ww	15	15	142	619	427	2,370				
Dioxins/Furans											
2,3,7,8-Tetrachlorodibenzofuran	ng/kg-ww	16	16	0.7	2.3	1.8	6.0				
Total tetrachlorodibenzofurans	ng/kg-ww	16	16	0.6	2.4	1.8	7.8				
2,3,7,8-Tetra-chlorodibenzo-dioxin	ng/kg-ww	16	12	0.2	0.4	0.4	0.8	0.1	0.1	0.1	0.2
Total tetrachlorodibenzodioxins	ng/kg-ww	16	11	0.2	0.8	0.6	2.3	0.1	0.1	0.1	0.2
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg-ww	16	10	0.1	0.4	0.3	1.1	0.1	0.1	0.1	0.2
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg-ww	16	14	0.2	1.1	0.7	5.6	0.1	0.2	0.1	0.2
Total pentachlorodibenzofurans	ng/kg-ww	16	14	0.2	1.6	0.9	7.1	0.1	0.1	0.1	0.1
1,2,3,7,8-Pentachlorodibenzodioxin	ng/kg-ww	16	12	0.1	0.3	0.3	0.6	0.1	0.1	0.1	0.2
Total pentachlorodibenzodioxins	ng/kg-ww	16	6	0.2	0.3	0.3	0.6	0.1	0.1	0.1	0.2
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg-ww	16	8	0.1	0.3	0.2	0.6	0.1	0.1	0.1	0.2
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg-ww	16	2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg-ww	16	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg-ww	16						0.1	0.1	0.1	0.2
Total hexachlorodibenzofurans	ng/kg-ww	16	5	0.2	0.4	0.3	0.7	0.1	0.1	0.1	0.2

Table D-52. Summary Statistics for Juvenile Fish Tissue Collected from Onondaga Lake in 2000

Analyte	Units	Number of Fish Analyzed	Number of Detected Values	Minimum Detected Value	Mean Detected Value	Geometric Mean Detected Value	Maximum Detected Value	Minimum Detection Limit	Mean Detection Limit	Geometric Mean Detection Limit	Maximum Detection Limit
1,2,3,4,7,8-Hexachlorodibenzodioxin	ng/kg-ww	16						0.1	0.1	0.1	0.2
1,2,3,6,7,8-Hexachlorodibenzodioxin	ng/kg-ww	16	10	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.2
1,2,3,7,8,9-Hexachlorodibenzodioxin	ng/kg-ww	16	1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
Total hexachlorodibenzodioxins	ng/kg-ww	16	4	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.2
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg-ww	16	6	0.2	0.3	0.2	0.3	0.1	0.1	0.1	0.2
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg-ww	16						0.1	0.1	0.1	0.2
Total heptachlorodibenzofurans	ng/kg-ww	16	5	0.3	0.4	0.4	0.5	0.1	0.1	0.1	0.2
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	ng/kg-ww	16	16	0.1	0.4	0.3	0.9				
Total heptachlorodibenzodioxins	ng/kg-ww	16	9	0.1	0.6	0.5	1.5	0.1	0.1	0.1	0.2
Octachlorodibenzofuran	ng/kg-ww	16	9	0.1	0.4	0.4	0.6	0.1	0.1	0.1	0.2
Octachlorodibenzodioxin	ng/kg-ww	16	7	2.1	3.2	3.1	4.3	0.5	0.9	0.8	1.6
Avian TEQ (1/2 DL)	ng/kg-ww	16	16	1.0	3.9	3.1	13				
Mammalian TEQ (1/2 DL)	ng/kg-ww	16	16	0.3	1.4	1.1	4.7				

Notes: TEQ – toxicity equivalent
MDL – maximum detection limit
ND – non-detect

Table D-53. Ratios of Maximum Concentrations of Detected Chemicals in Onondaga Lake Surface Water in 1999 to Minimum Screening Values

Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals[b,c]						
Chromium	mg/L	unfiltered	3.9E-03	C, G	0.095	4.1E-02
Iron	mg/L	dissolved	0.3	G	0.3	1.0
Iron	mg/L	unfiltered	0.6	G	0.3	2.0
Lead	mg/L	unfiltered	3.1E-03	C	0.003	0.9
Manganese	mg/L	dissolved	0.6	H	0.08	7.6
Manganese	mg/L	unfiltered	0.6	H	0.08	7.5
Methylmercury	ng/L	dissolved	15	H	3	5.1
Methylmercury	ng/L	unfiltered	14	H	3	4.8
Mercury	ng/L	dissolved	24	I	2.6	9.2
Mercury	ng/L	unfiltered	103	I	2.6	40
Nickel	mg/L	unfiltered	4.7E-03	C, G	0.067	7.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	6.3	H	46	0.1
Toluene	µg/L	unfiltered	0.2	H	130	1.2E-03
Xylene isomers (total)[d]	µg/L	unfiltered	0.3	H	1.8	0.2
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	12	G	5	2.4
1,2-Dichlorobenzene	µg/L	unfiltered	3.2	H	14	0.2
1,4-Dichlorobenzene	µg/L	unfiltered	3.4	H	15	0.2
Dichlorobenzenes (sum)	µg/L	unfiltered	6.6	G	5	1.3

Notes:
A – USEPA AWQC/FCV (Aquatic Life) – 135 mg/L hardness
B – USEPA Acute (Aquatic Life)
C – USEPA CCC (Aquatic Life) – 135mg/L hardness
D – USEPA Chronic (Aquatic Life)
E – USEPA CMC (Aquatic Life) – 135 mg/L hardness
F – NYSDEC Acute (Aquatic life) – 135 mg/L hardness
G – NYSDEC Chronic (Aquatic Life) – 135 mg/L hardness
H – USEPA Tier II (Aquatic Life) – 135 mg/L hardness
I – NYSDEC (Wildlife)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined
[b] All metal screening values refer to the dissolved form
[c] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion
[d] Applied USEPA Tier II criteria for m-xylene

Table D-54. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Onondaga Lake Surface Water in 1999 to Minimum Screening Values

Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Ethylbenzene	µg/L	unfiltered	0.3	H	290	8.6E-04
Halogenated Alkanes						
1,1-Dichloroethane	µg/L	unfiltered	0.3	H	47	5.3E-03
1,1,1-Trichloroethane	µg/L	unfiltered	0.3	H	62	4.0E-03
1,2-Dichloropropane	µg/L	unfiltered	0.3	D	5,700	4.4E-05
1,1,2-Trichloroethane	µg/L	unfiltered	0.3	D	9,400	2.7E-05
1,1,2,2-Tetrachloroethane	µg/L	unfiltered	0.3	H	420	6.0E-04
Halogenated Alkenes						
cis -1,3-Dichloropropene	µg/L	unfiltered	0.3	D	244	1.0E-03
trans -1,3-Dichloropropene	µg/L	unfiltered	0.3	D	244	1.0E-03
Trichloroethene [b]	µg/L	unfiltered	0.3	H	350	7.1E-04
Tetrachloroethene [b]	µg/L	unfiltered	0.3	H	120	2.1E-03

Notes: A – USEPA AWQC/FCV (Aquatic Life)
B – USEPA Acute (Aquatic Life)
C – USEPA CCC (Aquatic Life)
D – USEPA Chronic (Aquatic Life)
E – USEPA CMC (Aquatic Life)
F – NYSDEC Acute (Aquatic life)
G – NYSDEC Chronic (Aquatic Life)
H – USEPA Tier II (Aquatic Life)
I – NYSDEC (Wildlife)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined
[b] Trichloroethylene and tetrachloroethylene USEPA Tier II criteria applied to trichloroethene and tetrachloroethene

Table D-55. Ratios of Maximum Concentrations of Detected Chemicals in Surface Sediments (0–15 cm) from Onondaga Lake in 2000 to Minimum Dry-Weight Basis Screening Values

Analyte	Units	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide					
Aluminum	mg/kg	14,500	F	58,030	0.2
Antimony	mg/kg	5.4	A	2.0	2.7
Arsenic	mg/kg	47	A, C	6.0	7.9
Cadmium	mg/kg	15	G	0.59	25
Chromium	mg/kg	4,180	A, C	26	161
Copper	mg/kg	366	A, C	16	23
Iron	mg/kg	50,800	A, C	20,000	2.5
Lead	mg/kg	750	A, C	31	24
Manganese	mg/kg	1,190	A, C	460	2.6
Mercury	mg/kg	78	A, H	0.15	518
Nickel	mg/kg	1,670	A, C	16	104
Silver	mg/kg	6.1	A	1.0	6.1
Zinc	mg/kg	421	A, C	120	3.5
Semivolatile Organic Compounds					
Low Molecular Weight Polycyclic Aromatic Hydrocarbons					
Naphthalene	µg/kg	26,000,000	G	32.8	792,683
Acenaphthene	µg/kg	85,000	H	16	5,313
Fluorene	µg/kg	140,000	G	34.6	4,046
Phenanthrene	µg/kg	630,000	H	240	2,625
Anthracene	µg/kg	95,000	G	31.6	3,006
High Molecular Weight Polycyclic Aromatic Hydrocarbons					
Fluoranthene	µg/kg	250,000	G	64.2	3,894
Pyrene	µg/kg	150,000	C	490	306
Benz[a]anthracene	µg/kg	100,000	G	260	385
Chrysene	µg/kg	100,000	C	340	294
Benzo[a]pyrene	µg/kg	65,000	G	350	186
Indeno[1,2,3-cd]pyrene	µg/kg	38,000	G	78	487
Dibenz[a,h]anthracene	µg/kg	17,000	F	28.2	603
Benzo[ghi]perylene	µg/kg	35,000	G	290	121
PAH (total)	µg/kg	29,430,000	H	4,000	7,358
Pesticides/Polychlorinated Biphenyls					
4,4'-DDT	µg/kg	88	H	1.6	55
PCBs (Sum)	µg/kg	20,955	B	10	2,096

Notes: A – NYSDEC LEL (Benthos)
B – OME NOEL (Benthos)
C – OME LEL (Benthos)
E – USEPA NEC (Benthos)
F – USEPA PEC (Benthos)
G – USEPA TEC (Benthos)
H – NOAA ERL (Benthos)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-56. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Surface Sediments (0–15 cm) from Onondaga Lake in 2000 to Dry-Weight Basis Screening Values

Analyte	Units	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Pesticides/Polychlorinated Biphenyls					
Toxaphene	mg/kg	4.7	H	1.6	3.0
Aroclor 1016	mg/kg	5.4	C	7	0.8

Notes: A – NYSDEC LEL (Benthos)
B – OME NOEL (Benthos)
C – OME LEL (Benthos)
E – USEPA NEC (Benthos)
F – USEPA PEC (Benthos)
G – USEPA TEC (Benthos)
H – NOAA ERL (Benthos)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-57. Ratios of Maximum Concentrations of Detected Chemicals in Surface Sediments (0–15 cm) from Onondaga Lake in 2000 to Minimum Organic Carbon Normalized Screening Values

Analyte	Units	Measurement Basis	Maximum Detected Value[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	mg/kg	TOC	1,400	F	5.7	246
Toluene	mg/kg	TOC	140	C	5.0	28
Ethylbenzene	mg/kg	TOC	230	C	8.9	26
Xylene isomers (total)	mg/kg	TOC	2,063	F	2.5	825
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	mg/kg	TOC	16,000	B	3.5	4,571
1,2-Dichlorobenzene	mg/kg	TOC	790	C	33	24
1,3-Dichlorobenzene	mg/kg	TOC	320	C, F	170	1.9
1,4-Dichlorobenzene	mg/kg	TOC	2,000	C	34	59
Dichlorobenzenes (Sum)	mg/kg	TOC	2,759	B	12	230
1,2,4-Trichlorobenzene	mg/kg	TOC	300	F	920	0.3
Trichlorobenzenes (Sum)	mg/kg	TOC	300	B	91	3.3
Halogenated Alkanes						
Methylene chloride	mg/kg	TOC	110	C	37	3.0
1,2-Dichloroethane	mg/kg	TOC	1.55	C	25	6.2E-02
1,1,1-Trichloroethane	mg/kg	TOC	2.0E-02	C	3.0	6.7E-03
Halogenated Alkenes						
Trichloroethene	mg/kg	TOC	4.0E-02	C	22	1.8E-03
Tetrachloroethene	mg/kg	TOC	2.0E-02	C	41	4.9E-04
Ketones						
Acetone	mg/kg	TOC	6.1	C	0.87	7.0
2-Butanone	mg/kg	TOC	2.0	C	27	7.4E-02
Miscellaneous Volatile Compounds						
Carbon disulfide	mg/kg	TOC	1.6	C	0.085	18
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	mg/kg	TOC	43.8	D	2.0	22
Low Molecular Weight Polycyclic Aromatic Hydrocarbons						
Naphthalene	mg/kg	TOC	83,000	C	24	3,458
Acenaphthene	mg/kg	TOC	610	G	62	9.8
Fluorene	mg/kg	TOC	1,000	B	8.0	125
Phenanthrene	mg/kg	TOC	2,700	D	56	48
Anthracene	mg/kg	TOC	680	D	22	31
2-Methylnaphthalene	mg/kg	TOC	8,900	B	34	262
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Fluoranthene	mg/kg	TOC	1,800	D	75	24
Pyrene	mg/kg	TOC	1,100	D	49	22
Benz[a]anthracene	mg/kg	TOC	710	C	11	65
Chrysene	mg/kg	TOC	710	D	34	21
Benzo[k]fluoranthene	mg/kg	TOC	430	D	24	18
Benzo[a]pyrene	mg/kg	TOC	460	C	14	33
Indeno[1,2,3-cd]pyrene	mg/kg	TOC	270	D	20	14
Dibenz[a,h]anthracene	mg/kg	TOC	120	D	6.0	20
Benzo[ghi]perylene	mg/kg	TOC	250	D	17	15
Phenols						
Phenol	mg/kg	TOC	53	B	0.5	106

Table D-57. (cont.)

Analyte	Units	Measurement Basis	Maximum Detected Value[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
2-Methylphenol	mg/kg	TOC	14	C	1.2	12
Phthalates						
Di-*n*-butyl phthalate	mg/kg	TOC	2.5	C, F	1,100	2.3E-03
Bis[2-ethylhexyl]phthalate	mg/kg	TOC	81	B	199.5	0.4
Miscellaneous Oxygenated Compounds						
Dibenzofuran	mg/kg	TOC	580	C	42	14
Pesticides/Polychlorinated Biphenyls						
α-Hexachlorocyclohexane	mg/kg	TOC	9.3E-02	D	0.6	0.2
β-Hexachlorocyclohexane	mg/kg	TOC	0.1	D	0.5	0.3
δ-Hexachlorocyclohexane	mg/kg	TOC	6.6E-02	C	12	5.5E-03
γ-Hexachlorocyclohexane	mg/kg	TOC	4.7E-02	D	0.3	0.2
Hexachlorocyclohexanes (Sum)	mg/kg	TOC	0.1	B	0.06	2.2
Aldrin	mg/kg	TOC	3.3E-02	D	0.2	0.2
α-Chlordane	mg/kg	TOC	0.2	A	0.006	28
γ-Chlordane	mg/kg	TOC	0.4	A	0.006	73
Dieldrin	mg/kg	TOC	0.4	D	0.2	1.8
α-Endosulfan	mg/kg	TOC	9.9E-02	B	0.03	3.3
Endrin	mg/kg	TOC	6.7E-02	D	0.3	0.2
Heptachlor	mg/kg	TOC	5.7E-02	C	6.8	8.3E-03
Heptachlor epoxide	mg/kg	TOC	0.3	D	0.5	0.7
Heptachlor and heptachlor epoxide (Sum)	mg/kg	TOC	0.3	A	0.03	11
Methoxychlor	mg/kg	TOC	3.5E-02	B	0.6	5.9E-02
4,4'-DDD	mg/kg	TOC	5.4E-02	D	0.8	6.8E-02
4,4'-DDE	mg/kg	TOC	0.5	D	0.5	1.0
4,4'-DDT	mg/kg	TOC	0.6	D	0.8	0.8
DDT and metabolites (Sum)	mg/kg	TOC	1.0	D	0.7	1.4
Aroclor 1221	mg/kg	TOC	20	C	12	1.7
Aroclor 1242	mg/kg	TOC	116	C	17	6.8
Aroclor 1248	mg/kg	TOC	2.1	D	3	0.7
Aroclor 1254	mg/kg	TOC	14	D	6	2.4
Aroclor 1260	mg/kg	TOC	7.3	D	0.5	15
PCBs (Sum)	mg/kg	TOC	129	A	1.4	92
Dioxins/Furans						
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	mg/kg	TOC	129	A	0.0002	645,000

Notes: A – NYSDEC Bioaccumulation (Wildlife)
B – NYSDEC Chronic (Benthos)
C – ORNL Secondary Chronic (Benthos) (assumed 1% TOC)
D – OME LEL (Benthos) (assumed 1% TOC)
F – USEPA SQB
G – USEPA SQC
[a] Maximum TOC normalized value
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-58. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Surface Sediments (0–15 cm) from Onondaga Lake in 2000 to Organic Carbon Normalized Screening Values

Analyte	Units	Measurement Basis	One-Half MDL[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Volatile Organic Compounds						
Halogenated Alkanes						
1,1-Dichloroethane	mg/kg	TOC	115	H	2.7	43
Chloroform	mg/kg	TOC	115	H	2.2	52
Carbon tetrachloride	mg/kg	TOC	115	H	4.7	24
1,1,2-Trichloroethane	mg/kg	TOC	115	H	120	1.0
1,1,2,2-Tetrachloroethane	mg/kg	TOC	115	D	94	1.2
Halogenated Alkenes						
1,1-Dichloroethene	mg/kg	TOC	115	H	3.1	37
cis -1,3-Dichloropropene	mg/kg	TOC	115	H	0.0051	22,549
trans -1,3-Dichloropropene	mg/kg	TOC	115	H	0.0051	22,549
Ketones						
2-Hexanone	mg/kg	TOC	238	H	2.2	108
Semivolatile Organic Compounds						
Substituted Phenols						
4-Chloro-3-methylphenol[c]	mg/kg	TOC	1,910	H	3.3	579
Pentachlorophenol	mg/kg	TOC	9,550	A	40	239
Chlorinated Aliphatic Hydrocarbons						
Hexachloroethane	mg/kg	TOC	366	D, H	100	3.7
Hexachlorobutadiene	mg/kg	TOC	366	C	4	92
Hexachlorocyclopentadiene	mg/kg	TOC	1,910	A	4.4	434
Halogenated Ethers						
4-Bromophenyl-phenyl ether	mg/kg	TOC	366	D	130	2.8
Phthalates						
Diethylphthalate	mg/kg	TOC	366	H	60	6.1
Butylbenzylphthalate	mg/kg	TOC	366	D, H	1100	0.3
Pesticides/Polychlorinated Biphenyls						
β-Endosulfan	mg/kg	TOC	4.7E-02	A	0.03	1.6
Toxaphene	mg/kg	TOC	4.7	A	0.01	474
Aroclor 1016	mg/kg	TOC	5.4	F	0.7	7.7
Aroclor 1232	mg/kg	TOC	5.4	H	60	8.9E-02

Notes: A – NYSDEC Chronic (Benthos)
B – NYSDEC Acute (Benthos)
C – NYSDEC Bioaccumulation (Wildlife)
D – USEPA SQB
E – USEPA SQC
F – OME LEL (Benthos) (assumed 1% TOC)
G – OME SEL
H – ORNL Secondary Chronic (Benthos) (assumed 1% TOC)
MDL – maximum detection limit
[a] Maximum TOC normalized value
[b] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.
[c] Applied 4-Methyl-2-pentanone criteria

Table D-59. Ratios of Maximum Concentrations of Detected Chemicals in Surface Sediments (0–15 cm) from Otisco Lake in 2000 to Minimum Dry-Weight Basis Screening Values

Analyte	Units	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide					
Aluminum	mg/kg	13,700	F	58,030	0.2
Antimony	mg/kg	0.8	B	2	0.4
Arsenic	mg/kg	7.7	B, D	6	1.3
Chromium	mg/kg	24	B, D	26	0.9
Copper	mg/kg	139	B, D	16	8.7
Iron	mg/kg	20,800	B, D	20,000	1.0
Lead	mg/kg	25	B, D	31	0.8
Manganese	mg/kg	1180	B, D	460	2.6
Nickel	mg/kg	23	B, D	16	1.4
Zinc	mg/kg	84	B, D	120	0.7
Pesticides/Polychlorinated Biphenyls					
γ-Chlordane[b]	mg/kg	1.2E-03	A	0.005	0.2
Heptachlor epoxide	mg/kg	1.4E-03	D	0.005	0.3
4,4'-DDE	mg/kg	1.7E-03	I	0.0022	0.8
4,4'-DDT	mg/kg	2.5E-03	I	0.0016	1.6
DDT and metabolites (Sum)	mg/kg	4.0E-03	I	0.0016	2.5
Aroclor 1260	mg/kg	9.7E-02	D	0.005	19
PCBs (Sum)	mg/kg	0.1	A	0.01	12

Notes: A – OME NOEL (Benthos)
B – NYSDEC LEL (Benthos)
C – NYSDEC SEL (Benthos)
D – OME LEL (Benthos)
E – USEPA NEC (Benthos)
F – USEPA PEC (Benthos)
H – USEPA TEC (Benthos)
I – NOAA ERL (Benthos)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined
[b] Criteria for chlordane was applied to the chlordane isomers

Table D-60. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Surface Sediment (0–15 cm) from Otisco Lake in 2000 to Minimum Dry-Weight Basis Screening Values

Analyte	Units	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide					
Cadmium	mg/kg	6.0E-02	H	0.592	0.1
Mercury	mg/kg	6.0E-02	B, I	0.15	0.4
Silver	mg/kg	0.2	B	1	0.2
Volatile Organic Compounds					
Chlorinated Aromatic Hydrocarbons					
1,2-Dichlorobenzene	µg/kg	70	L	330	0.2
1,3-Dichlorobenzene	µg/kg	70	J, L	1,700	4.1E-02
1,4-Dichlorobenzene	µg/kg	70	L	340	0.2
1,2,4-Trichlorobenzene	µg/kg	70	J	9,200	7.6E-03
Semivolatile Organic Compounds					
Chlorinated Aromatic Hydrocarbons					
Hexachlorobenzene	µg/kg	0.5	A	10	0.1
Low Molecular Weight Polycyclic Aromatic Hydrocarbons					
Naphthalene	µg/kg	70	H	32.8	2.1
Acenaphthene	µg/kg	70	I	16	4.4
Fluorene	µg/kg	70	H	34.6	2
Phenanthrene	µg/kg	70	I	240	0.3
Anthracene	µg/kg	70	H	31.6	2.2
High Molecular Weight Polycyclic Aromatic Hydrocarbons					
Fluoranthene	µg/kg	70	H	64.2	1.1
Pyrene	µg/kg	70	D	490	0.1
Benz[a]anthracene	µg/kg	70	H	260	0.3
Chrysene	µg/kg	70	D	340	0.2
Benzo[k]fluoranthene	µg/kg	70	D	240	0.3
Benzo[a]pyrene	µg/kg	70	H	350	0.2
Indeno[1,2,3-cd]pyrene	µg/kg	70	H	78	0.9
Dibenz[a,h]anthracene	µg/kg	70	F	28.2	2.5
Benzo[ghi]perylene	µg/kg	70	D	170	0.4
Chlorinated Aliphatic Hydrocarbons					
Hexachloroethane	µg/kg	70	J, L	1,000	7.0E-02
Halogenated Ethers					
4-Bromophenyl-phenyl ether	µg/kg	70	L	1,200	5.8E-02
Phthalates					
Diethyl phthalate	µg/kg	70	L	600	0.1
Di-*n* -butyl phthalate	µg/kg	95	J, L	11,000	8.6E-03
Butylbenzyl phthalate	µg/kg	70	J, L	11,000	6.4E-03
Miscellaneous Oxygenated Compounds					
Dibenzofuran	µg/kg	70	L	420	0.2
Pesticides/Polychlorinated Biphenyls					
α-Hexachlorocyclohexane	mg/kg	5.4E-04	D	0.006	9.0E-02
β-Hexachlorocyclohexane	mg/kg	5.4E-04	D	0.005	0.1
γ-Hexachlorocyclohexane	mg/kg	5.4E-04	A	0.0002	2.7
Aldrin	mg/kg	5.4E-04	D	0.002	0.3
α-Chlordane[b]	mg/kg	5.4E-04	D	0.007	7.7E-02
Dieldrin	mg/kg	5.4E-04	A	0.0006	0.9

Table D-60. (cont.)

Analyte		Units	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
	α-Endosulfan	mg/kg	5.4E-04	J	0.0029	0.2
	β-Endosulfan	mg/kg	5.1E-04	J	0.014	3.6E-02
	Endrin	mg/kg	5.4E-04	A	0.0005	1.1
	Methoxychlor	mg/kg	5.4E-04	J	0.019	2.8E-02
	4,4'-DDD	mg/kg	5.4E-04	D	0.008	6.8E-02
	Toxaphene	mg/kg	5.4E-02	J	0.028	1.9
	Aroclor 1016	mg/kg	2.7E-02	D	0.007	3.9
	Aroclor 1248	mg/kg	2.7E-02	D	0.03	0.9
	Aroclor 1254	mg/kg	2.7E-02	D	0.06	0.5

Notes: A – OME NOEL (Benthos)
B – NYSDEC LEL (Benthos)
C – NYSDEC SEL (Benthos)
D – OME LEL (Benthos)
E – USEPA NEC (Benthos)
F – USEPA PEC (Benthos)
H – USEPA TEC (Benthos)
I – NOAA ERL (Benthos)
J – USEPA SQB (Benthos) (value assumes 1% TOC)
K – USEPA SQC (Benthos) (value assumes 1% TOC)
L – ORNL Secondary Chronic (Benthos) (value assumes 1% TOC)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are o
[b] Criteria for chlordane was applied to the chlordane isomers

Table D-61. Ratios of Maximum Concentrations of Detected Chemicals in Surface Sediments (0–15 cm) from Otisco Lake in 2000 to Minimum Organic Carbon Normalized Screening Values

Analyte	Units	Measurement Basis	Maximum Detected Value[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Pesticides/Polychlorinated Biphenyls						
γ-Chlordane	mg/kg	TOC	1.8E-02	C	0.006	2.9
Heptachlor epoxide	mg/kg	TOC	2.1E-02	F	0.5	4.2E-02
Heptachlor and heptachlor epoxide (Sum)	mg/kg	TOC	3.0E-02	C	0.03	1.0
4,4'-DDE	mg/kg	TOC	2.5E-02	F	0.5	5.0E-02
4,4'-DDT	mg/kg	TOC	3.8E-02	F	0.8	4.8E-02
DDT and metabolites (Sum)	mg/kg	TOC	6.4E-02	F	0.7	0.1
Aroclor 1260	mg/kg	TOC	1.5	F	0.5	2.9
PCBs (Sum)	mg/kg	TOC	1.9	C	1.4	1.3

Notes: A – NYSDEC Chronic (Benthos)
B – NYSDEC Acute (Benthos)
C – NYSDEC Bioaccumulation (Wildlife)
D – USEPA SQB
E – USEPA SQC
F – OME LEL (Benthos) (assumed 1% TOC)
G – OME SEL
H – ORNL Secondary Chronic (Benthos) (assumed 1% TOC)

[a] Maximum TOC normalized value

[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-62. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Surface Sediments (0–15 cm) from Otisco Lake in 2000 to Minimum Organic Carbon Normalized Screening Values

Analyte	Units	Measurement Basis	One-Half MDL[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Volatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
1,2-Dichlorobenzene	µg/kg	TOC	908	H	33,000	2.8E-02
1,3-Dichlorobenzene	µg/kg	TOC	908	D, H	170,000	5.3E-03
1,4-Dichlorobenzene	µg/kg	TOC	908	H	34,000	2.7E-02
Dichlorobenzenes (Sum)	µg/kg	TOC	70	A	12,000	5.8E-03
1,2,4-Trichlorobenzene	µg/kg	TOC	908	D	920,000	9.9E-04
Trichlorobenzenes (Sum)	µg/kg	TOC	70	A	91,000	7.7E-04
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/kg	TOC	8.2	F	2,000	4.1E-03
Low Molecular Weight Polycyclic Aromatic Hydrocarbons						
Naphthalene	µg/kg	TOC	908	H	24,000	3.8E-02
Acenaphthene	µg/kg	TOC	908	E	62,000	1.5E-02
Fluorene	µg/kg	TOC	908	A	8,000	0.1
Phenanthrene	µg/kg	TOC	908	F	56,000	1.6E-02
Anthracene	µg/kg	TOC	908	F	22,000	4.1E-02
2-Methylnaphthalene	µg/kg	TOC	908	A	34,000	2.7E-02
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Fluoranthene	µg/kg	TOC	908	F	75,000	1.2E-02
Pyrene	µg/kg	TOC	908	F	49,000	1.9E-02
Benz[a]anthracene	µg/kg	TOC	908	H	11,000	8.3E-02
Chrysene	µg/kg	TOC	908	F	34,000	2.7E-02
Benzo[k]fluoranthene	µg/kg	TOC	908	F	24,000	3.8E-02
Benzo[a]pyrene	µg/kg	TOC	908	H	14,000	6.5E-02
Indeno[1,2,3-cd]pyrene	µg/kg	TOC	908	F	20,000	4.5E-02
Dibenz[a,h]anthracene	µg/kg	TOC	908	F	6,000	0.2
Benzo[ghi]perylene	µg/kg	TOC	908	F	17,000	5.3E-02
Phenols						
Phenol	µg/kg	TOC	908	A	500	1.8
2-Methylphenol	µg/kg	TOC	908	H	1,200	0.8
Substituted Phenols						
4-Chloro-3-methylphenol[b]	µg/kg	TOC	4,690	H	3,300	1.4
Pentachlorophenol	µg/kg	TOC	23,400	A	40,000	0.6
Chlorinated Aliphatic Hydrocarbons						
Hexachloroethane	µg/kg	TOC	908	D, H	100,000	9.1E-03
Hexachlorobutadiene	µg/kg	TOC	908	C	4,000	0.2
Hexachlorocyclopentadiene	µg/kg	TOC	4,690	A	4,400	1.1

Table D-62. (cont.)

Analyte	Units	Measurement Basis	One-Half MDL[a]	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Halogenated Ethers						
4-Bromophenyl-phenyl ether	µg/kg	TOC	908	D	130,000	7.0E-03
Phthalates						
Diethyl phthalate	µg/kg	TOC	908	H	60,000	1.5E-02
Di-*n* -butyl phthalate	µg/kg	TOC	1,440	D, H	1,100,000	1.3E-03
Butylbenzyl phthalate	µg/kg	TOC	908	D, H	1,100,000	8.3E-04
Bis[2-Ethylhexyl]phthalate	µg/kg	TOC	908	A	199,500	4.6E-03
Miscellaneous Oxygenated Compounds						
Dibenzofuran	µg/kg	TOC	908	H	42,000	2.2E-02
Pesticides/Polychlorinated Biphenyls						
α-Hexachlorocyclohexane	mg/kg	TOC	8.2E-03	F	0.6	1.4E-02
β-Hexachlorocyclohexane	mg/kg	TOC	8.2E-03	F	0.5	1.6E-02
γ-Hexachlorocyclohexane	mg/kg	TOC	8.2E-03	F	0.3	2.7E-02
Hexachlorocyclohexane (Sum)	mg/kg	TOC	5.4E-04	A	0.06	9.0E-03
Aldrin	mg/kg	TOC	8.2E-03	F	0.2	4.1E-02
α-Chlordane	mg/kg	TOC	8.2E-03	C	0.006	1.4
Dieldrin	mg/kg	TOC	8.2E-03	F	0.2	4.1E-02
α-Endosulfan	mg/kg	TOC	8.2E-03	A	0.03	0.3
β-Endosulfan	mg/kg	TOC	2.7E-03	A	0.03	9.0E-02
Endrin	mg/kg	TOC	8.2E-03	F	0.3	2.7E-02
Heptachlor	mg/kg	TOC	8.2E-03	H	6.8	1.2E-03
Methoxychlor	mg/kg	TOC	8.2E-03	A	0.6	1.4E-02
4,4'-DDD	mg/kg	TOC	8.2E-03	F	0.8	1.0E-02
Toxaphene	mg/kg	TOC	0.8	A	0.01	82
Aroclor 1016	mg/kg	TOC	0.4	F	0.7	0.6
Aroclor 1221	mg/kg	TOC	0.4	H	12	3.4E-02
Aroclor 1232	mg/kg	TOC	0.4	H	60	6.8E-03
Aroclor 1242	mg/kg	TOC	0.4	H	17	2.4E-02
Aroclor 1248	mg/kg	TOC	0.4	F	3	0.1
Aroclor 1254	mg/kg	TOC	0.4	F	6	6.8E-02

Notes: A – NYSDEC Chronic (Benthos)
B – NYSDEC Acute (Benthos)
C – NYSDEC Bioaccumulation (Wildlife)
D – USEPA SQB
E – USEPA SQC
F – OME LEL (Benthos) (assumed 1% TOC)
G – OME SEL
H – ORNL Secondary Chronic (Benthos) (assumed 1% TOC)
MDL – maximum detection limit
[a] Maximum TOC normalized value
[b] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined
[c] Applied 4-Methyl-2-pentanone criteria

Table D-63. Ratios of Maximum Concentrations of Chemicals Detected in Wetland Soils Collected Near Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide					
Aluminum	mg/kg	13,700	A, D	50	274
Antimony	mg/kg	2.2	A	3.5	0.6
Arsenic	mg/kg	18	A, D	10	1.8
Barium	mg/kg	390	A	165	2.4
Beryllium	mg/kg	1.2	A	1.1	1.1
Cadmium	mg/kg	14	A	1.6	8.9
Chromium	mg/kg	154	A, B	0.4	385
Cobalt	mg/kg	8.5	A, D	20	0.4
Copper	mg/kg	167	A	40	4.2
Iron	mg/kg	32,400	A, C	200	162
Lead	mg/kg	259	A, D	50	5.2
Manganese	mg/kg	488	A, C	100	4.9
Mercury [b]	mg/kg	25	A, B	0.1	251
Nickel	mg/kg	75	A, D	30	2.5
Selenium	mg/kg	2.5	A	0.81	3.1
Silver	mg/kg	2.7	A, D	2	1.4
Thallium	mg/kg	2.5	A, D	1	2.5
Vanadium	mg/kg	36	A, D	2	18
Zinc	mg/kg	510	A, D	50	10
Cyanide[c]	mg/kg	5.4	A	0.9	6.0
Volatile Organic Compounds					
Aromatic Hydrocarbons					
Benzene	µg/kg	60	A	50	1.2
Toluene	µg/kg	1.7	A	50	3.4E-02
Ethylbenzene	µg/kg	24	A	50	0.5
Chlorinated Aromatic Hydrocarbons					
Chlorobenzene	µg/kg	600	A	50	12
1,2-Dichlorobenzene [d]	µg/kg	4,900	A	10	490
1,3-Dichlorobenzene [d]	µg/kg	1,380	A	10	138
1,4-Dichlorobenzene	µg/kg	9,800	B	20	490
1,2,4-Trichlorobenzene	µg/kg	6,550	B	20	328
Halogenated Alkanes					
Methylene chloride	µg/kg	2.1	A	2,000	1.1E-03
Semivolatile Organic Compounds					
Chlorinated Aromatic Hydrocarbons					
Hexachlorobenzene	µg/kg	5,355	A	2.5	2,142
Low Molecular Weight Polycyclic Aromatic Hydrocarbons					
Naphthalene	µg/kg	7,600	A	100	76
Acenaphthene	µg/kg	6,300	A, D	20,000	0.3
Phenanthrene	µg/kg	63,000	A	100	630
Anthracene	µg/kg	18,000	A	100	180

Table D-63. (cont.)

Analyte	Units	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
High Molecular Weight Polycyclic Aromatic Hydrocarbons					
Fluoranthene	µg/kg	86,000	A	100	860
Pyrene	µg/kg	83,000	A	100	830
Benzo(a)pyrene	µg/kg	48,000	A	100	480
Phenols					
Phenol	µg/kg	2,825	A	50	57
Pesticides/Polychlorinated Biphenyls					
β-Hexachlorocyclohexane	mg/kg	5.6E-03	A	0.001	5.6
DDT and metabolites (Sum)	mg/kg	5.6E-02	A	0.0025	22
Aldrin	mg/kg	4.5E-02	A	0.0025	18
Dieldrin	mg/kg	2.4E-02	A	0.0005	48
PCBs (Sum)	mg/kg	1.1	A	0.02	54

Notes: A – USEPA Region 4 ecological screening values for soil
B – ORNL toxic effects benchmark (earthworms)
C – ORNL toxic effects benchmark (microbes)
D – ORNL toxic effects benchmark (plants)

[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

[b] For USEPA Region 4, total mercury refers to inorganic, and for ORNL toxics effect benchmark (earthworms), total mercury refers to combined inorganic and organic.

[c] Applied free total cyanide criteria

[d] Applied dichlorobenzene criteria

Table D-64. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Wetland Soils Collected Near Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Volatile Organic Compounds					
Halogenated Alkanes					
1,2-Dichloroethane	µg/kg	7.5	A	400	1.9E-02
Carbon tetrachloride	µg/kg	7.5	A, C	1,000,000	7.5E-06
1,2-Dichloropropane	µg/kg	7.5	A, B	700,000	1.1E-05
Halogenated Alkenes					
Vinyl chloride	µg/kg	7.5	A	10	0.8
Tetrachloroethene	µg/kg	7.5	A	10	0.8
Semivolatile Organic Compounds					
Substituted Phenols					
2-Chlorophenol	µg/kg	3,150	A	10	315
2,4-Dichlorophenol[b]	µg/kg	3,150	A	20,000	0.2
2,4,6-Trichlorophenol	µg/kg	3,150	A, D	10,000	0.3
2,4,5-Trichlorophenol	µg/kg	6,500	A, D	4,000	1.6
Pentachlorophenol	µg/kg	10,500	A	2	5,250
4-Nitrophenol	µg/kg	10,500	A, D	7,000	1.5
2,4-Dinitrophenol	µg/kg	10,500	A, D	20,000	0.5
Chlorinated Aliphatic Hydrocarbons					
Hexachlorocyclopentadiene	µg/kg	3,150	A, D	10,000	0.3
Phthalates					
Dimethylphthalate	µg/kg	3,150	A, B	200,000	1.6E-02
Diethylphthalate	µg/kg	3,150	A, D	100,000	3.2E-02
Di-*n*-butylphthalate	µg/kg	3,150	A, D	200,000	1.6E-02
Organonitrogen Compounds					
Nitrobenzene	µg/kg	3,150	A, B	40,000	7.9E-02
N-Nitrosodiphenylamine	µg/kg	3,150	A, B	20,000	0.2
4-Chloroaniline[c]	µg/kg	3,150	A	20,000	0.2
Pesticides/Polychlorinated Biphenyls					
Endrin	mg/kg	5.5E-04	A	0.001	0.5

Notes: A – USEPA Region 4 ecological screening values for soil
B – ORNL toxic effects benchmark (earthworms)
C – ORNL toxic effects benchmark (microbes)
D – ORNL toxic effects benchmark (plants)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined
[b] Applied 3,4-Dichlorophenol criteria
[c] Applied 3-Chloroaniline criteria

Table D-65. Ratios of Maximum Concentrations of Chemicals Detected in Wetland Soils Collected Near Onondaga Lake in 2000 to Minimum Sediment Screening Values

Analyte	Units	Measure-ment Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide						
Aluminum	mg/kg	dry	13,700	F	58,030	0.2
Antimony	mg/kg	dry	2.2	A	2.0	1.1
Arsenic	mg/kg	dry	18	A, C	6.0	3.1
Cadmium	mg/kg	dry	14	G	0.59	24
Chromium	mg/kg	dry	154	A, C	26	5.9
Copper	mg/kg	dry	167	A, C	16	10
Iron	mg/kg	dry	32,400	A, C	20,000	1.6
Lead	mg/kg	dry	259	A, C	31	8.4
Manganese	mg/kg	dry	488	A, C	460	1.1
Mercury	mg/kg	dry	25	A, H	0.15	167
Nickel	mg/kg	dry	75	A, C	16	4.7
Silver	mg/kg	dry	2.7	A	1.0	2.7
Zinc	mg/kg	dry	510	A, C	120	4.3
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/kg	dry	5,355	B	10	536
Low Molecular Weight Polycyclic Aromatic Hydrocarbons						
Naphthalene	µg/kg	dry	7,600	G	33	232
Acenaphthene	µg/kg	dry	6,300	H	16	394
Fluorene	µg/kg	dry	12,000	G	35	347
Phenanthrene	µg/kg	dry	63,000	H	240	263
Anthracene	µg/kg	dry	18,000	G	32	570
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Fluoranthene	µg/kg	dry	86,000	G	64.2	1,340
Pyrene	µg/kg	dry	83,000	C	490	169
Benzo(a)anthracene	µg/kg	dry	49,000	G	260	188
Chrysene	µg/kg	dry	48,000	C	340	141
Benzo(a)pyrene	µg/kg	dry	48,000	G	350	137
Indeno(1,2,3-cd)pyrene	µg/kg	dry	28,000	G	78	359
Dibenz(a,h)anthracene	µg/kg	dry	7,900	F	28.2	280
Benzo(g,h,i)perylene	µg/kg	dry	28,000	G	290	97
PAH (total)	µg/kg	dry	184,400	H	4,000	46
Pesticides/Polychlorinated Biphenyls						
α-Hexachlorocyclohexane	µg/kg	dry	2.5	C	6	0.4
β-Hexachlorocyclohexane	µg/kg	dry	5.6	C	5	1.1
γ-Hexachlorocyclohexane	µg/kg	dry	6.3	B	0.2	31
Chlordane (Sum)	µg/kg	dry	30	B	5	5.9
Heptachlor epoxide	µg/kg	dry	15	C	5	2.9
4,4'-DDE	µg/kg	dry	17	H	2.2	7.8
4,4'-DDT	µg/kg	dry	51	H	1.6	32
DDT and metabolites (Sum)	µg/kg	dry	56	H	1.6	35
Aldrin	µg/kg	dry	45	C	2	23
Dieldrin	µg/kg	dry	24	B	0.6	40
Aroclor 1254	µg/kg	dry	483	C	60	8.1
Aroclor 1260	µg/kg	dry	576	C	5	115
PCBs (Sum)	µg/kg	dry	1,071	B	10	107

Notes: A – NYSDEC LEL (Benthos)
B – OME NOEL (Benthos)
C – OME LEL (Benthos)
E – USEPA NEC (Benthos)
F – USEPA PEC (Benthos)
G – USEPA TEC (Benthos)
H – NOAA ERL (Benthos)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-66. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Wetland Soils Collected Near Onondaga Lake in 2000 to Minimum Sediment Screening Values

Analyte	Units	Measure-ment Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Pesticides/Polychlorinated Biphenyls						
Endrin	µg/kg	dry	0.5	B	0.5	1.1
Heptachlor	µg/kg	dry	0.5	B	0.3	1.8
Toxaphene	µg/kg	dry	55	H	1.6	34
Aroclor 1016	µg/kg	dry	27	C	7	3.9
Aroclor 1248	µg/kg	dry	27	C	30	0.9

Notes: A – NYSDEC LEL (Benthos)
B – OME NOEL (Benthos)
C – OME LEL (Benthos)
E – USEPA NEC (Benthos)
F – USEPA PEC (Benthos)
G – USEPA TEC (Benthos)
H – NOAA ERL (Benthos)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined

Table D-67. Ratios of Maximum Concentrations of Chemicals Detected from the Dredge Spoils Area Near Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide					
Aluminum	mg/kg	23,300	A, D	50	466
Antimony	mg/kg	1.3	A	3.5	0.4
Arsenic	mg/kg	13.3	A, D	10	1.3
Barium	mg/kg	227	A	165	1.4
Beryllium	mg/kg	1	A	1.1	0.9
Cadmium	mg/kg	4.3	A	1.6	2.7
Chromium	mg/kg	62	A, B	0.4	154
Cobalt	mg/kg	8.2	A, D	20	0.4
Copper	mg/kg	62	A	40	1.5
Iron	mg/kg	29,600	A, C	200	148
Lead	mg/kg	157	A, D	50	3.1
Manganese	mg/kg	440	A, C	100	4.4
Mercury	mg/kg	99	A, B	0.1	988
Nickel	mg/kg	50	A, D	30	1.7
Selenium	mg/kg	2.1	A	0.81	2.6
Silver	mg/kg	0.9	A, D	2	0.4
Thallium	mg/kg	0.8	A, D	1	0.8
Vanadium	mg/kg	40.7	A, D	2	20
Zinc	mg/kg	186	A, D	50	3.7
Cyanide[c]	mg/kg	1.3	A	0.9	1.4
Volatile Organic Compounds					
Chlorinated Aromatic Hydrocarbons					
1,2-Dichlorobenzene[d]	µg/kg	97	A	10	9.7
1,3-Dichlorobenzene[d]	µg/kg	130	A	10	13
Dichlorobenzenes (Sum)	µg/kg	207	A	10	21
Semivolatile Organic Compounds					
Chlorinated Aromatic Hydrocarbons					
Hexachlorobenzene	µg/kg	490	A	2.5	196
Low Molecular Weight Polycyclic Aromatic Hydrocarbons					
Naphthalene	µg/kg	9,014	A	100	90
Acenaphthene	µg/kg	1,200	A	20,000	6.0E-02
Phenanthrene	µg/kg	9,500	A	100	95
Anthracene	µg/kg	1,900	A	100	19
High Molecular Weight Polycyclic Aromatic Hydrocarbons					
Fluoranthene	µg/kg	32,000	A	100	320
Pyrene	µg/kg	25,000	A	100	250
Benzo[a]pyrene	µg/kg	23,000	A	100	230
Phthalates					
Di-*n*-butyl phthalate	µg/kg	110	A, D	200,000	5.5E-04
Organonitrogen Compounds					
4-Chloroaniline[e]	µg/kg	98	A	20,000	4.9E-03
Pesticides/Polychlorinated Biphenyls					
β-Hexachlorocyclohexane	mg/kg	3.2E-03	A	0.001	3.2
DDT and metabolites (Sum)	mg/kg	1.5E-03	A	0.0025	0.6
Aldrin	mg/kg	1.2E-03	A	0.0025	0.5
Dieldrin	mg/kg	3.8E-03	A	0.0005	7.6
PCBs (Sum)	mg/kg	0.8	A	0.02	41

Notes: A – USEPA Region 4 ecological screening values for soil
B – ORNL toxic effects benchmark (earthworms)
C – ORNL toxic effects benchmark (microbes)
D – ORNL toxic effects benchmark (plants)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined
[b] For USEPA Region 4, total mercury refers to inorganic, and for ORNL toxics effect benchmark (earthworms), total mercury refers to combined inorganic and organic
[c] Applied free total cyanide criteria
[d] Applied dichlorobenzene criteria
[e] Applied 3-Chloroaniline criteria

Table D-68. Ratios of Halved Maximum Detection Limits for Undetected Chemicals from the Dredge Spoils Area Near Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Volatile Organic Compounds					
Chlorinated Aromatic Hydrocarbons					
1,4-Dichlorobenzene[b]	µg/kg	250	B	20	13
1,2,4-Trichlorobenzene[c]	µg/kg	250	B	20	13
Semivolatile Organic Compounds					
Phenols					
Phenol	µg/kg	250	A	50	5.0
Substituted Phenols					
2-Chlorophenol	µg/kg	250	A	10	25
2,4-Dichlorophenol[d]	µg/kg	1,300	A	20,000	6.5E-02
2,4,6-Trichlorophenol	µg/kg	1,300	A, D	10,000	0.1
2,4,5-Trichlorophenol	µg/kg	1,300	A, D	4,000	0.3
Pentachlorophenol	µg/kg	6,500	A	2	3,250
4-Nitrophenol	µg/kg	6,500	A, D	7,000	0.9
2,4-Dinitrophenol	µg/kg	6,500	A, D	20,000	0.3
Chlorinated Aliphatic Hydrocarbons					
Hexachlorocyclopentadiene	µg/kg	1,300	A, D	10,000	0.1
Phthalates					
Dimethyl phthalate	µg/kg	250	A, B	200,000	1.3E-03
Diethyl phthalate	µg/kg	250	A, D	100,000	2.5E-03
Organonitrogen Compounds					
Nitrobenzene	µg/kg	250	A, B	40,000	6.3E-03
N-nitrosodiphenylamine	µg/kg	250	A, B	20,000	1.3E-02

Notes: A – USEPA Region 4 ecological screening values for soil
B – ORNL toxic effects benchmark (earthworms)
C – ORNL toxic effects benchmark (microbes)
D – ORNL toxic effects benchmark (plants)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined
[b] Applied dichlorobenzene criteria
[c] Applied trichlorobenzene criteria
[d] Applied 3,4-Dichlorophenol criteria

Table D-69. Ratios of Maximum Concentrations of Chemicals Detected in the Dredge Spoils Area Near Onondaga Lake in 2000 to ORNL Soil Benchmarks for Plants

Analyte	Units	Maximum Detected Value	ORNL Soil Benchmark (Plants)[c]	Screening Ratio[a]
Total Metals and Cyanide				
Aluminum	mg/kg	23,300	50	466
Antimony	mg/kg	1.3	5	0.3
Arsenic	mg/kg	13.3	10	1.3
Barium	mg/kg	227	500	0.5
Beryllium	mg/kg	1	10	0.1
Cadmium	mg/kg	4.3	4	1.1
Chromium	mg/kg	62	1	62
Cobalt	mg/kg	8.2	20	0.4
Copper	mg/kg	62	100	0.6
Lead	mg/kg	157	50	3.1
Manganese	mg/kg	440	500	0.9
Mercury[b]	mg/kg	99	0.3	329
Nickel	mg/kg	50	30	1.7
Selenium	mg/kg	2.1	1	2.1
Silver	mg/kg	0.9	2	0.4
Thallium	mg/kg	0.8	1	0.8
Vanadium	mg/kg	41	2	20
Zinc	mg/kg	186	50	3.7
Semivolatile Organic Compounds				
Low Molecular Weight Polycyclic Aromatic Hydrocarbons				
Acenaphthene	µg/kg	1,200	20,000	6.0E-02
Phthalates				
Di-*n* -butyl phthalate	µg/kg	110	200,000	5.5E-04
Pesticides/Polychlorinated Biphenyls				
PCBs (Sum)	mg/kg	0.8	40	2.1E-02

Notes: [a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

[b] Screening criteria is for inorganic portion.

[c] ORNL – Oak Ridge National Laboratory. Efroymson et al. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision

Table D-70. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in the Dredge Spoils Area Near Onondaga Lake in 2000 to ORNL Soil Benchmarks for Plants

Analyte	Units	One-Half MDL	ORNL Soil Benchmark (Plants)[b]	Screening Ratio[a]
Semivolatile Organic Compounds				
Phenols				
Phenol	µg/kg	250	70,000	3.6E-03
Substituted Phenols				
2,4,5-Trichlorophenol	µg/kg	1,300	4,000	0.3
Pentachlorophenol	µg/kg	6,500	3,000	2.2
2,4-Dinitrophenol	µg/kg	6,500	20,000	0.3
Chlorinated Aliphatic Hydrocarbons				
Hexachlorocyclopentadiene	µg/kg	1,300	10,000	0.1
Phthalates				
Diethyl phthalate	µg/kg	250	100,000	2.5E-03

Notes: MDL – maximum detection limit

[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.

[b] ORNL – Oak Ridge National Laboratory. Efroymson et al. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision

Table D-71. Ratios of Maximum Concentrations of Chemicals Detected in Wetland Soils Collected Near Onondaga Lake in 2000 to ORNL Soil Benchmarks for Plants

Analyte	Units	Maximum Detected Value	ORNL Soil Benchmark (Plants)[c]	Screening Ratio[a]
Total Metals and Cyanide				
Aluminum	mg/kg	13,700	50	274
Antimony	mg/kg	2.2	5	0.4
Arsenic	mg/kg	18	10	1.8
Barium	mg/kg	390	500	0.8
Beryllium	mg/kg	1.2	10	0.1
Cadmium	mg/kg	14	4	3.6
Chromium	mg/kg	154	1	154
Cobalt	mg/kg	8.5	20	0.4
Copper	mg/kg	167	100	1.7
Lead	mg/kg	259	50	5.2
Manganese	mg/kg	488	500	1.0
Mercury [b]	mg/kg	25	0.3	84
Nickel	mg/kg	75	30	2.5
Selenium	mg/kg	2.5	1	2.5
Silver	mg/kg	2.7	2	1.4
Thallium	mg/kg	2.5	1	2.5
Vanadium	mg/kg	36	2	18
Zinc	mg/kg	510	50	10
Volatile Organic Compounds				
Aromatic Hydrocarbons				
Toluene	µg/kg	1.7	200	8.5E-03
Semivolatile Organic Compounds				
Low Molecular Weight Polycyclic Aromatic Hydrocarbons				
Acenaphthene	µg/kg	6,300	20,000	0.3
Phenols				
Phenol	µg/kg	2,825	70,000	4.0E-02
Pesticides/Polychlorinated Biphenyls				
PCBs (Sum)	mg/kg	1.1	40	2.7E-02

Notes: [a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

[b] Screening criteria is for inorganic portion.

[c] ORNL – Oak Ridge National Laboratory. Efroymson et al. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision

Table D-72. Ratios of Halved Maximum Detection Limits for Undetected Wetland Soils Collected Near Onondaga Lake in 2000 to ORNL Soil Benchmarks for Plants[b]

Analyte	Units	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Semivolatile Organic Compounds					
Substituted Phenols					
2,4,6-Trichlorophenol	µg/kg	3,150	A, D	10,000	0.3
2,4,5-Trichlorophenol	µg/kg	6,500	A, D	4,000	1.6
4-Nitrophenol	µg/kg	10,500	A, D	7,000	1.5
2,4-Dinitrophenol	µg/kg	10,500	A, D	20,000	0.5
Chlorinated Aliphatic Hydrocarbons			A, D		
Hexachlorocyclopentadiene	µg/kg	3,150	A, D	10,000	0.3
Phthalates			A, D		
Diethylphthalate	µg/kg	3,150	A, D	100,000	3.2E-02
Di-n-butylphthalate	µg/kg	3,150	A, D	200,000	1.6E-02

Notes: MDL – maximum detection limit

[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.

[b] ORNL – Oak Ridge National Laboratory. Efroymson et al. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision

Table D-73. Ratios of Maximum Concentrations of Detected Chemicals in Adult Fish Collected from Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide						
Aluminum	mg/kg	wet	115	H	5.86	20
Arsenic	mg/kg	wet	2	H	0.38	5.3
Barium	mg/kg	wet	6.7	H	30.2	0.2
Beryllium	mg/kg	wet	3.5E-02	H	3.71	9.4E-03
Cadmium	mg/kg	wet	0.9	F	2.86	0.3
Chromium	mg/kg	wet	14	F	1.97	7.2
Copper	mg/kg	wet	19	H	85.4	0.2
Lead	mg/kg	wet	1.9	F	2.23	0.8
Manganese	mg/kg	wet	45	H	494	9.2E-02
Mercury	mg/kg	wet	1.9	F	0.013	145
Nickel	mg/kg	wet	14	F	153	9.2E-02
Selenium	mg/kg	wet	2.4	F	0.79	3.0
Vanadium	mg/kg	wet	1.7	H	1.1	1.5
Zinc	mg/kg	wet	425	F	28.6	15
Cyanide	mg/kg	wet	14	H	363	3.9E-02
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/kg	wet	280	B	330	0.8
Pesticides/Polychlorinated Biphenyls						
γ-Hexachlorocyclohexane	µg/kg	wet	1.7	F	3,950	4.3E-04
Hexachlorocyclohexane isomers (Sum)	µg/kg	wet	1.7	B, H	100	1.7E-02
Aldrin	µg/kg	wet	3	H	1,120	2.7E-03
α-Chlordane[b]	µg/kg	wet	7.4	F	4,200	1.8E-03
γ-Chlordane[b]	µg/kg	wet	5	F	4,200	1.2E-03
Oxichlordane[b]	µg/kg	wet	10	F	4,200	2.4E-03
Chlordane isomers (Sum)	µg/kg	wet	15	B	500	3.0E-02
Dieldrin	µg/kg	wet	100	H	112	0.9
Aldrin and dieldrin (Sum)	µg/kg	wet	100	B	120	0.8
Endosulfan sulfate[c]	µg/kg	wet	2.8	H	840	3.3E-03
Endrin	µg/kg	wet	46	F	20	2.3
DDT and metabolites (Sum)	µg/kg	wet	499	F	6	83
Aroclor 1248	µg/kg	wet	1,700	H	109	16
PCBs (Sum)	µg/kg	wet	3,400	A	100	34
Dioxins/Furans						
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	wet	64	F	2	32
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	ng/kg	wet	4.0	H	5.6	0.7
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	wet	27	H	900	3.0E-02
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg	wet	114	H	90	1.3
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg	wet	7.8	H	900	8.7E-03

Notes: A – IJC criteria (birds)
B – NYSDEC criteria (piscivores)
C – ORNL LOAEL (birds)
D – ORNL LOAEL (great blue heron)
E – ORNL LOAEL (mammals)
F – ORNL NOAEL (birds)
G – ORNL NOAEL (great blue heron)
H – ORNL NOAEL (mammals)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined
[b] Criteria for chlordane was applied to the chlordane isomers
[c] Endosulfan criteria was applied

Table D-74. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Adult Fish Collected from Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide						
Antimony	mg/kg	wet	2.5E-02	H	0.38	6.6E-02
Thallium	mg/kg	wet	1.0E-02	H	0.042	0.2
Pesticides/Polychlorinated Biphenyls						
α-Endosulfan[b]	µg/kg	wet	10	H	840	1.2E-02
β-Endosulfan	µg/kg	wet	180	H	840	0.2
Heptachlor	µg/kg	wet	10	H	730	1.4E-02
Heptachlor and heptachlor epoxide (Sum)	µg/kg	wet	10	B	200	5.0E-02
Methoxychlor	µg/kg	wet	10	H	22,500	4.4E-04
Toxaphene	µg/kg	wet	1,000	H	44,900	2.2E-02
Aroclor 1016	µg/kg	wet	50	H	10,000	5.0E-03
Aroclor 1254	µg/kg	wet	50	F	355	0.1

Notes: A – IJC criteria (birds)
B – NYSDEC criteria (piscivores)
C – ORNL LOAEL (birds)
D – ORNL LOAEL (great blue heron)
E – ORNL LOAEL (mammals)
F – ORNL NOAEL (birds)
G – ORNL NOAEL (great blue heron)
H – ORNL NOAEL (mammals)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined.
[b] Criteria for endosulfan was applied to the endosulfan isomers.

Table D-75. Ratios of Maximum Concentrations of Detected Chemicals in Juvenile Fish Collected from Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide						
Aluminum	mg/kg	wet	66	H	5.86	11
Arsenic	mg/kg	wet	1.5	H	0.38	3.9
Barium	mg/kg	wet	5	H	30.2	0.2
Beryllium	mg/kg	wet	3.0E-02	H	3.71	8.1E-03
Cadmium	mg/kg	wet	0.2	F	2.86	8.0E-02
Chromium	mg/kg	wet	1	F	1.97	0.5
Copper	mg/kg	wet	4.9	H	85.4	5.7E-02
Lead	mg/kg	wet	1.0	F	2.23	0.4
Manganese	mg/kg	wet	14	H	494	2.8E-02
Mercury	ng/g	wet	224	F	13	17
Nickel	mg/kg	wet	13	F	153	8.5E-02
Selenium	mg/kg	wet	2.6	F	0.79	3.2
Thallium	mg/kg	wet	2.0E-02	H	0.042	0.5
Vanadium	mg/kg	wet	1.4	H	1.1	1.2
Zinc	mg/kg	wet	154	F	28.6	5.4
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene (GC/ECD)	µg/kg	wet	47	B	330	0.1
Hexachlorocyclohexane isomers (Sum)	µg/kg	wet	5.4	B	330	1.6E-02
Pesticides/Polychlorinated Biphenyls						
β-Hexachlorocyclohexane	µg/kg	wet	5.4	H	2,250	2.4E-03
Dieldrin	µg/kg	wet	26	H	112	0.2
Aldrin and dieldrin (Sum)	µg/kg	wet	26	B	120	0.2
Endrin	µg/kg	wet	33	F	20	1.7
DDT and metabolites (Sum)	µg/kg	wet	87	F	6	15
Aroclor 1248	µg/kg	wet	2,100	H	109	19
PCBs (Sum)	µg/kg	wet	2,370	A	100	24

Notes: A – IJC criteria (birds)
B – NYSDEC criteria (piscivores)
C – ORNL LOAEL (birds)
D – ORNL LOAEL (great blue heron)
E – ORNL LOAEL (mammals)
F – ORNL NOAEL (birds)
G – ORNL NOAEL (great blue heron)
H – ORNL NOAEL (mammals)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined.

Table D-76. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Juvenile Fish Collected from Onondaga Lake in 2000 to Minimum Screening Values

Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide						
Antimony	mg/kg	wet	2.5E-02	H	0.38	6.6E-02
Cyanide	mg/kg	wet	0.4	H	363	1.1E-03
Pesticides/Polychlorinated Biphenyls						
γ-Hexachlorocyclohexane	µg/kg	wet	5.0	F	3,950	1.3E-03
Aldrin	µg/kg	wet	5.0	H	1,120	4.5E-03
α-Chlordane[b]	µg/kg	wet	5.0	F	4,200	1.2E-03
γ-Chlordane[b]	µg/kg	wet	5.0	F	4,200	1.2E-03
α-Endosulfan[c]	µg/kg	wet	5.0	H	840	6.0E-03
β-Endosulfan[c]	µg/kg	wet	5.0	H	840	6.0E-03
Endosulfan sulfate[c]	µg/kg	wet	5.0	H	840	6.0E-03
Heptachlor	µg/kg	wet	6.0	H	730	8.2E-03
Methoxychlor	µg/kg	wet	5.0	H	22,500	2.2E-04
Toxaphene	µg/kg	wet	500	H	44,900	1.1E-02
Aroclor 1016	µg/kg	wet	50	H	10,000	5.0E-03
Aroclor 1242	µg/kg	wet	50	H	504	9.9E-02
Aroclor 1254	µg/kg	wet	50	F	355	0.1

Notes: A – IJC criteria (birds)
B – NYSDEC criteria (piscivores)
C – ORNL LOAEL (birds)
D – ORNL LOAEL (great blue heron)
E – ORNL LOAEL (mammals)
F – ORNL NOAEL (birds)
G – ORNL NOAEL (great blue heron)
H – ORNL NOAEL (mammals)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined
[b] Criteria for chlordane was applied to the chlordane isomers
[c] Criteria for endosulfan was applied to the endosulfan isomers

Table D-77. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the Mink (1999–2000)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum	369		14,500				39	1.93	Ondreicka et al. (1966)	11	20
Antimony		0.1	5.4				1.4E-02	0.125	Schroeder et al. (1968)	8.0E-02	0.1
Arsenic	6.8		47				0.6	0.126	Schroeder and Mitchner (1971)	1.6	4.4
Barium	23		2,070				3.3	5.1	Perry et al. (1983)	3.4	0.6
Beryllium	0.1		0.8				1.2E-02	0.66	Schroeder and Mitchner (1975)	6.5E-03	1.8E-02
Cadmium	3.1		15				0.2	1	Sutou et al. (1980)	7.2E-02	0.2
Calcium	319,435		409,000				24,588	N/A	N/A	N/A	N/A
Chromium	60		4,180		3.9E-03		7.8	3.28	Mackenzie et al. (1958)	1.3	2.4
Cobalt	3.5		170				0.4	5	Nation et al. (1983)	3.2E-02	7.9E-02
Copper	72		366				5.8	11.7	Aulerich et al. (1982)	0.2	0.5
Iron	721		50,800		0.6		93	N/A	N/A	N/A	N/A
Lead	6.4		750		3.1E-03		1.1	8	Azar et al. (1973)	0.3	0.1
Magnesium	9,326		34,700				735	N/A	N/A	N/A	N/A
Manganese	140		1190		0.6		12	88	Laskey et al. (1982)	4.0E-02	0.1
Methylmercury	8.7		10		1.4E-05		0.7	0.015	Wobeser et al. (1976)	48	45
Mercury	8.7		78		1.0E-04		0.7	1	Aulerich et al. (1974)	13	0.7
Nickel	60		1,670		4.7E-03		5.8	40	Ambrose et al. (1976)	5.1E-02	0.1
Potassium	79,638		3,480				6,055	N/A	N/A	N/A	N/A
Selenium	12		5.9				0.9	0.2	Rosenfeld and Beath (1954)	1.0	4.5
Silver	0.2		6.1				1.9E-02	18.1	Walker (1971)	4.6E-04	1.1E-03
Sodium	24,907		11,900				1,902	N/A	N/A	N/A	N/A
Thallium	8.1E-02		2.9				8.3E-03	0.0074	Formigli et al. (1986)	0.5	1.1
Vanadium	6.8		319				0.8	0.21	Domingo et al. (1986)	1.3	3.6
Zinc	1,272		421				97	160	Schlicker and Cox (1968)	0.2	0.6
Cyanide	69		6.4				5.3	68.7	Tewe and Maner (1981)	N/A	7.7E-02
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene			42		6.3E-03		3.3E-02	26	Nawrot and Staples (1979)	–	1.3E-03
Toluene			8.3		1.6E-04		6.3E-03	26	Nawrot and Staples (1979)	–	2.4E-04
Ethylbenzene			71			2.5E-04	5.4E-02	26	Nawrot and Staples (1979)	–	2.1E-03
Styrene			4.8			2.5E-04	3.7E-03	N/A	N/A	–	N/A
Xylene (m,p)			100				7.6E-02	2.1	Marks et al. (1982)	–	N/A
Xylene (o)			23				1.7E-02	2.1	Marks et al. (1982)	–	N/A
Xylene isomers (total)			330		3.3E-04		0.3	2.1	Marks et al. (1982)	–	0.1
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene			1,000		1.2E-02		0.8	N/A	N/A	–	N/A
1,2-Dichlorobenzene			48		3.2E-03		3.7E-02	250	Lake et al. (1997)	–	1.5E-04
1,3-Dichlorobenzene			37				2.8E-02	250	Lake et al. (1997)	–	1.1E-04
1,4-Dichlorobenzene			170		3.4E-03		0.1	250	Lake et al. (1997)	–	5.2E-04
Dichlorobenzenes (sum)			239		3.4E-03		0.2	250	Lake et al. (1997)	–	7.3E-04
1,2,4-Trichlorobenzene			35				2.7E-02	8	Cote et al. (1988)	–	3.3E-03
Trichlorobenzenes (sum)			35				2.7E-02	8	Cote et al. (1988)	–	3.3E-03
Halogenated Alkanes											
Methylene chloride			8.0			2.2E-04	6.1E-03	5.85	NCA (1982)	–	1.0E-03
Chloroform					8.5E-04		8.9E-05	15	Palmer et al. (1979)	–	6.0E-06
1,1-Dichloroethane			1.2			2.5E-04	9.4E-04	50	Lane et al. (1982)	–	1.9E-05
1,2-Dichloroethane			0.1			2.5E-04	1.3E-04	50	Lane et al. (1982)	–	2.6E-06
1,1,1-Trichloroethane			2.7E-03			2.5E-04	2.8E-05	1,000	Lane et al. (1982)	–	2.8E-08
Bromodichloromethane				7.0	2.4E-04		5.3E-03	N/A	N/A	–	N/A

Table D-77. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Halogenated Alkenes											
cis -1,2-dichloroethene			2.4E-03			2.5E-04	2.8E-05	2.5	Quast et al. (1983)	–	1.1E-05
Trichloroethene			4.0E-03			2.5E-04	2.9E-05	0.7	Buben and O'Flaherty (1985)	–	4.2E-05
Tetrachloroethene			3.0E-03			2.5E-04	2.9E-05	1.4	Buben and O'Flaherty (1985)	–	2.0E-05
Ketones											
Acetone			0.3				2.2E-04	10	USEPA (1986)	–	2.2E-05
2-Butanone			9.4E-02			5.0E-03	6.0E-04	N/A	N/A	–	N/A
Miscellaneous Volatile Compounds											
Carbon disulfide			0.1			2.5E-04	1.3E-04	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	0.7		6.8				5.9E-02	0.05	Fassbender et al. (1977)	5.3E-02	1.2
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene			26,000				20	1	Mackenzie and Angevine (1981)	–	20
Acenaphthylene			19				1.4E-02	1	Mackenzie and Angevine (1981)	–	1.4E-02
Acenaphthene			85				6.5E-02	1	Mackenzie and Angevine (1981)	–	6.5E-02
Fluorene			140				0.1	1	Mackenzie and Angevine (1981)	–	0.1
Phenanthrene			630				0.5	1	Mackenzie and Angevine (1981)	–	0.5
Anthracene			95				7.2E-02	1	Mackenzie and Angevine (1981)	–	7.2E-02
2-Methylnaphthalene			2,800				2.13	1	Mackenzie and Angevine (1981)	–	2.1
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene			250				0.2	1	Mackenzie and Angevine (1981)	–	0.2
Pyrene			150				0.1	1	Mackenzie and Angevine (1981)	–	0.1
Benz[a]anthracene			100				7.6E-02	1	Mackenzie and Angevine (1981)	–	7.6E-02
Chrysene			100				7.6E-02	1	Mackenzie and Angevine (1981)	–	7.6E-02
Benzo[b]fluoranthene			57				4.3E-02	1	Mackenzie and Angevine (1981)	–	4.3E-02
Benzo[k]fluoranthene			60				4.6E-02	1	Mackenzie and Angevine (1981)	–	4.6E-02
Benzo[a]pyrene			65				4.9E-02	1	Mackenzie and Angevine (1981)	–	4.9E-02
Indeno[1,2,3-cd]pyrene			38				2.9E-02	1	Mackenzie and Angevine (1981)	–	2.9E-02
Dibenz[a,h]anthracene			17				1.3E-02	1	Mackenzie and Angevine (1981)	–	1.3E-02
Benzo[ghi]perylene			35				2.7E-02	1	Mackenzie and Angevine (1981)	–	2.7E-02
Phenols											
Phenol			2.6				2.0E-03	523	NCI (1980)	–	3.8E-06
2-Methylphenol			1.1				8.4E-04	219	Hornshaw et al. (1986)	–	3.8E-06
4-Methylphenol			2.2				1.7E-03	219	Hornshaw et al. (1986)	–	7.6E-06
2,4-Dimethylphenol			0.99				7.5E-04	N/A	N/A	–	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate			5.1				3.9E-03	18.3	Lamb et al. (1987)	–	2.1E-04
Di-*n* -butyl phthalate			0.2				1.3E-04	550	Lamb et al. (1987)	–	2.3E-07
Miscellaneous Oxygenated Compounds											
Dibenzofuran			81				6.2E-02	N/A	N/A	–	N/A
Carbazole			19				1.4E-02	N/A	N/A	–	N/A

Table D-77. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Organonitrogen Compounds											
4-Chloroaniline			0.1				1.1E-04	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane		3.2E-02	1.3E-02				2.5E-03	8	Palmer et al. (1978)	6.2E-04	3.1E-04
β-Hexachlorocyclohexane	2.8E-02		9.7E-03				2.1E-03	8	Palmer et al. (1978)	6.1E-04	2.7E-04
δ-Hexachlorocyclohexane		3.6E-02	4.8E-03				2.7E-03	8	Palmer et al. (1978)	3.3E-04	3.4E-04
γ-Hexachlorocyclohexane	5.7E-03		4.2E-03				4.4E-04	8	Palmer et al. (1978)	3.3E-04	5.4E-05
Aldrin	1.1E-02		3.5E-03				8.5E-04	0.2	Treon and Cleveland (1955)	1.3E-02	4.3E-03
α-Chlordane	2.1E-02		1.5E-02				1.6E-03	0.075	FAO/WHO (1983)	3.6E-04	2.1E-02
γ-Chlordane	1.5E-02		5.0E-02				1.2E-03	0.075	FAO/WHO (1983)	3.7E-04	1.6E-02
Chlordane isomers (sum)	6.0E-02		5.0E-02				4.6E-03	0.075	FAO/WHO (1983)	2.8E-03	6.1E-02
Dieldrin	0.4		3.6E-02				3.0E-02	0.018	Harr et al. (1970)	1.5	1.7
α-Endosulfan		3.2E-02	8.7E-03				2.5E-03	0.15	Dikshith et al. (1984)	1.8E-02	1.6E-02
Endosulfan sulfate	1.1E-02		3.1E-02				8.5E-04	0.15	Dikshith et al. (1984)	2.0E-02	5.7E-03
Endrin	0.2		8.4E-03				1.4E-02	0.065	Treon et al. (1955)	0.1	0.2
Endrin aldehyde	1.9E-02		3.5E-03				2.6E-06	0.065	Treon et al. (1955)	3.6E-02	4.0E-05
Endrin ketone	2.3E-02		4.9E-02				1.8E-03	0.065	Treon et al. (1955)	1.9E-02	2.7E-02
Heptachlor		3.2E-02	5.3E-03				2.5E-03	0.075	Kinoshita and Kempf (1970)	2.6E-02	3.3E-02
Heptachlor epoxide	3.2E-02		5.2E-02				2.5E-03	0.075	Kinoshita and Kempf (1970)	6.7E-02	3.3E-02
Methoxychlor		3.2E-02	4.0E-03				2.5E-03	4	Gray et al. (1988)	4.6E-04	6.2E-04
4,4'-DDD	0.4		3.9E-03				2.8E-02	85	NCI (1978) cited in ATSDR (1994)	3.2E-04	3.3E-04
4,4'-DDE	1.4		2.1E-02				0.1	28	Gellert and Heinrich (1975), as cited in ATSDR (1994)	4.2E-03	3.8E-03
4,4'-DDT	0.2		8.8E-02				1.3E-02	0.8	Fitzhugh (1948)	6.3E-02	1.7E-02
DDT and metabolites (Sum)	1.9		8.8E-02				0.1	0.8	Fitzhugh (1948)	–	0.2
Aroclor 1221		0.5	1.6				3.7E-02	0.01	Barsotti et al. (1976)	3.3	3.7
Aroclor 1242	1.2		19				0.1	0.069	Bleavins et al. (1980)	18	1.5
Aroclor 1248	8.4		0.1				0.6	0.01	Barsotti et al. (1976)	63	64
Aroclor 1254		0.2	1.3				1.9E-02	0.0068	McCoy et al. (1995)	0.1	2.8
Aroclor 1260	9.0		1.0				0.7	6.9	Linder et al. (1974)	9.8E-02	9.9E-02
Aroclor 1268		0.2	0.2				1.8E-02	0.01	Barsotti et al. (1976)	1.7	1.8
Aroclors 1254 and 1260	2.1						0.2	0.0068	McCoy et al. (1995)	–	23
PCBs (sum)	13		21				1.0	0.0068	McCoy et al. (1995)	16	151

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
[a] Hazard quotients equal to or greater than one are outlined
Maximum fish dry weight concentration differs from maximum wet weight concentration listed in Tables D-48 and D-49
Methylmercury in fish was assumed to be equal to the total mercury value
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-78. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Mink (1999–2000)

Analyte	Fish Detected Value[a] (ng/kg dry)	Sediment Maximum Detected Value[a] (ng/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Mammalian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8	47	0.2	0.01	1.7E-03			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	5.6	18	0.4	0.01	4.4E-03			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.4	29	5.5E-02	0.01	5.5E-04			
1,2,3,4,7,8-Hexachlorodibenzofuran	21	79	1.7	0.1	0.2			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	1.9	2.8	0.1	0.1	1.4E-02			
1,2,3,6,7,8-Hexachlorodibenzofuran	7.8	19	0.6	0.1	6.1E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	6.4	5.9	0.5	0.1	4.9E-02			
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	7.4	2.4E-02	0.1	2.4E-03			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	1.2	5.6	9.5E-02	0.1	9.5E-03			
1,2,3,7,8-Pentachlorodibenzofuran	27	68	2.1	0.05	0.1			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	6.4	4.1	0.5	1	0.5			
2,3,4,6,7,8-Hexachlorodibenzofuran	1.9	7.9	0.2	0.1	1.5E-02			
2,3,4,7,8-Pentachlorodibenzofuran	114	231	8.8	0.5	4.4			
2,3,7,8-Tetrachlorodibenzofuran	64	268	5.1	0.1	0.5			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	3.4	1.1	0.3	1	0.3			
Octachlorodibenzofuran	0.2	214	0.2	0.0001	1.8E-05			
Octachlorodibenzo-*p*-dioxin	2.6	39	0.2	0.0001	2.3E-05			
					6.1	1.0	14	6.1

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO mammalian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] TRV is for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined

Table D-79. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposure for the Mink (1999–2000)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Halogenated Alkanes								
Chloromethane		7.5	5.0E-04	5.8E-03	N/A	N/A	–	N/A
Bromomethane		7.5	5.0E-04	5.8E-03	N/A	N/A	–	N/A
Chloroethane		7.5	5.0E-04	5.8E-03	N/A	N/A	–	N/A
Carbon tetrachloride		7.0	2.5E-04	5.3E-03	16	Alumot et al. (1976)	–	3.3E-04
1,2-Dichloropropane		7.0	2.5E-04	5.3E-03	N/A	N/A	–	N/A
1,1,2-Trichloroethane		7.0	2.5E-04	5.3E-03	1,000	Lane et al. (1982)	–	5.3E-06
Bromoform		7.0	2.5E-04	5.3E-03	N/A	N/A	–	N/A
1,1,2,2-Tetrachloroethane		7.0	2.5E-04	5.3E-03	N/A	N/A	–	N/A
Dibromochloromethane		7.0	2.5E-04	5.3E-03	N/A	N/A	–	N/A
Halogenated Alkenes								
Vinyl chloride		7.5	5.0E-04	5.8E-03	0.17	Feron et al. (1981)	–	3.4E-02
1,1-Dichloroethene		7.0	2.5E-04	5.3E-03	2.5	Quast et al. (1983)	–	2.1E-03
trans-1,2-dichloroethene		7.0	2.5E-04	5.3E-03	2.5	Quast et al. (1983)	–	2.1E-03
cis-1,3-Dichloropropene		7.0	2.5E-04	5.3E-03	N/A	N/A	–	N/A
trans-1,3-Dichloropropene		7.0	2.5E-04	5.3E-03	N/A	N/A	–	N/A
Ketones								
2-Hexanone		15	2.5E-03	1.1E-02	N/A	N/A	–	N/A
4-Methyl-2-pentanone		15	2.5E-03	1.1E-02	N/A	N/A	–	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene		115		8.7E-02	N/A	N/A	–	N/A
Substituted Phenols								
2-Chlorophenol		115		8.7E-02	N/A	N/A	–	N/A
2,4-Dichlorophenol		600		0.5	N/A	N/A	–	N/A
4-Chloro-3-methylphenol		600		0.5	N/A	N/A	–	N/A
2,4,6-Trichlorophenol		600		0.5	N/A	N/A	–	N/A
2,4,5-Trichlorophenol		600		0.5	N/A	N/A	–	N/A
Pentachlorophenol		3,000		2.3	0.24	Schwetz et al. (1978)	–	9.5
2-Nitrophenol		600		0.5	N/A	N/A	–	N/A
4-Nitrophenol		3,000		2.3	N/A	N/A	–	N/A
2,4-Dinitrophenol		3,000		2.3	N/A	N/A	–	N/A
2-Methyl-4,6-dinitrophenol		3,000		2.3	N/A	N/A	–	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane		115		8.7E-02	0.05	Tugarinova et al. (1960	–	1.7
Hexachlorobutadiene		115		8.7E-02	0.2	Kociba et al. (1977)	–	0.4
Hexachlorocyclopentadiene		600		0.5	N/A	N/A	–	N/A

Table D-79. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Halogenated Ethers								
bis[2-chloroethyl]ether		115		8.7E-02	N/A	N/A	–	N/A
4-Chlorophenyl-phenyl ether		115		8.7E-02	N/A	N/A	–	N/A
4-Bromophenyl-phenyl ether		115		8.7E-02	N/A	N/A	–	N/A
bis[2-chloroethoxy]methane		115		8.7E-02	N/A	N/A	–	N/A
Phthalates								
Diethyl phthalate		115		8.7E-02	4,580	Lamb et al. (1987)	–	1.9E-05
Dimethyl phthalate		115		8.7E-02	N/A	N/A	–	N/A
Butylbenzyl phthalate		115		8.7E-02	N/A	N/A	–	N/A
Di-*n* -octyl phthalate		115		8.7E-02	N/A	N/A	–	N/A
Miscellaneous Oxygenated Compounds								
Isophorone		115		8.7E-02	N/A	N/A	–	N/A
Benzyl alcohol		600		0.5	N/A	N/A	–	N/A
Organonitrogen Compounds								
Nitrobenzene		115		8.7E-02	N/A	N/A	–	N/A
N -nitroso-di-*n* -propylamine		115		8.7E-02	N/A	N/A	–	N/A
2-Nitroaniline		235		0.2	N/A	N/A	–	N/A
3-Nitroaniline		3,000		2.3	N/A	N/A	–	N/A
4-Nitroaniline		3,000		2.3	N/A	N/A	–	N/A
2,6-Dinitrotoluene		600		0.5	N/A	N/A	–	N/A
2,4-Dinitrotoluene		600		0.5	N/A	N/A	–	N/A
N -nitrosodiphenylamine		115		8.7E-02	N/A	N/A	–	N/A
3,3'-Dichlorobenzidine		115		8.7E-02	N/A	N/A	–	N/A
N-nitroso dimethylamine		600		4.6E-01	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls								
β-Endosulfan	0.7	5.5E-04		5.3E-02	0.15	Dikshith et al. (1984)	0.4	0.4
Toxaphene	4.1	5.7E-02		0.3	8	Kennedy et al. (1973)	3.7E-02	3.9E-02
Aroclor 1016	0.2	0.8		1.9E-02	1.37	Bleavins et al. (1980)	1.3E-02	1.4E-02
Aroclor 1232	0.2	0.8		1.9E-02	0.01	Barsotti et al. (1976)	1.7	1.9

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
Maximum fish dry weight concentration differs from maximum wet weight concentration listed in Tables D-48 and D-49
[a] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-80. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the Belted Kingfisher (1999–2000)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum	369		14,500				60	110	Carriere et al. (1986)	0.1	0.5
Antimony		0.1	5.4				2.2E-02	1,400	Damron and Wilson (1975)	2.1E-06	1.5E-05
Arsenic	6.8		47				0.9	2.46	USFWS (1964)	8.6E-02	0.3
Barium	23		2,070				5.1	20.8	Johnson et al. (1960)	3.8E-02	0.2
Beryllium	0.1		0.8				1.8E-02	0.66	Schroeder and Mitchner (1975)*	N/A	2.7E-02
Cadmium	3.1		15				0.4	1.45	White and Finley (1978)	5.9E-02	0.3
Calcium	319,435		409,000				37,852	N/A	N/A	N/A	N/A
Chromium	60		4,180		3.9E-03		12	1	Haseltine et al. (nd)	1.7	12
Cobalt	3.5		170				0.6	5	Nation et al. (1983)*	N/A	0.1
Copper	72		366				8.9	47	Mehring et al. (1960)	4.7E-02	0.2
Iron	721		50,800		0.6		144	N/A	N/A	N/A	N/A
Lead	6.4		750		3.1E-03		1.6	1.13	Edens et al. (1976)	0.1	1.4
Magnesium	9,326		34,700				1,132	N/A	N/A	N/A	N/A
Manganese	140		1,190		0.6		18	977	Laskey and Edens (1985)	3.7E-03	1.8E-02
Methylmercury	8.7		10		1.4E-05		1.0	0.0064	Heinz (1979)	265	161
Mercury	8.7		78		1.0E-04		1.1	0.45	Hill and Schaffner (1976)	30	2.5
Nickel	60		1,670		4.7E-03		9.0	77.4	Cain and Pafford (1981)	2.1E-02	0.1
Potassium	79,638		3,480				9,322	N/A	N/A	N/A	N/A
Selenium	12		5.9				1.4	0.4	Heinz et al. (1989)	0.7	3.4
Silver	0.2		6.1				3.0E-02	18.1	Walker (1971)*	N/A	N/A
Sodium	24,907		11,900				2,928	N/A	N/A	N/A	N/A
Thallium	8.1E-02		2.9				1.3E-02	0.237	Hudson et al. (1984)	9.9E-03	5.4E-02
Vanadium	6.8		319				1.2	11.4	White and Dieter (1978)	1.6E-02	0.1
Zinc	1,272		421				149.37	14.5	Stahl et al. (1990)	0.4	10
Cyanide	69		6.4				8.1	68.7	Tewe and Maner (1981)*	N/A	0.1
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene			42		6.3E-03		5.0E-02	N/A	N/A	–	N/A
Toluene			8.3		1.6E-04		9.7E-03	26	Nawrot and Staples (1979)*	–	3.7E-04
Ethylbenzene			71			2.5E-04	8.3E-02	N/A	N/A	–	N/A
Styrene			4.8			2.5E-04	5.6E-03	N/A	N/A	–	N/A
Xylene (m,p)			100				0.1	2.1	Marks et al. (1982)*	–	5.6E-02
Xylene (o)			23				2.7E-02	2.1	Marks et al. (1982)*	–	1.3E-02
Xylene isomers (total)			330		3.3E-04		0.4	2.1	Marks et al. (1982)*	–	0.2
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene			1,000		1.2E-02		1.2	N/A	N/A	–	N/A
1,2-Dichlorobenzene			48		3.2E-03		5.7E-02	6	Jori et al. (1982)	–	9.4E-03
1,3-Dichlorobenzene			37				4.3E-02	6	Jori et al. (1982)	–	7.2E-03
1,4-Dichlorobenzene			170		3.4E-03		0.2	6	Jori et al. (1982)	–	3.3E-02
Dichlorobenzenes (sum)			239		3.4E-03		0.3	6	Jori et al. (1982)	–	4.7E-02
1,2,4-Trichlorobenzene			35				4.1E-02	8	Cote et al. (1988)*	–	5.1E-03
Trichlorobenzenes (sum)			35				4.1E-02	8	Cote et al. (1988)*	–	5.1E-03
Halogenated Alkanes											
Methylene chloride			8.0			2.2E-04	9.4E-03	5.85	NCA (1982)*	–	1.6E-03
Chloroform					8.5E-04		9.7E-05	15	Palmer et al. (1979)*	–	6.5E-06
1,1-Dichloroethane			1.2			2.5E-04	1.4E-03	17.2	Almut et al. (1976)	–	8.3E-05
1,2-Dichloroethane			0.1			2.5E-04	1.9E-04	17.2	Almut et al. (1976)	–	1.1E-05
1,1,1-Trichloroethane			2.7E-03			2.5E-04	3.2E-05	1,000	Lane et al. (1982)*	–	3.2E-08
Bromodichloromethane				7.0	2.4E-04		8.2E-03	N/A	N/A	–	N/A

Table D-80. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Halogenated Alkenes											
Cis-1,2-dichloroethene			2.4E-03			2.5E-04	3.1E-05	2.5	Quast et al. (1983)*	–	1.3E-05
Trichloroethene			4.0E-03			2.5E-04	3.3E-05	0.7	Buben and O'Flaherty (1985)*	–	4.7E-05
Tetrachloroethene			3.0E-03			2.5E-04	3.2E-05	1.4	Buben and O'Flaherty (1985)*	–	2.3E-05
Ketones											
Acetone			0.3				3.4E-04	10	USEPA (1986)*	–	3.4E-05
2-Butanone			9.4E-02			5.0E-03	6.8E-04	N/A	N/A	–	N/A
Miscellaneous Volatile Compounds											
Carbon disulfide			0.1			2.5E-04	1.9E-04	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	0.7		6.8				9.1E-02	0.2	Vos et al. (1971)	0.2	0.5
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene			26,000				30	1	Hough et al. (1993)	–	30
Acenaphthylene			19				2.2E-02	1	Hough et al. (1993)	–	2.2E-02
Acenaphthene			85				9.9E-02	1	Hough et al. (1993)	–	9.9E-02
Fluorene			140				0.2	1	Hough et al. (1993)	–	0.2
Phenanthrene			630				0.7	1	Hough et al. (1993)	–	0.7
Anthracene			95				0.1	1	Hough et al. (1993)	–	0.1
2-Methylnaphthalene			2,800				3.3	1	Hough et al. (1993)	–	3.3
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene			250				0.3	1	Hough et al. (1993)	–	0.3
Pyrene			150				0.2	1	Hough et al. (1993)	–	0.2
Benz[a]anthracene			100				0.1	1	Hough et al. (1993)	–	0.1
Chrysene			100				0.1	1	Hough et al. (1993)	–	0.1
Benzo[b]fluoranthene			57				6.7E-02	1	Hough et al. (1993)	–	6.7E-02
Benzo[k]fluoranthene			60				7.0E-02	1	Hough et al. (1993)	–	7.0E-02
Benzo[a]pyrene			65				7.6E-02	1	Hough et al. (1993)	–	7.6E-02
Indeno[1,2,3-cd]pyrene			38				4.4E-02	1	Hough et al. (1993)	–	4.4E-02
Dibenz[a,h]anthracene			17				2.0E-02	1	Hough et al. (1993)	–	2.0E-02
Benzo[ghi]perylene			35				4.1E-02	1	Hough et al. (1993)	–	4.1E-02
Phenols											
Phenol			2.6				3.0E-03	6	Schafer et al. (1983)	–	5.1E-04
2-Methylphenol			1.1				1.3E-03	219	Hornshaw et al. (1986)*	–	5.9E-06
4-Methylphenol			2.2				2.6E-03	219	Hornshaw et al. (1986)*	–	1.2E-05
2,4-Dimethylphenol			1.0				1.2E-03	N/A	N/A	–	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate			5.1				6.0E-03	1.1	Peakall (1974)	–	5.4E-03
Di-*n* -butyl phthalate			0.2				2.0E-04	0.11	Peakall (1974)	–	1.8E-03
Miscellaneous Oxygenated Compounds											
Dibenzofuran			81				9.5E-02	N/A	N/A	–	N/A
Carbazole			19				2.2E-02	N/A	N/A	–	N/A

Table D-80. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Organonitrogen Compounds											
4-Chloroaniline			0.1				1.6E-04	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane		3.2E-02	1.3E-02				3.8E-03	0.02	Sauter and Steele (1972)	2.1E-03	0.2
β-Hexachlorocyclohexane	2.8E-02		9.7E-03				3.3E-03	0.02	Sauter and Steele (1972)	2.1E-03	0.2
δ-Hexachlorocyclohexane		3.6E-02	4.8E-03				4.2E-03	0.02	Sauter and Steele (1972)	2.1E-03	0.2
γ-Hexachlorocyclohexane	5.7E-03		4.2E-03				6.7E-04	0.02	Sauter and Steele (1972)	2.1E-03	3.4E-02
Aldrin	1.1E-02		3.5E-03				1.3E-03	0.77	Mendenhall et al. (1983)	5.3E-03	1.7E-03
α-Chlordane	2.1E-02		1.5E-02				2.4E-03	2.4	Stickel et al. (1983)	1.1E-03	1.0E-03
γ-Chlordane	1.5E-02		5.0E-02				1.8E-03	2.4	Stickel et al. (1983)	1.1E-03	7.5E-04
Chlordane isomers (sum)	6.0E-02		5.0E-02				7.1E-03	2.4	Stickel et al. (1983)	8.4E-03	2.9E-03
Dieldrin	0.4		3.6E-02				4.6E-02	0.077	Mendenhall et al. (1983)	0.6	0.6
α-Endosulfan		3.2E-02	8.7E-03				3.8E-03	50	Abiola (1992)	8.2E-05	7.6E-05
Endosulfan sulfate	1.1E-02		3.1E-02				1.3E-03	11.1	Abiola (1992)	4.1E-04	1.2E-04
Endrin	0.2		8.4E-03				2.1E-02	0.01	Fleming et al. (1982)	2.10	2.1
Endrin aldehyde	1.9E-02		3.5E-03				2.2E-03	0.01	Fleming et al. (1982)	0.5	0.2
Endrin ketone	2.3E-02		4.9E-02				2.7E-03	0.01	Fleming et al. (1982)	0.3	0.3
Heptachlor		3.2E-02	5.3E-03				3.8E-03	0.05	Wagstaff et al. (1980)	1.5E-04	7.6E-02
Heptachlor epoxide	3.2E-02		5.2E-02				3.8E-03	0.005	WHO (1984)	2.6	0.8
Methoxychlor		3.2E-02	4.0E-03				3.8E-03	2	Hudson et al. (1984)	1.4E-03	1.9E-03
4,4'-DDD	0.4		3.9E-03				4.3E-02	0.0028	Anderson et al. (1975)	0.2	15
4,4'-DDE	1.4		2.1E-02				0.2	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	4.8	4.3
4,4'-DDT	0.2		8.8E-02				2.1E-02	0.0028	Anderson et al. (1975)	8.4	7.4
DDT and metabolites (Sum)	1.9						0.2	0.0028	Anderson et al. (1975)	–	81
Aroclor 1221		0.5	1.6				5.7E-02	0.18	Dahlgren et al. (1982)	0.3	0.3
Aroclor 1242	1.2		19				0.2	0.41	McLane and Hughes (1980)	4.6	0.4
Aroclor 1248	8.4		0.1				1.0	0.18	Dahlgren et al. (1982)	5.5	5.5
Aroclor 1254		0.2	1.3				2.9E-02	0.18	Dahlgren et al. (1982)	0.1	0.2
Aroclor 1260	9.0		1.0				1.1	33.3	Call and Harrell (1974)	3.2E-02	3.2E-02
Aroclor 1268		0.2	0.2				2.8E-02	0.18	Dahlgren et al. (1982)	0.1	0.2
Aroclors 1254 and 1260	2.1						0.2	0.18	Dahlgren et al. (1982)	–	1.3
PCBs (sum)	13		21				0.3	0.18	Dahlgren et al. (1982)	9.1	1.5

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
Methylmercury in fish was assumed to be equal to the total mercury value
[a] Hazard quotients equal to or greater than one are outlined
* indicates that a mammalian TRV was used for screening due to lack of an avian one
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-81. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Belted Kingfisher (1999–2000)

Analyte	Fish Detected Value[a] (ng/kg dry)	Sediment Maximum Detected Value[a] (ng/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Avian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8	47	0.3	0.01	2.7E-03			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	5.6	18	0.7	0.001	6.7E-04			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.4	29	8.5E-02	0.01	8.5E-04			
1,2,3,4,7,8-Hexachlorodibenzofuran	21	79	2.5	0.1	0.3			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	1.9	2.8	0.2	0.05	1.1E-02			
1,2,3,6,7,8-Hexachlorodibenzofuran	7.8	19	0.9	0.1	9.3E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	6.4	5.9	0.8	0.01	7.6E-03			
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	7.4	3.8E-02	0.1	3.8E-03			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	1.2	5.6	0.1	0.1	1.5E-02			
1,2,3,7,8-Pentachlorodibenzofuran	27	68	3.2	0.1	0.3			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	6.4	4.1	0.7	1	0.7			
2,3,4,6,7,8-Hexachlorodibenzofuran	1.9	7.9	0.2	0.1	2.3E-02			
2,3,4,7,8-Pentachlorodibenzofuran	114	231	14	1	14			
2,3,7,8-Tetrachlorodibenzofuran	64	268	7.8	1	7.8			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	3.4	1.1	0.4	1	0.4			
Octachlorodibenzofuran	0.2	214	0.3	0.0001	2.8E-05			
Octachlorodibenzo-*p*-dioxin	2.6	39	0.3	0.0001	3.5E-05			
					23	14	3.7	1.7

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] TRV is for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined.
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-82. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposure for the Belted Kingfisher (1999–2000)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Halogenated Alkanes								
Chloromethane		7.5	5.0E-04	8.8E-03	N/A	N/A	–	N/A
Bromomethane		7.5	5.0E-04	8.8E-03	N/A	N/A	–	N/A
Chloroethane		7.5	5.0E-04	8.8E-03	N/A	N/A	–	N/A
Carbon tetrachloride		7.0	2.5E-04	8.2E-03	16	Alumot et al. (1976)*	–	5.1E-04
1,2-Dichloropropane		7.0	2.5E-04	8.2E-03	N/A	N/A	–	N/A
1,1,2-Trichloroethane		7.0	2.5E-04	8.2E-03	1,000	Lane et al. (1982)*	–	8.2E-06
Bromoform		7.0	2.5E-04	8.2E-03	N/A	N/A	–	N/A
1,1,2,2-Tetrachloroethane		7.0	2.5E-04	8.2E-03	N/A	N/A	–	N/A
Dibromochloromethane		7.0	2.5E-04	8.2E-03	N/A	N/A	–	N/A
Halogenated Alkenes								
Vinyl chloride		7.5	5.0E-04	8.8E-03	0.17	Feron et al. (1981)*	–	5.2E-02
1,1-Dichloroethene		7.0	2.5E-04	8.2E-03	2.5	Quast et al. (1983)*	–	3.3E-03
trans -1,2-dichloroethene		7.0	2.5E-04	8.2E-03	2.5	Quast et al. (1983)*	–	3.3E-03
cis -1,3-Dichloropropene		7.0	2.5E-04	8.2E-03	N/A	N/A	–	N/A
trans -1,3-Dichloropropene		7.0	2.5E-04	8.2E-03	N/A	N/A	–	N/A
Ketones								
2-Hexanone		15	2.5E-03	1.7E-02	N/A	N/A	–	N/A
4-Methyl-2-pentanone		15	2.5E-03	1.7E-02	N/A	N/A	–	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene		115		0.1	N/A	N/A	–	N/A
Substituted Phenols								
2-Chlorophenol		115		0.1	N/A	N/A	–	N/A
2,4-Dichlorophenol		600		0.7	N/A	N/A	–	N/A
4-Chloro-3-methylphenol		600		0.7	N/A	N/A	–	N/A
2,4,6-Trichlorophenol		600		0.7	N/A	N/A	–	N/A
2,4,5-Trichlorophenol		600		0.7	N/A	N/A	–	N/A
Pentachlorophenol		3,000		3.5	0.24	Schwetz et al. (1978)	–	15
2-Nitrophenol		600		0.7	N/A	N/A	–	N/A
4-Nitrophenol		3,000		3.5	N/A	N/A	–	N/A
2,4-Dinitrophenol		3,000		3.5	N/A	N/A	–	N/A
2-Methyl-4,6-dinitrophenol		3,000		3.5	N/A	N/A	–	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane		115		0.1	0.05	Tugarinova et al. (1960)*	–	2.7
Hexachlorobutadiene		115		0.1	0.2	Kociba et al. (1977)*	–	0.7
Hexachlorocyclopentadiene		600		0.7	N/A	N/A	–	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether		115		0.1	N/A	N/A	–	N/A
4-Chlorophenyl-phenyl ether		115		0.1	N/A	N/A	–	N/A
4-Bromophenyl-phenyl ether		115		0.1	N/A	N/A	–	N/A
bis[2-chloroethoxy]methane		115		0.1	N/A	N/A	–	N/A

Table D-82. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Phthalates								
Diethyl phthalate		115		0.1	4,580	Lamb et al. (1987)*	–	2.9E-05
Dimethyl phthalate		115		0.1	N/A	N/A	–	N/A
Butylbenzyl phthalate		115		0.1	N/A	N/A	–	N/A
Di-*n* -octyl phthalate		115		0.1	N/A	N/A	–	N/A
Miscellaneous Oxygenated Compounds								
Isophorone		115		0.1	N/A	N/A	–	N/A
Benzyl alcohol		600		0.7	N/A	N/A	–	N/A
Organonitrogen Compounds								
Nitrobenzene		115		0.1	N/A	N/A	–	N/A
N -nitroso-di-*n* -propylamine		115		0.1	N/A	N/A	–	N/A
2-Nitroaniline		235		0.3	N/A	N/A	–	N/A
3-Nitroaniline		3,000		3.5	N/A	N/A	–	N/A
4-Nitroaniline		3,000		3.5	N/A	N/A	–	N/A
2,6-Dinitrotoluene		600		0.7	N/A	N/A	–	N/A
2,4-Dinitrotoluene		600		0.7	N/A	N/A	–	N/A
N-nitrosodiphenylamine		115		0.1	N/A	N/A	–	N/A
3,3'-Dichlorobenzidine		115		0.1	N/A	N/A	–	N/A
N-nitroso dimethylamine		600		0.7	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls								
β-Endosulfan	0.7	5.5E-04		0.1	50	Abiola (1992)	1.6E-03	1.6E-03
Toxaphene	4.1	5.7E-02		0.5	8	Kennedy et al. (1973)*	N/A	6.0E-02
Aroclor 1016	0.2	0.8		2.9E-02	0.18	Dahlgren et al. (1982)	0.2	0.2
Aroclor 1232	0.2	0.8		2.9E-02	0.18	Dahlgren et al. (1982)	0.1	0.2

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] Hazard quotients equal to or greater than one are outlined
* indicates that a mammalian TRV was used for screening due to lack of an avian one
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-83. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the Great Blue Heron (1999–2000)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum	369		14,500				30	110	Carriere et al. (1986)	0.2	0.3
Antimony		0.1	5.4				1.1E-02	1,400	Damron and Wilson (1975)	7.57E-06	7.8E-06
Arsenic	6.8		47				0.4	2.46	USFWS (1964)	5.4E-02	0.1
Barium	23		2,070				3.0	20.8	Johnson et al. (1960)	1.0	0.1
Beryllium	0.1		0.8				7.4E-03	0.66	Schroeder and Mitchner (1975)*	N/A	1.1E-02
Cadmium	3.1		15				0.2	1.45	White and Finley (1978)	3.6E-02	0.1
Calcium	319,435		409,000				15,070	N/A	N/A	N/A	N/A
Chromium	60		4,180		3.9E-03		6.6	1	Haseltine et al. (nd)	4.4	6.6
Cobalt	3.5		170				0.3	5	Nation et al. (1983)*	N/A	6.3E-02
Copper	72		366				3.7	47	Mehring et al. (1960)	2.9E-02	7.8E-02
Iron	721		50,800		0.6		80	N/A	N/A	N/A	N/A
Lead	6.4		750		3.1E-03		1.0	1.13	Edens et al. (1976)	2.0	0.9
Magnesium	9,326		34,700				461	N/A	N/A	N/A	N/A
Manganese	140		1190		0.6		7.6	977	Laskey and Edens (1985)	2.8E-03	7.7E-03
Methylmercury	8.7		10		1.4E-05		0.4	0.0064	Heinz (1979)	100	64
Mercury	8.7		78		1.0E-04		0.5	0.45	Hill and Schaffner (1976)	12	1.0
Nickel	60		1,670		4.7E-03		4.3	77.4	Cain and Pafford (1981)	2.3E-02	5.5E-02
Potassium	79,638		3,480				3,667	N/A	N/A	N/A	N/A
Selenium	12		5.9				0.5	0.4	Heinz et al. (1989)	0.3	1.4
Silver	0.2		6.1				1.5E-02	18.1	Walker (1971)*	N/A	N/A
Sodium	24,907		11,900				1,157	N/A	N/A	N/A	N/A
Thallium	8.1E-02		2.9				6.4E-03	0.237	Hudson et al. (1984)	1.3E-02	2.7E-02
Vanadium	6.8		319				0.6	11.4	White and Dieter (1978)	2.3E-02	5.3E-02
Zinc	1,272		421				58.92	14.5	Stahl et al. (1990)	0.2	4.1
Cyanide	69		6.4				3.2	68.7	Tewe and Maner (1981)*	N/A	4.7E-02
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene			42		6.3E-03		3.9E-02	N/A	N/A	–	N/A
Toluene			8.3		1.6E-04		7.6E-03	26	Nawrot and Staples (1979)*	–	2.9E-04
Ethylbenzene			71			2.5E-04	6.5E-02	N/A	N/A	–	N/A
Styrene			4.8			2.5E-04	4.4E-03	N/A	N/A	–	N/A
Xylene (m,p)			100				0.1	2.1	Marks et al. (1982)*	–	4.4E-02
Xylene (o)			23				2.1E-02	2.1	Marks et al. (1982)*	–	1.0E-02
Xylene isomers (total)			330		3.3E-04		0.3	2.1	Marks et al. (1982)*	–	0.1
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene			1,000		1.2E-02		0.9	N/A	N/A	–	N/A
1,2-Dichlorobenzene			48		3.2E-03		4.4E-02	6	Jori et al. (1982)	–	7.4E-03
1,3-Dichlorobenzene			37				3.4E-02	6	Jori et al. (1982)	–	5.7E-03
1,4-Dichlorobenzene			170		3.4E-03		0.2	6	Jori et al. (1982)	–	2.6E-02
Dichlorobenzenes (sum)			239		3.4E-03		0.2	6	Jori et al. (1982)	–	3.7E-02
1,2,4-Trichlorobenzene			35				3.2E-02	8	Cote et al. (1988)*	–	4.0E-03
Trichlorobenzenes (sum)			35				3.2E-02	8	Cote et al. (1988)*	–	4.0E-03
Halogenated Alkanes											
Methylene chloride			8			2.2E-04	7.4E-03	5.85	NCA (1982)*	–	1.3E-03
Chloroform					8.5E-04		4.1E-05	15	Palmer et al. (1979)*	–	2.7E-06
1,1-Dichloroethane			1.2			2.5E-04	1.1E-03	17.2	Almut et al. (1976)	–	6.5E-05
1,2-Dichloroethane			0.1			2.5E-04	1.4E-04	17.2	Almut et al. (1976)	–	8.1E-06
1,1,1-Trichloroethane			2.7E-03			2.5E-04	1.4E-05	1,000	Lane et al. (1982)*	–	1.4E-08
Bromodichloromethane				7	2.4E-04		6.5E-03	N/A	N/A	–	N/A

Table D-83. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Halogenated Alkenes											
Cis-1,2-dichloroethene			2.4E-03			2.5E-04	1.4E-05	2.5	Quast et al. (1983)*	–	5.7E-06
Trichloroethene			4.0E-03			2.5E-04	1.6E-05	0.7	Buben and O'Flaherty (1985)*	–	2.2E-05
Tetrachloroethene			3.0E-03			2.5E-04	1.5E-05	1.4	Buben and O'Flaherty (1985)*	–	1.1E-05
Ketones											
Acetone			0.3				2.7E-04	10	USEPA (1986)*	–	2.7E-05
2-Butanone			9.4E-02			5.0E-03	3.3E-04	N/A	N/A	–	N/A
Miscellaneous Volatile Compounds											
Carbon disulfide			0.1			2.5E-04	1.4E-04	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	0.7		6.8				3.9E-02	0.2	Vos et al. (1971)	8.4E-02	0.2
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene			26,000				24	1	Hough et al. (1993)	–	24
Acenaphthylene			19				1.7E-02	1	Hough et al. (1993)	–	1.7E-02
Acenaphthene			85				7.8E-02	1	Hough et al. (1993)	–	7.8E-02
Fluorene			140				0.1	1	Hough et al. (1993)	–	0.1
Phenanthrene			630				0.6	1	Hough et al. (1993)	–	0.6
Anthracene			95				0.1	1	Hough et al. (1993)	–	8.7E-02
2-Methylnaphthalene			2,800				2.6	1	Hough et al. (1993)	–	2.6
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene			250				0.2	1	Hough et al. (1993)	–	0.2
Pyrene			150				0.1	1	Hough et al. (1993)	–	0.1
Benz[a]anthracene			100				0.1	1	Hough et al. (1993)	–	9.2E-02
Chrysene			100				0.1	1	Hough et al. (1993)	–	9.2E-02
Benzo[b]fluoranthene			57				5.2E-02	1	Hough et al. (1993)	–	5.2E-02
Benzo[k]fluoranthene			60				5.5E-02	1	Hough et al. (1993)	–	5.5E-02
Benzo[a]pyrene			65				6.0E-02	1	Hough et al. (1993)	–	6.0E-02
Indeno[1,2,3-cd]pyrene			38				3.5E-02	1	Hough et al. (1993)	–	3.5E-02
Dibenz[a,h]anthracene			17				1.6E-02	1	Hough et al. (1993)	–	1.6E-02
Benzo[ghi]perylene			35				3.2E-02	1	Hough et al. (1993)	–	3.2E-02
Phenols											
Phenol			2.6				2.4E-03	6	Schafer et al. (1983)	–	4.0E-04
2-Methylphenol			1.1				1.0E-03	219	Hornshaw et al. (1986)*	–	4.6E-06
4-Methylphenol			2.2				2.0E-03	219	Hornshaw et al. (1986)*	–	9.2E-06
2,4-Dimethylphenol			0.99				9.1E-04	N/A	N/A	–	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate			5.1				4.7E-03	1.1	Peakall (1974)	–	4.3E-03
Di-*n*-butyl phthalate			0.2				1.6E-04	0.11	Peakall (1974)	–	1.4E-03
Miscellaneous Oxygenated Compounds											
Dibenzofuran			81				7.5E-02	N/A	N/A	–	N/A
Carbazole			19				1.7E-02	N/A	N/A	–	N/A

Table D-83. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Organonitrogen Compounds											
4-Chloroaniline			0.1				1.3E-04	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane		3.2E-02	1.3E-02				1.5E-03	0.02	Sauter and Steele (1972)	7.8E-04	7.5E-02
β-Hexachlorocyclohexane	2.8E-02		9.7E-03				1.3E-03	0.02	Sauter and Steele (1972)	7.7E-04	6.5E-02
δ-Hexachlorocyclohexane		3.6E-02	4.8E-03				1.6E-03	0.02	Sauter and Steele (1972)	7.7E-04	8.2E-02
γ-Hexachlorocyclohexane	5.7E-03		4.2E-03				2.7E-04	0.02	Sauter and Steele (1972)	7.7E-04	1.3E-02
Aldrin	1.1E-02		3.5E-03				5.2E-04	0.77	Mendenhall et al. (1983)	2.1E-03	6.7E-04
α-Chlordane	2.1E-02		1.5E-02				9.7E-04	2.4	Stickel et al. (1983)	4.1E-04	4.0E-04
γ-Chlordane	1.5E-02		5.0E-02				7.3E-04	2.4	Stickel et al. (1983)	4.2E-04	3.1E-04
Chlordane isomers (sum)	6.0E-02		5.0E-02				2.8E-03	2.4	Stickel et al. (1983)	3.2E-03	1.2E-03
Dieldrin	0.4		3.6E-02				1.8E-02	0.077	Mendenhall et al. (1983)	0.2	2.3E-01
α-Endosulfan		3.2E-02	8.7E-03				1.5E-03	50	Abiola (1992)	3.1E-05	3.0E-05
Endosulfan sulfate	1.1E-02		3.1E-02				5.3E-04	11.1	Abiola (1992)	1.6E-04	4.8E-05
Endrin	0.2		8.4E-03				8.3E-03	0.01	Fleming et al. (1982)	0.8	0.8
Endrin aldehyde	1.9E-02		3.5E-03				8.8E-04	0.01	Fleming et al. (1982)	0.2	8.8E-02
Endrin ketone	2.3E-02		4.9E-02				1.1E-03	0.01	Fleming et al. (1982)	0.1	0.1
Heptachlor		3.2E-02	5.3E-03				1.5E-03	0.05	Wagstaff et al. (1980)	5.80E-05	3.0E-02
Heptachlor epoxide	3.2E-02		5.2E-02				1.5E-03	0.005	WHO (1984)	1.0	0.3
Methoxychlor		3.2E-02	4.0E-03				1.5E-03	2	Hudson et al. (1984)	5.4E-04	7.5E-04
4,4'-DDD	0.4		3.9E-03				1.7E-02	0.0028	Anderson et al. (1975)	5.7E-02	6.0
4,4'-DDE	1.4		2.1E-02				0.1	0.038	Mendenhall et al. (1983), as cited in WHO (1989	1.8	1.7
4,4'-DDT	0.2		8.8E-02				8.2E-03	0.0028	Anderson et al. (1975)	3.2	2.9
DDT and metabolites (Sum)	1.9						0.1	0.0028	Anderson et al. (1975)	–	32
Aroclor 1221		0.5	1.6				2.3E-02	0.18	Dahlgren et al. (1982)	0.1	0.1
Aroclor 1242	1.2		19				0.1	0.41	McLane and Hughes (1980)	1.8	0.2
Aroclor 1248	8.4		0.1				0.4	0.18	Dahlgren et al. (1982)	2.1	2.2
Aroclor 1254		0.2	1.3				1.2E-02	0.18	Dahlgren et al. (1982)	5.9E-02	6.7E-02
Aroclor 1260	9.0		1.0				0.4	33.3	Call and Harrell (1974)	1.2E-02	1.2E-02
Aroclor 1268		0.2	0.2				1.1E-02	0.18	Dahlgren et al. (1982)	5.5E-02	6.1E-02
Aroclors 1254 and 1260	2.1						0.1	0.18	Dahlgren et al. (1982)	–	0.5
PCBs (sum)	13		21				0.6	0.18	Dahlgren et al. (1982)	3.4	3.5

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
Methylmercury in fish was assumed to be equal to the total mercury value.
[a] Hazard quotients equal to or greater than one are outlined.
* indicates that a mammalian TRV was used for screening due to lack of an avian one.
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-84. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Great Blue Heron (1999–2000)

Analyte	Fish Detected Value[a] (ng/kg dry)	Sediment Maximum Detected Value[a] (ng/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Avian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8	47	0.1	0.01	1.3E-03			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p* -dioxin	5.6	18	0.3	0.001	2.7E-04			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.4	29	4.7E-02	0.01	4.7E-04			
1,2,3,4,7,8-Hexachlorodibenzofuran	21	79	1.0	0.1	0.1			
1,2,3,4,7,8-Hexachlorodibenzo-*p* -dioxin	1.9	2.8	8.9E-02	0.05	4.4E-03			
1,2,3,6,7,8-Hexachlorodibenzofuran	7.8	19	0.4	0.1	3.8E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p* -dioxin	6.4	5.9	0.3	0.01	3.0E-03			
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	7.4	1.8E-02	0.1	1.8E-03			
1,2,3,7,8,9-Hexachlorodibenzo-*p* -dioxin	1.2	5.6	6.0E-02	0.1	6.0E-03			
1,2,3,7,8-Pentachlorodibenzofuran	27	68	1.3	0.1	0.1			
1,2,3,7,8-Pentachlorodibenzo-*p* -dioxin	6.4	4.1	0.3	1	0.3			
2,3,4,6,7,8-Hexachlorodibenzofuran	1.9	7.9	9.5E-02	0.1	9.5E-03			
2,3,4,7,8-Pentachlorodibenzofuran	114	231	5.5	1	5.5			
2,3,7,8-Tetrachlorodibenzofuran	64	268	3.2	1	3.2			
2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	3.4	1.1	0.2	1	0.2			
Octachlorodibenzofuran	0.2	214	0.2	0.0001	2.1E-05			
Octachlorodibenzo-*p* -dioxin	2.6	39	4.7E-02	0.0001	4.7E-06			
					9.4	14	1.5	0.7

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans.
[b] TRV is for 2,3,7,8-TCDD (Nosek et al., 1992).
[c] Hazard quotients equal to or greater than one are outlined.
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-85. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposure for the Great Blue Heron (1999–200

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Halogenated Alkanes								
Chloromethane		7.5	5.0E-04	6.9E-03	N/A	N/A	–	N/A
Bromomethane		7.5	5.0E-04	6.9E-03	N/A	N/A	–	N/A
Chloroethane		7.5	5.0E-04	6.9E-03	N/A	N/A	–	N/A
Carbon tetrachloride		7.0	2.5E-04	6.5E-03	16	Alumot et al. (1976)*	–	4.0E-04
1,2-Dichloropropane		7.0	2.5E-04	6.5E-03	N/A	N/A	–	N/A
1,1,2-Trichloroethane		7.0	2.5E-04	6.5E-03	1,000	Lane et al. (1982)*	–	6.5E-06
Bromoform		7.0	2.5E-04	6.5E-03	N/A	N/A	–	N/A
1,1,2,2-Tetrachloroethane		7.0	2.5E-04	6.5E-03	N/A	N/A	–	N/A
Dibromochloromethane		7.0	2.5E-04	6.5E-03	N/A	N/A	–	N/A
Halogenated Alkenes								
Vinyl chloride		7.5	5.0E-04	6.9E-03	0.17	Feron et al. (1981)*	–	4.1E-02
1,1-Dichloroethene		7.0	2.5E-04	6.5E-03	2.5	Quast et al. (1983)*	–	2.6E-03
trans-1,2-dichloroethene		7.0	2.5E-04	6.5E-03	2.5	Quast et al. (1983)*	–	2.6E-03
cis-1,3-Dichloropropene		7.0	2.5E-04	6.5E-03	N/A	N/A	–	N/A
trans-1,3-Dichloropropene		7.0	2.5E-04	6.5E-03	N/A	N/A	–	N/A
Ketones								
2-Hexanone		15	2.5E-03	1.3E-02	N/A	N/A	–	N/A
4-Methyl-2-pentanone		15	2.5E-03	1.3E-02	N/A	N/A	–	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene		115		0.1	N/A	N/A	–	N/A
Substituted Phenols								
2-Chlorophenol		115		0.1	N/A	N/A	–	N/A
2,4-Dichlorophenol		600		0.6	N/A	N/A	–	N/A
4-Chloro-3-methylphenol		600		0.6	N/A	N/A	–	N/A
2,4,6-Trichlorophenol		600		0.6	N/A	N/A	–	N/A
2,4,5-Trichlorophenol		600		0.6	N/A	N/A	–	N/A
Pentachlorophenol		3,000		2.8	0.24	Schwetz et al. (1978)	–	12
2-Nitrophenol		600		0.6	N/A	N/A	–	N/A
4-Nitrophenol		3,000		2.8	N/A	N/A	–	N/A
2,4-Dinitrophenol		3,000		2.8	N/A	N/A	–	N/A
2-Methyl-4,6-dinitrophenol		3,000		2.8	N/A	N/A	–	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane		115		0.1	0.05	Tugarinova et al. (1960)*	–	2.1
Hexachlorobutadiene		115		0.1	0.2	Kociba et al. (1977)*	–	0.5
Hexachlorocyclopentadiene		600		0.6	N/A	N/A	–	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether		115		0.1	N/A	N/A	–	N/A
4-Chlorophenyl-phenyl ether		115		0.1	N/A	N/A	–	N/A
4-Bromophenyl-phenyl ether		115		0.1	N/A	N/A	–	N/A
bis[2-chloroethoxy]methane		115		0.1	N/A	N/A	–	N/A
Phthalates								
Diethyl phthalate		115		0.1	4580	Lamb et al. (1987)*	–	2.3E-05
Dimethyl phthalate		115		0.1	N/A	N/A	–	N/A
Butylbenzyl phthalate		115		0.1	N/A	N/A	–	N/A
Di-*n*-octyl phthalate		115		0.1	N/A	N/A	–	N/A

Table D-85. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Miscellaneous Oxygenated Compounds								
Isophorone		115		0.1	N/A	N/A	–	N/A
Benzyl alcohol		600		0.6	N/A	N/A	–	N/A
Organonitrogen Compounds								
Nitrobenzene		115		0.1	N/A	N/A	–	N/A
N-nitroso-di-*n*-propylamine		115		0.1	N/A	N/A	–	N/A
2-Nitroaniline		235		0.2	N/A	N/A	–	N/A
3-Nitroaniline		3,000		2.8	N/A	N/A	–	N/A
4-Nitroaniline		3,000		2.8	N/A	N/A	–	N/A
2,6-Dinitrotoluene		600		0.6	N/A	N/A	–	N/A
2,4-Dinitrotoluene		600		0.6	N/A	N/A	–	N/A
N-nitrosodiphenylamine		115		0.1	N/A	N/A	–	N/A
3,3'-Dichlorobenzidine		115		0.1	N/A	N/A	–	N/A
N-nitroso dimethylamine		600		0.6	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls								
β-Endosulfan	0.7	5.5E-04		3.2E-02	50	Abiola (1992)	6.2E-04	6.5E-04
Toxaphene	4.1	5.7E-02		0.2	8	Kennedy et al. (1973)*	N/A	2.4E-02
Aroclor 1016	0.2	0.8		1.2E-02	0.18	Dahlgren et al. (1982)	6.2E-02	6.4E-02
Aroclor 1232	0.2	0.8		1.2E-02	0.18	Dahlgren et al. (1982)	5.8E-02	6.4E-02

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] Hazard quotients equal to or greater than one are outlined
* indicates that a mammalian TRV was used for screening due to lack of an avian one
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-86. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the Osprey (1999–2000)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum	369		14,500				20	110	Carriere et al. (1986)	4.5E-02	0.2
Antimony		0.1	5.44				7.0E-03	1,400	Damron and Wilson (1975)	8.6E-07	5.0E-06
Arsenic	6.8		47.3				0.4	2.46	USFWS (1964)	3.5E-02	0.2
Barium	23		2,070				1.2	20.8	Johnson et al. (1960)	1.6E-02	5.9E-02
Beryllium	0.1		0.8				7.9E-03	0.66	Schroeder and Mitchner (1975)*	N/A	1.2E-02
Cadmium	3.1		15				0.2	1.45	White and Finley (1978)	2.4E-02	0.1
Calcium	319,435		409,000				17,249	N/A	N/A	N/A	N/A
Chromium	60		4,180		3.9E-03		3.3	1	Haseltine et al. (nd)	0.7	3.3
Cobalt	3.5		170				0.2	5	Nation et al. (1983)*	N/A	3.7E-02
Copper	72		366				3.9	47	Mehring et al. (1960)	1.9E-02	8.3E-02
Iron	721		50,800		0.6		39	N/A	N/A	N/A	N/A
Lead	6.4		750		3.1E-03		0.3	1.13	Edens et al. (1976)	4.5E-02	0.3
Magnesium	9,326		34,700				504	N/A	N/A	N/A	N/A
Manganese	140		1,190		0.6		7.6	977	Laskey and Edens (1985)	1.5E-03	7.8E-03
Methylmercury	8.7		10		1.4E-05		0.5	0.0064	Heinz (1979)	109	73
Mercury	8.7		78		1.0E-04		0.5	0.45	Hill and Schaffner (1976)	13	1.0
Nickel	60		1,670		4.7E-03		3.2	77.4	Cain and Pafford (1981)	8.7E-03	4.2E-02
Potassium	79,638		3,480				4,300	N/A	N/A	N/A	N/A
Selenium	12		5.9				0.6	0.4	Heinz et al. (1989)	0.3	1.6
Silver	0.2		6.1				1.1E-02	18.1	Walker (1971)*	N/A	N/A
Sodium	24,907		11,900				1,345	N/A	N/A	N/A	N/A
Thallium	8.1E-02		2.9				4.4E-03	0.237	Hudson et al. (1984)	4.1E-03	1.8E-02
Vanadium	6.8		319				0.4	11.4	White and Dieter (1978)	6.7E-03	3.2E-02
Zinc	1,272		421				69	14.5	Stahl et al. (1990)	0.2	4.7
Cyanide	69		6.4				3.7	68.7	Tewe and Maner (1981)*	N/A	5.5E-02
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene			42		6.3E-03		3.5E-04	N/A	N/A	–	N/A
Toluene			8.3		1.6E-04		8.8E-06	26	Nawrot and Staples (1979)*	–	3.4E-07
Ethylbenzene			71			2.5E-04	1.4E-05	N/A	N/A	–	N/A
Styrene			4.8			2.5E-04	1.4E-05	N/A	N/A	–	N/A
Xylene isomers (total)			330		3.3E-04		1.8E-05	2.1	Marks et al. (1982)*	–	8.6E-06
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene			1,000		1.2E-02		6.6E-04	N/A	N/A	–	N/A
1,2-Dichlorobenzene			48		3.2E-03		1.8E-04	6	Jori et al. (1982)	–	2.9E-05
1,4-Dichlorobenzene			170		3.4E-03		1.9E-04	6	Jori et al. (1982)	–	3.1E-05
Dichlorobenzenes (sum)			239		3.4E-03		1.9E-04	6	Jori et al. (1982)	–	3.1E-05
Halogenated Alkanes											
Methylene chloride			8			2.2E-04	1.2E-05	5.85	NCA (1982)*	–	2.1E-06
Chloroform					8.5E-04		4.7E-05	15	Palmer et al. (1979)*	–	3.1E-06
1,1-Dichloroethane			1.2			2.5E-04	1.4E-05	17.2	Almut et al. (1976)	–	8.0E-07
1,2-Dichloroethane			0.1			2.5E-04	1.4E-05	17.2	Almut et al. (1976)	–	8.0E-07
1,1,1-Trichloroethane			2.7E-03			2.5E-04	1.4E-05	1,000	Lane et al. (1982)*	–	1.4E-08
Bromodichloromethane				7	2.4E-04		1.3E-05	N/A	N/A	–	N/A
Halogenated Alkenes											
Cis-1,2-dichloroethene			2.4E-03			2.5E-04	1.4E-05	2.5	Quast et al. (1983)*	–	5.5E-06
Trichloroethene			4.0E-03			2.5E-04	1.4E-05	0.7	Buben and O'Flaherty (1985)*	–	2.0E-05
Tetrachloroethene			3.0E-03			2.5E-04	1.4E-05	1.4	Buben and O'Flaherty (1985)*	–	9.8E-06

Table D-86. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Ketones											
2-Butanone			9.4E-02			5.0E-03	2.8E-04	N/A	N/A	–	N/A
Miscellaneous Volatile Compounds											
Carbon disulfide			0.1			2.5E-04	1.4E-05	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	0.7		6.8				3.8E-02	0.2	Vos et al. (1971)	8.1E-02	0.2
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane		3.2E-02	1.3E-02				1.8E-03	0.02	Sauter and Steele (1972)	8.4E-04	8.8E-02
β-Hexachlorocyclohexane	2.8E-02		9.7E-03				1.5E-03	0.02	Sauter and Steele (1972)	8.4E-04	7.6E-02
δ-Hexachlorocyclohexane		3.6E-02	4.8E-03				1.9E-03	0.02	Sauter and Steele (1972)	8.4E-04	9.6E-02
γ-Hexachlorocyclohexane	5.7E-03		4.2E-03				3.1E-04	0.02	Sauter and Steele (1972)	8.4E-04	1.5E-02
Aldrin	1.1E-02		3.5E-03				6.0E-04	0.77	Mendenhall et al. (1983)	2.2E-03	7.8E-04
α-Chlordane	2.1E-02		1.5E-02				1.1E-03	2.4	Stickel et al. (1983)	4.4E-04	1.5E-03
γ-Chlordane	1.5E-02		5.0E-02				8.1E-04	2.4	Stickel et al. (1983)	4.4E-04	3.4E-04
Chlordane isomers (sum)	6.0E-02		5.0E-02				3.2E-03	2.4	Stickel et al. (1983)	3.4E-03	1.4E-03
Dieldrin	0.4		3.6E-02				2.1E-02	0.077	Mendenhall et al. (1983)	0.2	2.7E-01
α-Endosulfan		3.2E-02	8.7E-03				1.8E-03	50	Abiola (1992)	3.4E-05	3.5E-05
Endosulfan sulfate	1.1E-02		3.1E-02				5.9E-04	11.1	Abiola (1992)	1.7E-04	5.3E-05
Endrin	0.2		8.4E-03				9.7E-03	0.01	Fleming et al. (1982)	0.9	1.0
Endrin aldehyde	1.9E-02		3.5E-03				1.0E-03	0.01	Fleming et al. (1982)	0.2	0.1
Endrin ketone	2.3E-02		4.9E-02				1.2E-03	0.01	Fleming et al. (1982)	0.1	0.1
Heptachlor		3.2E-02	5.3E-03				1.8E-03	0.05	Wagstaff et al. (1980)	6.3E-05	3.5E-02
Heptachlor epoxide	3.2E-02		5.2E-02				1.7E-03	0.005	WHO (1984)	1.1	0.3
Methoxychlor		3.2E-02	4.0E-03				1.8E-03	2	Hudson et al. (1984)	5.8E-04	8.8E-04
4,4'-DDD	0.4		3.9E-03				2.0E-02	0.0028	Anderson et al. (1975)	6.2E-02	7.1
4,4'-DDE	1.4		2.1E-02				7.6E-02	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	2.0	2.0
4,4'-DDT	0.2		8.8E-02				9.5E-03	0.0028	Anderson et al. (1975)	3.5	3.4
DDT and metabolites (Sum)	1.9		8.8E-02				0.1	0.0028	Anderson et al. (1975)	–	38
Aroclor 1221		0.5	1.6				2.6E-02	0.18	Dahlgren et al. (1982)	0.1	0.1
Aroclor 1242	1.2		19				6.5E-02	0.41	McLane and Hughes (1980)	1.9	0.2
Aroclor 1248	8.4		0.1				0.5	0.18	Dahlgren et al. (1982)	2.2	2.5
Aroclor 1254		0.2	1.3				1.3E-02	0.18	Dahlgren et al. (1982)	5.9E-02	7.1E-02
Aroclor 1260	9.0		1.0				0.5	33.3	Call and Harrell (1974)	1.3E-02	1.5E-02
Aroclor 1268		0.2	0.2				1.3E-02	0.18	Dahlgren et al. (1982)	5.9E-02	7.1E-02
Aroclors 1254 and 1260	2.1						0.1	0.18	Dahlgren et al. (1982)	–	0.6
PCBs (sum)	13		21				0.7	0.18	Dahlgren et al. (1982)	3.7	4.0

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
Methylmercury in fish was assumed to be equal to the total mercury value.
[a] Hazard quotients equal to or greater than one are outlined.
* indicates that a mammalian TRV was used for screening due to lack of an avian one.
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-87. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the Osprey (1999–2000)

Analyte	Fish Detected Value[a] (ng/kg dry)	Sediment Maximum Detected Value[a] (ng/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Avian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8	47	9.7E-02	0.01	9.7E-04			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	5.6	18	0.3	0.001	3.0E-04			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.4	29	2.3E-02	0.01	2.3E-04			
1,2,3,4,7,8-Hexachlorodibenzofuran	21	79	1.1	0.1	0.1			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	1.9	2.8	0.1	0.05	5.0E-03			
1,2,3,6,7,8-Hexachlorodibenzofuran	7.8	19	0.4	0.1	4.2E-02			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	6.4	5.9	0.3	0.01	3.5E-03			
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	7.4	1.3E-02	0.1	1.3E-03			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	1.2	5.6	6.5E-02	0.1	6.5E-03			
1,2,3,7,8-Pentachlorodibenzofuran	27	68	1.5	0.1	0.1			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	6.4	4.1	0.3	1	0.3			
2,3,4,6,7,8-Hexachlorodibenzofuran	1.9	7.9	0.1	0.1	1.0E-02			
2,3,4,7,8-Pentachlorodibenzofuran	114	231	6.2	1	6.2			
2,3,7,8-Tetrachlorodibenzofuran	64	268	3.5	1	3.5			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	3.4	1.1	0.2	1	0.2			
Octachlorodibenzofuran	0.2	214	1.3E-02	0.0001	1.3E-06			
Octachlorodibenzo-*p*-dioxin	2.6	39	0.1	0.0001	1.4E-05			
					10	14	1.5	0.7

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] TRV is for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-88. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposure for the Osprey (1999–2000)

	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Halogenated Alkanes								
Chloromethane		7.5	5.0E-04	2.8E-05	N/A	N/A	–	N/A
Bromomethane		7.5	5.0E-04	2.8E-05	N/A	N/A	–	N/A
Chloroethane		7.5	5.0E-04	2.8E-05	N/A	N/A	–	N/A
Carbon tetrachloride		7.0	2.5E-04	1.4E-05	16	Alumot et al. (1976)*	–	8.6E-07
1,2-Dichloropropane		7.0	2.5E-04	1.4E-05	N/A	N/A	–	N/A
1,1,2-Trichloroethane		7.0	2.5E-04	1.4E-05	1,000	Lane et al. (1982)*	–	1.4E-08
Bromoform		7.0	2.5E-04	1.4E-05	N/A	N/A	–	N/A
1,1,2,2-Tetrachloroethane		7.0	2.5E-04	1.4E-05	N/A	N/A	–	N/A
Dibromochloromethane		7.0	2.5E-04	1.4E-05	N/A	N/A	–	N/A
Halogenated Alkenes								
Vinyl chloride		7.5	5.0E-04	2.8E-05	0.17	Feron et al. (1981)*	–	1.6E-04
1,1-Dichloroethene		7	2.5E-04	1.4E-05	2.5	Quast et al. (1983)*	–	5.5E-06
trans -1,2-dichloroethene		7	2.5E-04	1.4E-05	2.5	Quast et al. (1983)*	–	5.5E-06
cis -1,3-Dichloropropene		7	2.5E-04	1.4E-05	N/A	N/A	–	N/A
trans -1,3-Dichloropropene		7	2.5E-04	1.4E-05	N/A	N/A	–	N/A
Ketones								
2-Hexanone		15	2.5E-03	1.4E-04	N/A	N/A	–	N/A
4-Methyl-2-pentanone		15	2.5E-03	1.4E-04	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls								
β-Endosulfan	0.7	5.5E-04		3.8E-02	50	Abiola (1992)	6.8E-04	7.6E-04
Toxaphene	4.1	5.7E-02		0.2	8	Kennedy et al. (1973)*	N/A	2.8E-02
Aroclor 1016	0.2	0.8		1.3E-02	0.18	Dahlgren et al. (1982)	6.3E-02	7.1E-02
Aroclor 1232	0.2	0.8		1.3E-02	0.18	Dahlgren et al. (1982)	5.9E-02	7.1E-02

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] Hazard quotients equal to or greater than one are outlined
* indicates that a mammalian TRV was used for screening due to lack of an avian one
– indicates that a compound was not included in the Honeywell table
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-89. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Mallard (1999–2000)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFa	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Total Metals and Cyanide											
Aluminum	14,500		0.588	8,526			522	110	Carriere et al. (1986)	0.2	4.7
Antimony	5.4		0.675	3.7			0.2	1,400	Damron and Wilson (1975)	1.4E-04	1.6E-04
Arsenic	47		0.675	32			1.9	2.46	USFWS (1964)	0.4	0.8
Barium	2,070		9.24	19,127			1,113	20.8	Johnson et al. (1960)	0.7	54
Beryllium	0.8		0.675	0.5			3.2E-02	0.66	Schroeder and Mitchner (1975)*	N/A	4.9E-02
Cadmium	15		9.24	138			8	1.45	White and Finley (1978)	0.3	5.5
Calcium	409,000		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Chromium	4,180		0.588	2,458	3.9E-03		151	1	Haseltine et al. (nd)	9.1	151
Cobalt	170		3.15	536			31	5	Nation et al. (1983)*	N/A	6.3
Copper	366		3.872	1,417			83	47	Mehring et al. (1960)	2.2E-02	1.8
Iron	50,800		3.15	160,020	0.6		9,378	N/A	N/A	N/A	N/A
Lead	750		0.946	710	3.1E-03		42.6	1.13	Edens et al. (1976)	10	38
Magnesium	34,700		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Manganese	1,190		0.946	1,126	0.6		68	977	Laskey and Edens (1985)	1.9E-02	6.9E-02
Methylmercury	10		b	2.5	1.4E-05		0.2	0.0064	Heinz (1979)	31	26
Mercury	78		b	53	1.0E-04		3	0.45	Hill and Schaffner (1976)	6.2	7.2
Nickel	1,670		3.15	5,261	4.7E-03		308	77.4	Cain and Pafford (1981)	0.1	4.0
Potassium	3,480		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Selenium	5.9		0.588	3.5			0.2	0.4	Heinz et al. (1989)	0.3	0.5
Silver	6.1		3.872	24			1.4	18.1	Walker (1971)*	N/A	0.1
Sodium	11,900		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Thallium	2.9		0.946	2.7			0.2	0.237	Hudson et al. (1984)	0.4	0.7
Vanadium	319		0.675	215			13	11.4	White and Dieter (1978)	0.4	1.1
Zinc	421		8.465	3,564			208	14.5	Stahl et al. (1990)	1.1E-02	14
Cyanide	6.4		N/A	N/A			N/A	68.7	Tewe and Maner (1981)*	N/A	N/A
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	42		1	61	6.3E-03		3.6	N/A	N/A	N/A	N/A
Toluene	8.3		1	12	1.6E-04		0.7	26	Nawrot and Staples (1979)*	N/A	2.7E-02
Ethylbenzene	71		1	103		2.5E-04	6.1	N/A	N/A	N/A	N/A
Styrene	4.8		1	7.0		2.5E-04	0.4	N/A	N/A	N/A	N/A
Xylene (m,p)	100		1	145			8.6	2.1	Marks et al. (1982)*	–	4.1
Xylene (o)	23		1	33			2.0	2.1	Marks et al. (1982)*	–	0.9
Xylene isomers (total)	330		1	479	3.3E-04		28	2.1	Marks et al. (1982)*	N/A	14
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	1,000		3.86	5,597	1.2E-02		327	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	48		4.46	310	3.2E-03		18	6	Jori et al. (1982)	1.8	3.0
1,3-Dichlorobenzene	37		4.53	243			14	6	Jori et al. (1982)	1.4	2.4
1,4-Dichlorobenzene	170		4.53	1,117	3.4E-03		65	6	Jori et al. (1982)	6.4	11
1,2,4-Trichlorobenzene	35		4.90	249			14	8	Cote et al. (1988)*	N/A	1.8
Halogenated Alkanes											
Methylene chloride	8		1	12		2.2E-04	0.7	5.85	NCA (1982)*	N/A	0.1
Chloroform			1		8.5E-04		5.0E-05	15	Palmer et al. (1979)*	N/A	3.3E-06
1,1-Dichloroethane	1.2		1	1.7		2.5E-04	0.1	17.2	Almut et al. (1976)	–	6.0E-03
1,2-Dichloroethane	0.1		1	0.2		2.5E-04	1.2E-02	17.2	Almut et al. (1976)	9.3E-04	6.9E-04
1,1,1-Trichloroethane	2.7E-03		1	3.9E-03		2.5E-04	2.5E-04	1000	Lane et al. (1982)*	–	2.5E-07
Bromodichloromethane		7	1	10	2.4E-04		0.6	N/A	N/A	N/A	N/A

Table D-89. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFa	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Halogenated Alkenes											
Cis-1,2-dichloroethene	2.4E-03		1	3.5E-03		2.5E-04	2.2E-04	2.5	Quast et al. (1983)*	–	8.8E-05
Trichloroethene	4.0E-03		1	5.8E-03		2.5E-04	3.6E-04	0.7	Buben and O'Flaherty (1985)*	–	5.1E-04
Tetrachloroethene	3.0E-03		1	4.4E-03		2.5E-04	2.7E-04	1.4	Buben and O'Flaherty (1985)*	–	1.9E-04
Ketones											
Acetone	0.3		1	0.4			2.5E-02	10	USEPA (1986)*	N/A	2.5E-03
2-Butanone	9.4E-02		1	0.1		5.0E-03	8.4E-03	N/A	N/A		N/A
Miscellaneous Volatile Compounds											
Carbon disulfide	0.1		1	0.2		2.5E-04	1.2E-02	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	6.8		4.17	41			2.4	0.2	Vos et al. (1971)	2.5	12
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	26,000		2.637	99,415			5,816	1	Hough et al. (1993)	N/A	5,816
Acenaphthylene	19		0.762	21			1.3	1	Hough et al. (1993)	N/A	1.3
Acenaphthene	85		0.108	13			0.9	1	Hough et al. (1993)	N/A	0.9
Fluorene	140		0.964	196			12	1	Hough et al. (1993)	8.3	12
Phenanthrene	630		0.304	278			17	1	Hough et al. (1993)	22	17
Anthracene	95		0.108	15			1.0	1	Hough et al. (1993)	0.2	1.0
2-Methylnaphthalene	2,800		1	4,060			241	1	Hough et al. (1993)	N/A	241
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	250		0.54	196			12	1	Hough et al. (1993)	1.2	12
Pyrene	150		0.514	112			6.8	1	Hough et al. (1993)	8.9	6.8
Benz[a]anthracene	100		0.336	49			3.0	1	Hough et al. (1993)	5.9	3.0
Chrysene	100		0.438	64			3.9	1	Hough et al. (1993)	0.7	3.9
Benzo[b]fluoranthene	57		0.416	34			2.1	1	Hough et al. (1993)	N/A	2.1
Benzo[k]fluoranthene	60		0.291	25			1.6	1	Hough et al. (1993)	N/A	1.6
Benzo[a]pyrene	65		0.223	21			1.3	1	Hough et al. (1993)	0.2	1.3
Indeno[1,2,3-cd]pyrene	38		0.281	15			1.0	1	Hough et al. (1993)	0.1	1.0
Dibenz[a,h]anthracene	17		0.377	9.3			0.6	1	Hough et al. (1993)	4.0E-02	0.6
Benzo[ghi]perylene	35		0.047	2.4			0.2	1	Hough et al. (1993)	0.1	0.2
Phenols											
Phenol	2.6		1	3.8			0.2	6	Schafer et al. (1983)	3.1E-02	3.7E-02
2-Methylphenol	1.1		1	1.6			9.5E-02	219	Hornshaw et al. (1986)*	N/A	4.3E-04
4-Methylphenol	2.2		1	3.2			0.2	219	Hornshaw et al. (1986)*	N/A	8.6E-04
2,4-Dimethylphenol	1.0		1	1.4				N/A	N/A	–	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate	5.1		1	7.4			0.4	1.1	Peakall (1974)	0.2	0.4
Di-*n* -butyl phthalate	0.2		1	0.2			1.5E-02	0.11	Peakall (1974)	–	0.1
Miscellaneous Oxygenated Compounds											
Dibenzofuran	81		1	117			7.0	N/A	N/A	N/A	N/A
Carbazole	19		1	28			1.6	N/A	N/A	N/A	N/A
Organonitrogen Compounds											
4-Chloroaniline	0.1		1	0.2				N/A	N/A	–	N/A

Table D-89. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFa	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	1.3E-02		0.70	1.3E-02			7.9E-04	0.02	Sauter and Steele (1972)	1.5E-03	4.0E-02
β-Hexachlorocyclohexane	9.7E-03		1.15	1.6E-02			9.6E-04	0.02	Sauter and Steele (1972)	1.1E-03	4.8E-02
δ-Hexachlorocyclohexane	4.8E-03		1.15	8.1E-03			4.8E-04	0.02	Sauter and Steele (1972)	5.5E-04	2.4E-02
γ-Hexachlorocyclohexane	4.2E-03		0.60	3.7E-03			2.2E-04	0.02	Sauter and Steele (1972)	7.1E-04	1.1E-02
Aldrin	3.5E-03		8.50	4.3E-02			2.5E-03	0.77	Mendenhall et al. (1983)	4.0E-03	3.3E-03
α-Chlordane	1.5E-02		2.07	4.4E-02			2.6E-03	2.4	Stickel et al. (1983)	2.2E-05	1.1E-03
γ-Chlordane	5.0E-02		1.212	8.9E-02			5.2E-03	2.4	Stickel et al. (1983)	7.7E-05	2.2E-03
Chlordane isomers (sum)	5.0E-02		3.35	0.2			1.4E-02	2.4	Stickel et al. (1983)	–	6.0E-03
Dieldrin	3.6E-02		8.50	0.4			2.6E-02	0.077	Mendenhall et al. (1983)	3.1E-02	3.3E-01
α-Endosulfan	8.7E-03		2.7	3.4E-02			2.0E-03	50	Abiola (1992)	1.3E-05	4.0E-05
Endosulfan sulfate	3.1E-02		2.7	0.1			7.2E-03	11.1	Abiola (1992)	1.7E-04	6.5E-04
Endrin	8.4E-03		0.009	1.1E-04			2.2E-05	0.01	Fleming et al. (1982)	N/A	2.2E-03
Endrin aldehyde	3.5E-03		0.009	4.5E-05			9.2E-06	0.01	Fleming et al. (1982)	2.0E-02	9.2E-04
Endrin ketone	4.9E-02		0.009	6.4E-04			1.3E-04	0.01	Fleming et al. (1982)	0.3	1.3E-02
Heptachlor	5.3E-03		N/A	N/A			N/A	0.05	Wagstaff et al. (1980)	N/A	N/A
Heptachlor epoxide	5.2E-02		0.65	4.9E-02			2.9E-03	0.005	WHO (1984)	N/A	0.6
Methoxychlor	4.0E-03		1.2	7.0E-03			4.1E-04	2	Hudson et al. (1984)	1.2E-04	2.1E-04
4,4'-DDD	3.9E-03		0.41	2.3E-03			1.4E-04	0.0028	Anderson et al. (1975)	1.4E-03	5.1E-02
4,4'-DDE	2.1E-02		0.94	2.9E-02			1.7E-03	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	5.8E-02	4.6E-02
4,4'-DDT	8.8E-02		0.41	5.2E-02			3.2E-03	0.0028	Anderson et al. (1975)	1.0	1.1
Aroclor 1221	1.6		1.48	3.3			0.2	0.18	Dahlgren et al. (1982)	0.2	1.1
Aroclor 1242	19		1.48	40			2.4	0.41	McLane and Hughes (1980)	0.3	5.8
Aroclor 1248	0.1		1.48	0.3			1.5E-02	0.18	Dahlgren et al. (1982)	0.2	8.6E-02
Aroclor 1254	1.3		1.48	2.7			0.2	0.18	Dahlgren et al. (1982)	0.3	0.9
Aroclor 1260	1.0		1.48	2.2			0.1	33.3	Call and Harrell (1974)	6.9E-04	3.9E-03
Aroclor 1268	0.17		1.48	0.4			2.1E-02	0.18	Dahlgren et al. (1982)	0.2	0.1
PCBs (sum)	21		1.48	45			2.6	0.18	Dahlgren et al. (1982)	19	15

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
* Indicates that a mammalian TRV was used for screening due to lack of an avian one

[a] The recommendations for the Oak Ridge Reservation (USDOE, 1998) were followed for metals (90th percentile BSAFs non-depurated organisms). All other BSAFs are from the US Army Corps of Engineers database or based on professional judgment. The following BSAFs were applied for metals with no BSAFs: chromium for selenium and aluminum; arsenic for antimony, beryllium, and vanadium; cadmium for barium; and lead for manganese and thallium.

[b] Actual total and methylmercury concentrations were measured in composites of benthic macroinvertebrates. The maximum benthic sample concentrations were therefore used in this food web screening, as opposed to applying biota-sediment accumulation factors to sediment values.

[c] Hazard quotients equal to or greater than one are outlined.

NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-90. Sediment Screening Assessment for the Dioxins and Furans through Food Web Exposures for the Mallard (1999–2000)

Analyte	Sediment Maximum Detected Value[a] (ng/kg dry)	NYSDEC BSAF[b]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Avian TEF	TEQ	TRV[c] (ng/kg-day)	Honeywell Screening Hazard Quotient[d]	NYSDEC Screening Hazard Quotient[d]
Dioxins/Furans									
1,2,3,4,6,7,8-Heptachlorodibenzofuran	47	0.31	21	1.3	0.01	0.013			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p* -dioxin	18	0.35	13	0.8	0.001	0.001			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	29	0.7224	30	1.8	0.01	0.018			
1,2,3,4,7,8-Hexachlorodibenzofuran	79	0.21	24	1.5	0.1	0.154			
1,2,3,4,7,8-Hexachlorodibenzo-*p* -dioxin	2.8	0.51	2.1	0.1	0.05	0.006			
1,2,3,6,7,8-Hexachlorodibenzofuran	19	0.50	13	0.8	0.1	0.081			
1,2,3,6,7,8-Hexachlorodibenzo-*p* -dioxin	5.9	0.51	4.4	0.3	0.01	0.003			
1,2,3,7,8,9-Hexachlorodibenzofuran	7.4	0.35	3.8	0.2	0.1	0.023			
1,2,3,7,8,9-Hexachlorodibenzo-*p* -dioxin	5.6	0.51	4.1	0.2	0.1	0.025			
1,2,3,7,8-Pentachlorodibenzofuran	68	0.53	52	3.1	0.1	0.315			
1,2,3,7,8-Pentachlorodibenzo-*p* -dioxin	4.1	0.48	2.9	0.2	1	0.174			
2,3,4,6,7,8-Hexachlorodibenzofuran	7.9	0.70	8.0	0.5	0.1	0.048			
2,3,4,7,8-Pentachlorodibenzofuran	231	0.47	157	9.6	1	9.573			
2,3,7,8-Tetrachlorodibenzofuran	268	0.54	210	12.7	1	12.684			
2,3,7,8-Tetrachlorodibenzo-*p* -dioxin	1.1	0.56	0.9	0.1	1	0.054			
Octachlorodibenzofuran	214	0.19	59	3.8	0.0001	0.00038			
Octachlorodibenzo-*p* -dioxin	39	0.23	13	0.8	0.0001	0.00008			
						23	14	141	1.7

Notes: EED – estimated environmental dose
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] BSAFs are from the US Army Corps of database or based on professional judgment
[c] TRV for 2,3,7,8-TCDD (Nosek et al., 1992)
[d] Hazard quotients equal to or greater than one are outlined
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ

Table D-91. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Mallard (1999–2000)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Volatile Organic Compounds									
Halogenated Alkanes									
Chloromethane	7.5	1	11	5.0E-04	0.6	N/A	N/A	N/A	N/A
Bromomethane	7.5	1	11	5.0E-04	0.6	N/A	N/A	N/A	N/A
Chloroethane	7.5	1	11	5.0E-04	0.6	N/A	N/A	N/A	N/A
Carbon tetrachloride	7	1	10	2.5E-04	0.6	16	Alumot et al. (1976)*	N/A	3.8E-02
1,2-Dichloropropane	7	1	10	2.5E-04	0.6	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	7	1	10	2.5E-04	0.6	1,000	Lane et al. (1982)*	N/A	6.0E-04
Bromoform	7	1	10	2.5E-04	0.6	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	7	1	10	2.5E-04	0.6	N/A	N/A	N/A	N/A
Dibromochloromethane	7	1	10	2.5E-04	0.6	N/A	N/A	N/A	N/A
Halogenated Alkenes									
Vinyl chloride	7.5	1	11	5.0E-04	0.6	0.17	Feron et al. (1981)*	N/A	3.8
1,1-Dichloroethene	7	1	10	2.5E-04	0.6	2.5	Quast et al. (1983)*	N/A	0.2
cis -1,3-Dichloropropene	7	1	10	2.5E-04	0.6	N/A	N/A	N/A	N/A
trans -1,2-dichloroethene	7	1	10	2.5E-04	0.6	2.5	Quast et al. (1983)*	N/A	0.2
trans -1,3-Dichloropropene	7	1	10	2.5E-04	0.6	N/A	N/A	N/A	N/A
Ketones									
2-Hexanone	15	1	21	2.5E-03	1.2	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	15	1	21	2.5E-03	1.2	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds									
Chlorinated Aromatic Hydrocarbons									
2-Chloronaphthalene	115	1	167		9.9	N/A	N/A	N/A	N/A
Substituted Phenols									
2-Chlorophenol	115	1	167		9.9	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	600	1	870		52	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	600	1	870		52	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	600	1	870		52	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	600	1	870		52	N/A	N/A	N/A	N/A
Pentachlorophenol	3,000	1	4,350		258	0.24	Schwetz et al. (1978)	25	1,075
2-Nitrophenol	600	1	870		52	N/A	N/A	N/A	N/A
4-Nitrophenol	3,000	1	4,350		258	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	3,000	1	4,350		258	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol	3,000	1	4,350		258	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons									
Hexachloroethane	115	1	167		9.9	0.05	Tugarinova et al. (1960)*	N/A	198
Hexachlorobutadiene	115	1	167		9.9	0.2	Kociba et al. (1977)*	N/A	49
Hexachlorocyclopentadiene	600	1	870		52	N/A	N/A	N/A	N/A
Halogenated Ethers									
bis[2-chloroethyl]ether	115	1	167		9.9	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	115	1	167		9.9	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	115	1	167		9.9	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	115	1	167		9.9	N/A	N/A	N/A	N/A

Table D-91. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Phthalates									
Diethyl phthalate	115	1	167		9.9	4,580	Lamb et al. (1987)*	N/A	2.2E-03
Dimethyl phthalate	115	1	167		9.9	N/A	N/A	N/A	N/A
Butylbenzyl phthalate	115	1	167		9.9	N/A	N/A	N/A	N/A
Di-*n* -octyl phthalate	115	1	167		9.9	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds									
Isophorone	115	1	167		9.9	N/A	N/A	N/A	N/A
Benzyl alcohol	600	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Organonitrogen Compounds									
Nitrobenzene	115	1	167		9.9	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylamine	115	1	167		9.9	N/A	N/A	N/A	N/A
2-Nitroaniline	235	1	341		20	N/A	N/A	N/A	N/A
3-Nitroaniline	3,000	1	4,350		258	N/A	N/A	N/A	N/A
4-Nitroaniline	3,000	1	4,350		258	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	600	1	870		52	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	600	1	870		52	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	115	1	167		9.9	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	115	1	167		9.9	N/A	N/A	N/A	N/A
N-nitroso dimethylamine	600	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls									
β-Endosulfan	5.5E-04	1	8.0E-04		4.7E-05	50	Abiola (1992)	6.5E-07	9.5E-07
Toxaphene	5.7E-02	1	8.3E-02		4.9E-03	8	Kennedy et al. (1973)*	N/A	6.1E-04
Aroclor 1016	0.8	1.48	1.2E-03		7.0E-05	0.18	Dahlgren et al. (1982)	0.2	3.9E-04
Aroclor 1232	0.8	1.48	0.1		7.2E-03	0.18	Dahlgren et al. (1982)	0.2	4.0E-02

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] BSAFs are from the US Army Corps of Engineers database or based on professional judgment
[b] Hazard quotients equal to or greater than one are outlined
* indicates that a mammalian TRV was used for screening due to lack of an avian one
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-92. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the River Otter (1999–2000)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Total Metals and Cyanide											
Aluminum	369		14,500				27	1.93	Ondreicka et al. (1966)	7.7	14
Antimony		0.1	5.4				9.6E-03	0.125	Schroeder et al. (1968)	5.5E-02	0.1
Arsenic	6.8		47				0.4	0.126	Schroeder and Mitchner (1971)	1.1	3.0
Barium	23		2,070				2.3	5.1	Perry et al. (1983)	2.4	0.4
Beryllium	0.1		0.8				8.0E-03	0.66	Schroeder and Mitchner (1975)	4.5E-03	1.2E-02
Cadmium	3.1		15				0.2	1	Sutou et al. (1980)	5.0E-02	0.2
Calcium	319,435		409,000				16,823	N/A	N/A	N/A	N/A
Chromium	60		4,180		3.9E-03		5.3	3.28	Mackenzie et al. (1958)	0.9	1.6
Cobalt	3.5		170				0.3	5	Nation et al. (1983)	2.2E-02	5.4E-02
Copper	72		366				4.0	11.7	Aulerich et al. (1982)	0.1	0.3
Iron	721		50,800		0.6		64	N/A	N/A	N/A	N/A
Lead	6.4		750		3.1E-03		0.7	8	Azar et al. (1973)	0.2	0.1
Magnesium	9,326		34,700				503	N/A	N/A	N/A	N/A
Manganese	140		1190		0.6		7.9	88	Laskey et al. (1982)	2.7E-02	0.1
Methylmercury	8.7		10		1.4E-05		0.5	0.015	Wobeser et al. (1976)	33	30
Mercury	8.7		78		1.0E-04		0.5	1	Aulerich et al. (1974)	10	0.5
Nickel	60		1,670		4.7E-03		4.0	40	Ambrose et al. (1976)	3.5E-02	0.1
Potassium	79,638		3,480				4,143	N/A	N/A	N/A	N/A
Selenium	12		5.9				0.6	0.2	Rosenfeld and Beath (1954)	0.7	3.1
Silver	0.2		6.1				1.3E-02	18.1	Walker (1971)	3.2E-04	7.4E-04
Sodium	24,907		11,900				1,301	N/A	N/A	N/A	N/A
Thallium	8.1E-02		2.9				5.7E-03	0.0074	Formigli et al. (1986)	0.3	0.8
Vanadium	6.8		319				0.5	0.21	Domingo et al. (1986)	0.9	2.5
Zinc	1,272		421				66	160	Schlicker and Cox (1968)	0.1	0.4
Cyanide	69		6.4				3.6	68.7	Tewe and Maner (1981)	N/A	5.3E-02
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene			42		6.3E-03		2.2E-02	26	Nawrot and Staples (1979)	–	8.6E-04
Toluene			8.3		1.6E-04		4.3E-03	26	Nawrot and Staples (1979)	–	1.7E-04
Ethylbenzene			71			2.5E-04	3.7E-02	26	Nawrot and Staples (1979)	–	1.4E-03
Styrene			4.8			2.5E-04	2.5E-03	N/A	N/A	–	N/A
Xylene (m,p)			100				5.2E-02	2.1	Marks et al. (1982)	–	2.5E-02
Xylene (o)			23				1.2E-02	2.1	Marks et al. (1982)	–	5.7E-03
Xylene isomers (total)			330		3.3E-04		0.2	2.1	Marks et al. (1982)	–	8.2E-02
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene			1,000		1.2E-02		0.5	N/A	N/A	–	N/A
1,2-Dichlorobenzene			48		3.2E-03		2.5E-02	250	Lake et al. (1997)	–	1.0E-04
1,3-Dichlorobenzene			37				1.9E-02	250	Lake et al. (1997)	–	7.7E-05
1,4-Dichlorobenzene			170		3.4E-03		8.9E-02	250	Lake et al. (1997)	–	3.5E-04
Dichlorobenzenes (sum)			239		3.4E-03		0.1	250	Lake et al. (1997)	–	5.0E-04
1,2,4-Trichlorobenzene			35				1.8E-02	8	Cote et al. (1988)	–	2.3E-03
Trichlorobenzenes (sum)			35				1.8E-02	8	Cote et al. (1988)	–	2.3E-03
Halogenated Alkanes											
Methylene chloride			8			2.2E-04	4.2E-03	5.85	NCA (1982)	–	7.1E-04
Chloroform					8.5E-04		7.2E-05	15	Palmer et al. (1979)	–	4.8E-06
1,1-Dichloroethane			1.2			2.5E-04	6.5E-04	50	Lane et al. (1982)	–	1.3E-05

Table D-92. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
1,2-Dichloroethane			0.1			2.5E-04	9.3E-05	50	Lane et al. (1982)	–	1.9E-06
1,1,1-Trichloroethane			2.7E-03			2.5E-04	2.3E-05	1000	Lane et al. (1982)	–	2.3E-08
Bromodichloromethane				7	2.4E-04		3.7E-03	N/A	N/A	–	N/A
Halogenated Alkenes											
Cis-1,2-dichloroethene			2.4E-03			2.5E-04	2.2E-05	2.5	Quast et al. (1983)	–	9.0E-06
Trichloroethene			4.0E-03			2.5E-04	2.3E-05	0.7	Buben and O'Flaherty (1985)	–	3.3E-05
Tetrachloroethene			3.0E-03			2.5E-04	2.3E-05	1.4	Buben and O'Flaherty (1985)	–	1.6E-05
Ketones											
Acetone			0.3				1.5E-04	10	USEPA (1986)	–	1.5E-05
2-Butanone			9.4E-02			5.0E-03	4.7E-04	N/A	N/A	–	N/A
Miscellaneous Volatile Compounds											
Carbon disulfide			0.1			2.5E-04	9.4E-05	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	0.7		6.8				4.1E-02	0.05	Fassbender et al. (1977)	3.7E-02	0.8
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene			26,000				14	1	Mackenzie and Angevine (1981)	–	14
Acenaphthylene			19				9.9E-03	1	Mackenzie and Angevine (1981)	–	9.9E-03
Acenaphthene			85				4.4E-02	1	Mackenzie and Angevine (1981)	–	4.4E-02
Fluorene			140				7.3E-02	1	Mackenzie and Angevine (1981)	–	0.1
Phenanthrene			630				0.3	1	Mackenzie and Angevine (1981)	–	0.3
Anthracene			95				4.9E-02	1	Mackenzie and Angevine (1981)	–	4.9E-02
2-Methylnaphthalene			2,800				1.5	1	Mackenzie and Angevine (1981)	–	1.5
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene			250				0.130	1	Mackenzie and Angevine (1981)	–	0.1
Pyrene			150				7.8E-02	1	Mackenzie and Angevine (1981)	–	0.1
Benz[a]anthracene			100				5.2E-02	1	Mackenzie and Angevine (1981)	–	5.2E-02
Chrysene			100				5.2E-02	1	Mackenzie and Angevine (1981)	–	5.2E-02
Benzo[b]fluoranthene			57				3.0E-02	1	Mackenzie and Angevine (1981)	–	3.0E-02
Benzo[k]fluoranthene			60				3.1E-02	1	Mackenzie and Angevine (1981)	–	3.1E-02
Benzo[a]pyrene			65				3.4E-02	1	Mackenzie and Angevine (1981)	–	3.4E-02
Indeno[1,2,3-cd]pyrene			38				2.0E-02	1	Mackenzie and Angevine (1981)	–	2.0E-02
Dibenz[a,h]anthracene			17				8.8E-03	1	Mackenzie and Angevine (1981)	–	8.8E-03
Benzo[ghi]perylene			35				1.8E-02	1	Mackenzie and Angevine (1981)	–	1.8E-02
Phenols											
Phenol			2.6				1.4E-03	523	NCI (1980)	–	2.6E-06
2-Methylphenol			1.1				5.7E-04	219	Hornshaw et al. (1986)	–	2.6E-06
4-Methylphenol			2.2				1.1E-03	219	Hornshaw et al. (1986)	–	5.2E-06
2,4-Dimethylphenol			0.99				5.1E-04	N/A	N/A	–	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate			5.1				2.7E-03	18.3	Lamb et al. (1987)	–	1.4E-04
Di-*n* -butyl phthalate			0.2				8.8E-05	550	Lamb et al. (1987)	–	1.6E-07
Miscellaneous Oxygenated Compounds											
Dibenzofuran			81				4.2E-02	N/A	N/A	–	N/A
Carbazole			19				9.9E-03	N/A	N/A	–	N/A
Organonitrogen Compounds											
4-Chloroaniline			0.1				7.3E-05	N/A	N/A	–	N/A

Table D-92. (cont.)

Analyte	Fish Maximum Detected Value (mg/kg dry)	Fish One-Half MDL (mg/kg dry)	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane		3.2E-02	1.3E-02				1.7E-03	8	Palmer et al. (1978)	4.3E-04	2.1E-04
β-Hexachlorocyclohexane	2.8E-02		9.7E-03				1.5E-03	8	Palmer et al. (1978)	4.3E-04	1.8E-04
δ-Hexachlorocyclohexane		3.6E-02	4.8E-03				1.9E-03	8	Palmer et al. (1978)	2.3E-04	2.3E-04
γ-Hexachlorocyclohexane	5.7E-03		4.2E-03				3.0E-04	8	Palmer et al. (1978)	2.3E-04	3.7E-05
Aldrin	1.1E-02		3.5E-03				5.8E-04	0.2	Treon and Cleveland (1955)	9.2E-03	2.9E-03
α-Chlordane	2.1E-02		1.5E-02				1.1E-03	0.075	FAO/WHO (1983)	2.5E-04	1.4E-02
γ-Chlordane	1.5E-02		5.0E-02				8.0E-04	0.075	FAO/WHO (1983)	2.6E-04	1.1E-02
Chlordane isomers (sum)	6.0E-02		5.0E-02				3.1E-03	0.075	FAO/WHO (1983)	1.9E-03	4.2E-02
Dieldrin	0.4		3.6E-02				2.0E-02	0.018	Harr et al. (1970)	1.0	1.1
α-Endosulfan		3.2E-02	8.7E-03				1.7E-03	0.15	Dikshith et al. (1984)	1.2E-02	1.1E-02
Endosulfan sulfate	1.1E-02		3.1E-02				5.8E-04	0.15	Dikshith et al. (1984)	1.4E-02	3.9E-03
Endrin	0.2		8.4E-03				9.3E-03	0.065	Treon et al. (1955)	0.1	0.1
Endrin aldehyde	1.9E-02		3.5E-03				9.9E-04	0.065	Treon et al. (1955)	2.5E-02	1.5E-02
Endrin ketone	2.3E-02		4.9E-02				1.2E-03	0.065	Treon et al. (1955)	1.3E-02	1.9E-02
Heptachlor		3.2E-02	5.3E-03				1.7E-03	0.075	Kinoshita and Kempf (1970)	1.8E-02	2.3E-02
Heptachlor epoxide	3.2E-02		5.2E-02				1.7E-03	0.075	Kinoshita and Kempf (1970)	4.6E-02	2.3E-02
Methoxychlor		3.2E-02	4.0E-03				1.7E-03	4	Gray et al. (1988)	3.2E-04	4.2E-04
4,4'-DDD	0.4		3.9E-03				1.9E-02	85	NCI (1978) cited in ATSDR (1994)	2.2E-04	2.2E-04
4,4'-DDE	1.4		2.1E-02				7.3E-02	28	Gellert and Heinrich (1975), as cited in ATSDR (1994)	2.9E-03	2.6E-03
4,4'-DDT	0.2		8.8E-02				9.2E-03	0.8	Fitzhugh (1948)	4.4E-02	1.1E-02
DDT and metabolites (sum)	1.9						0.1	0.8	Fitzhugh (1948)	–	0.1
Aroclor 1221		0.5	1.6				2.5E-02	0.01	Barsotti et al. (1976)	2.3	2.5
Aroclor 1242	1.2		19				7.2E-02	0.069	Bleavins et al. (1980)	12	1.0
Aroclor 1248	8.4		0.1				0.4	0.01	Barsotti et al. (1976)	44	44
Aroclor 1254		0.2	1.3				1.3E-02	0.0068	McCoy et al. (1995)	8.6E-02	1.9
Aroclor 1260	9.0		1.0				0.5	6.9	Linder et al. (1974)	6.8E-02	0.1
Aroclor 1268		0.2	0.2				1.2E-02	0.01	Barsotti et al. (1976)	1.2	1.2
Aroclors 1254 and 1260	2.1						0.1	0.0068	McCoy et al. (1995)	–	16
PCBs (sum)	13		21				0.7	0.0068	McCoy et al. (1995)	11	103

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
Methylmercury in fish was assumed to be equal to the total mercury value
[a] Hazard quotients equal to or greater than one are outlined.
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-93. Fish Screening Assessment for Dioxins and Furans through Food Web Exposures for the River Otter (1999–2000)

Analyte	Fish Detected Value[a] (ng/kg dry)	Sediment Maximum Detected Value (ng/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Mammalian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.8	47	0.1	0.01	0.00118			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	5.6	18	0.3	0.01	0.00299			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.4	29	3.8E-02	0.01	0.00038			
1,2,3,4,7,8-Hexachlorodibenzofuran	21	79	1.1	0.1	0.11329			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	1.9	2.8	9.9E-02	0.1	0.00987			
1,2,3,6,7,8-Hexachlorodibenzofuran	7.8	19	0.4	0.1	0.04152			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	6.4	5.9	0.3	0.1	0.03359			
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	7.4	1.7E-02	0.1	0.00167			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	1.2	5.6	6.5E-02	0.1	0.00653			
1,2,3,7,8-Pentachlorodibenzofuran	27	68	1.4	0.05	0.07222			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	6.4	4.1	0.3	1	0.33234			
2,3,4,6,7,8-Hexachlorodibenzofuran	1.9	7.9	0.1	0.1	0.01034			
2,3,4,7,8-Pentachlorodibenzofuran	114	231	6.0	0.5	3.02406			
2,3,7,8-Tetrachlorodibenzofuran	64	268	3.5	0.1	0.34726			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	3.4	1.1	0.2	1	0.17685			
Octachlorodibenzofuran	0.2	214	0.1	0.0001	0.00001			
Octachlorodibenzo-*p*-dioxin	2.6	39	0.2	0.0001	0.00002			
					4.2	1.0	9.9	4.2

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO mammalian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ.
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] TRV for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-94. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposure for the River Otter (1999–2000)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds								
Halogenated Alkanes								
Chloromethane		7.5	5.0E-04	3.9E-03	N/A	N/A	–	N/A
Bromomethane		7.5	5.0E-04	3.9E-03	N/A	N/A	–	N/A
Chloroethane		7.5	5.0E-04	3.9E-03	N/A	N/A	–	N/A
Carbon tetrachloride		7.0	2.5E-04	3.7E-03	16	Alumot et al. (1976)	–	2.3E-04
1,2-Dichloropropane		7.0	2.5E-04	3.7E-03	N/A	N/A	–	N/A
1,1,2-Trichloroethane		7.0	2.5E-04	3.7E-03	1,000	Lane et al. (1982)	–	3.7E-06
Bromoform		7.0	2.5E-04	3.7E-03	N/A	N/A	–	N/A
1,1,2,2-Tetrachloroethane		7.0	2.5E-04	3.7E-03	N/A	N/A	–	N/A
Dibromochloromethane		7.0	2.5E-04	3.7E-03	N/A	N/A	–	N/A
Halogenated Alkenes								
Vinyl chloride		7.5	5.0E-04	3.9E-03	0.17	Feron et al. (1981)	–	2.3E-02
1,1-Dichloroethene		7.0	2.5E-04	3.7E-03	2.5	Quast et al. (1983)	–	1.5E-03
trans -1,2-dichloroethene		7.0	2.5E-04	3.7E-03	2.5	Quast et al. (1983)	–	1.5E-03
cis -1,3-Dichloropropene		7.0	2.5E-04	3.7E-03	N/A	N/A	–	N/A
trans -1,3-Dichloropropene		7.0	2.5E-04	3.7E-03	N/A	N/A	–	N/A
Ketones								
2-Hexanone		15	2.5E-03	7.8E-03	N/A	N/A	–	N/A
4-Methyl-2-pentanone		15	2.5E-03	7.8E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds								
Chlorinated Aromatic Hydrocarbons								
2-Chloronaphthalene		115		6.0E-02	N/A	N/A	–	N/A
Substituted Phenols								
2-Chlorophenol		115		6.0E-02	N/A	N/A	–	N/A
2,4-Dichlorophenol		600		0.3	N/A	N/A	–	N/A
4-Chloro-3-methylphenol		600		0.3	N/A	N/A	–	N/A
2,4,6-Trichlorophenol		600		0.3	N/A	N/A	–	N/A
2,4,5-Trichlorophenol		600		0.3	N/A	N/A	–	N/A
Pentachlorophenol		3,000		1.6	0.24	Schwetz et al. (1978)	–	6.5
2-Nitrophenol		600		0.3	N/A	N/A	–	N/A
4-Nitrophenol		3,000		1.6	N/A	N/A	–	N/A
2,4-Dinitrophenol		3,000		1.6	N/A	N/A	–	N/A
2-Methyl-4,6-dinitrophenol		3,000		1.6	N/A	N/A	–	N/A
Chlorinated Aliphatic Hydrocarbons								
Hexachloroethane		115		6.0E-02	0.05	Tugarinova et al. (1960)	–	1.2
Hexachlorobutadiene		115		6.0E-02	0.2	Kociba et al. (1977)	–	0.3
Hexachlorocyclopentadiene		600		0.3	N/A	N/A	–	N/A
Halogenated Ethers								
bis[2-chloroethyl]ether		115		6.0E-02	N/A	N/A	–	N/A
4-Chlorophenyl-phenyl ether		115		6.0E-02	N/A	N/A	–	N/A

Table D-94. (cont.)

Analyte	Fish One-Half MDL (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
4-Bromophenyl-phenyl ether		115		6.0E-02	N/A	N/A	–	N/A
bis[2-chloroethoxy]methane		115		6.0E-02	N/A	N/A	–	N/A
Phthalates								
Diethyl phthalate		115		6.0E-02	4,580	Lamb et al. (1987)	–	1.3E-05
Dimethyl phthalate		115		6.0E-02	N/A	N/A	–	N/A
Butylbenzyl phthalate		115		6.0E-02	N/A	N/A	–	N/A
Di-*n*-octyl phthalate		115		6.0E-02	N/A	N/A	–	N/A
Miscellaneous Oxygenated Compounds								
Isophorone		115		6.0E-02	N/A	N/A	–	N/A
Benzyl alcohol		600		0.3	N/A	N/A	–	N/A
Organonitrogen Compounds								
Nitrobenzene		115		6.0E-02	N/A	N/A	–	N/A
N-nitroso-di-*n*-propylamine		115		6.0E-02	N/A	N/A	–	N/A
2-Nitroaniline		235		0.1	N/A	N/A	–	N/A
3-Nitroaniline		3,000		1.56	N/A	N/A	–	N/A
4-Nitroaniline		3,000		1.56	N/A	N/A	–	N/A
2,6-Dinitrotoluene		600		0.31200	N/A	N/A	–	N/A
2,4-Dinitrotoluene		600		0.31200	N/A	N/A	–	N/A
N-nitrosodiphenylamine		115		6.0E-02	N/A	N/A	–	N/A
3,3'-Dichlorobenzidine		115		6.0E-02	N/A	N/A	–	N/A
N-nitroso dimethylamine		600		0.3	N/A	N/A	–	N/A
Pesticides/Polychlorinated Biphenyls								
β-Endosulfan	0.7	5.5E-04		3.7E-02	0.15	Dikshith et al. (1984)	0.2	0.2
Toxaphene	4.1	5.7E-02		0.2	8	Kennedy et al. (1973)	2.5E-02	2.7E-02
Aroclor 1016	0.2	0.8		1.3E-02	1.37	Bleavins et al. (1980)	9.3E-03	9.3E-03
Aroclor 1232	0.2	0.8		1.3E-02	0.01	Barsotti et al. (1976)	1.2	1.3

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
[a] Hazard quotients equal to or greater than one are outlined.

Table D-95. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Tree Swallow (1999–2000)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Total Metals and Cyanide												
Aluminum	14,500		0.588	8,526				2,055	110	Carriere et al. (1986)	6.5E-02	19
Antimony	5.4		0.675	3.7				0.9	1400	Damron and Wilson (1975)	5.7E-04	6.3E-04
Arsenic	47		0.675	31.9				8	2.46	USFWS (1964)	1.6	3.1
Barium	2,070		9.24	19,127				4,610	20.8	Johnson et al. (1960)	2.3	222
Beryllium	0.8		0.675	0.5				0.1	0.66	Schroeder and Mitchner (1975)*	N/A	N/A
Cadmium	15		9.24	138				33	1.45	White and Finley (1978)	1.1	23
Calcium	409,000		N/A	N/A				N/A	N/A	N/A	N/A	N/A
Chromium	4,180		0.588	2,458		3.9E-03		592	1	Haseltine et al. (nd)	5.0	592
Cobalt	170		3.15	536				129	5	Nation et al. (1983)*	N/A	26
Copper	366		3.872	1,417				342	47	Mehring et al. (1960)	3.2E-02	7
Iron	50,800		3.15	160,020		0.6		38,565	N/A	N/A	N/A	N/A
Lead	750		0.946	710		3.1E-03		171	1.13	Edens et al. (1976)	38	151
Magnesium	34,700		N/A	N/A				N/A	N/A	N/A	N/A	N/A
Manganese	1,190		0.946	1,126		0.6		271	977	Laskey and Edens (1985)	7.1E-02	0.3
Methylmercury	10		b	2.5		1.4E-05		0.6	0.0064	Heinz (1979)	131	95
Mercury	78		b	53		1.0E-04		13	0.45	Hill and Schaffner (1976)	25	28
Nickel	1,670		3.15	5,261		4.7E-03		1,268	77.4	Cain and Pafford (1981)	0.5	16
Potassium	3,480		N/A	N/A				N/A	N/A	N/A	N/A	N/A
Selenium	5.9		0.588	3.5				0.8	0.4	Heinz et al. (1989)	1.3	2.1
Silver	6.1		3.872	24				5.7	18.1	Walker (1971)*	N/A	0.3
Sodium	11,900		N/A	N/A				N/A	N/A	N/A	N/A	N/A
Thallium	2.9		0.946	2.7				0.7	0.237	Hudson et al. (1984)	1.6	2.8
Vanadium	319		0.675	215				52	11.4	White and Dieter (1978)	1.6	4.6
Zinc	421		8.465	3,564				859	14.5	Stahl et al. (1990)	1.2E-02	59
Cyanide	6.4		N/A	N/A				N/A	68.7	Tewe and Maner (1981)*	N/A	N/A
Volatile Organic Compounds												
Aromatic Hydrocarbons												
Benzene	42		1	61		6.3E-03		15	N/A	N/A	N/A	N/A
Toluene	8.3		1	12		1.6E-04		2.9	26	Nawrot and Staples (1979)*	N/A	0.1
Ethylbenzene	71		1	103			2.5E-04	25	N/A	N/A	N/A	N/A
Styrene	4.8		1	7.0			2.5E-04	1.7	N/A	N/A	N/A	N/A
Xylene (m,p)	100		1	145				35	2.1	Marks et al. (1982)*	–	17
Xylene (o)	23		1	33				8.0	2.1	Marks et al. (1982)*	–	3.8
Xylene isomers (total)	330		1	479		3.3E-04		115	2.1	Marks et al. (1982)*	N/A	55
Chlorinated Aromatic Hydrocarbons												
Chlorobenzene	1,000		3.86	5,597		1.2E-02		1,349	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	48		4.46	310		3.2E-03		75	6	Jori et al. (1982)	7.50	12
1,3-Dichlorobenzene	37		4.53	243				59	6	Jori et al. (1982)	5.8	9.8
1,4-Dichlorobenzene	170		4.53	1,117		3.4E-03		269	6	Jori et al. (1982)	27	45
1,2,4-Trichlorobenzene	35		4.90	249				60	8	Cote et al. (1988)*	N/A	7.5
Halogenated Alkanes												
Methylene chloride	8		1	12			2.2E-04	2.8	5.85	NCA (1982)*	N/A	0.5
Chloroform			1	0.0E+00	7	8.5E-04		2.0E-04	15	Palmer et al. (1979)*	N/A	1.3E-05
1,1-Dichloroethane	1.2		1	1.7			2.5E-04	0.4	17.2	Almut et al. (1976)	–	2.4E-02
1,2-Dichloroethane	0.1		1	0.2			2.5E-04	4.8E-02	17.2	Almut et al. (1976)	3.7E-03	2.8E-03
1,1,1-Trichloroethane	2.7E-03		1	3.9E-03			2.5E-04	1.0E-03	1000	Lane et al. (1982)*	–	1.0E-06
Bromodichloromethane		7	1	10	7	2.4E-04		2.4	N/A	N/A	N/A	N/A

Table D-95. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Halogenated Alkenes												
Cis-1,2-dichloroethene	2.4E-03		1	3.5E-03			2.5E-04	9.0E-04	2.5	Quast et al. (1983)*	–	3.6E-04
Trichloroethene	4.0E-03		1	5.8E-03			2.5E-04	1.5E-03	0.7	Buben and O'Flaherty (1985)*	–	2.1E-03
Tetrachloroethene	3.0E-03		1	4.4E-03			2.5E-04	1.1E-03	1.4	Buben and O'Flaherty (1985)*	–	7.9E-04
Ketones												
Acetone	0.3		1	0.4				0.1	10	USEPA (1986)*	N/A	1.0E-02
2-Butanone	9.4E-02		1	0.1			5.0E-03	3.4E-02	N/A	N/A	–	N/A
Miscellaneous Volatile Compounds												
Carbon disulfide	0.1		1	0.2			2.5E-04	4.9E-02	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds												
Chlorinated Aromatic Hydrocarbons												
Hexachlorobenzene	6.8		4.17	41				9.8	0.2	Vos et al. (1971)	10	49
Low Molecular Weight Polycyclic Aromatic Hydrocarbons												
Naphthalene	26,000		2.637	99,415				23,959	1	Hough et al. (1993)	N/A	23,959
Acenaphthylene	19		0.762	21				5.1	1	Hough et al. (1993)	N/A	5.1
Acenaphthene	85		0.108	13				3.2	1	Hough et al. (1993)	N/A	3.2
Fluorene	140		0.964	196				47	1	Hough et al. (1993)	34	47
Phenanthrene	630		0.304	278				67	1	Hough et al. (1993)	89	67
Anthracene	95		0.108	15				3.6	1	Hough et al. (1993)	0.2	3.6
2-Methylnaphthalene	2,800		1	4,060				978	1	Hough et al. (1993)	N/A	978
High Molecular Weight Polycyclic Aromatic Hydrocarbons												
Fluoranthene	250		0.54	196				47	1	Hough et al. (1993)	3.2	47
Pyrene	150		0.514	112				27	1	Hough et al. (1993)	36	27
Benz[a]anthracene	100		0.336	49				12	1	Hough et al. (1993)	24	12
Chrysene	100		0.438	64				15	1	Hough et al. (1993)	2.0	15
Benzo[b]fluoranthene	57		0.416	34				8.3	1	Hough et al. (1993)	N/A	8.3
Benzo[k]fluoranthene	60		0.291	25				6.1	1	Hough et al. (1993)	N/A	6.1
Benzo[a]pyrene	65		0.223	21				5.1	1	Hough et al. (1993)	0.4	5.1
Indeno[1,2,3-cd]pyrene	38		0.281	15				3.7	1	Hough et al. (1993)	0.1	3.7
Dibenz[a,h]anthracene	17		0.377	9.3				2.2	1	Hough et al. (1993)	3.2E-02	2.2
Benzo[ghi]perylene	35		0.047	2.4				0.6	1	Hough et al. (1993)	0.2	0.6
Phenols												
Phenol	2.6		1	3.8				0.9	6	Schafer et al. (1983)	0.1	0.2
2-Methylphenol	1.1		1	1.6				0.4	219	Hornshaw et al. (1986)*	N/A	1.8E-03
4-Methylphenol	2.2		1	3.2				0.8	219	Hornshaw et al. (1986)*	N/A	3.5E-03
2,4-Dimethylphenol	1.0		1	1.4					N/A	N/A	–	N/A
Phthalates												
bis[2-Ethylhexyl]phthalate	5.1		1	7.4				1.8	1.1	Peakall (1974)	1.0	1.6
Di-*n* -butyl phthalate	0.2		1	0.2				5.9E-02	0.11	Peakall (1974)	–	0.5
Miscellaneous Oxygenated Compounds												
Dibenzofuran	81		1	117				28	N/A	N/A	N/A	N/A
Carbazole	19		1	28				6.6	N/A	N/A	N/A	N/A
Organonitrogen Compounds												
4-Chloroaniline	0.1		1	0.2				4.9E-02	N/A	N/A	–	N/A

Table D-95. (cont.)

Analyte	Sediment Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAF[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Pesticides/Polychlorinated Biphenyls												
α-Hexachlorocyclohexane	1.3E-02		0.70	1.3E-02				3.2E-03	0.02	Sauter and Steele (1972)	6.1E-03	0.2
β-Hexachlorocyclohexane	9.7E-03		1.15	1.6E-02				3.9E-03	0.02	Sauter and Steele (1972)	4.6E-03	0.2
δ-Hexachlorocyclohexane	4.8E-03		1.15	8.1E-03				1.9E-03	0.02	Sauter and Steele (1972)	2.3E-03	9.7E-02
γ-Hexachlorocyclohexane	4.2E-03		0.60	3.7E-03				8.9E-04	0.02	Sauter and Steele (1972)	2.9E-03	4.4E-02
Aldrin	3.5E-03		8.50	4.3E-02				1.0E-02	0.77	Mendenhall et al. (1983)	1.6E-02	1.4E-02
α-Chlordane	1.5E-02		2.07	4.4E-02				1.1E-02	2.4	Stickel et al. (1983)	4.5498E-05	4.5E-03
γ-Chlordane	5.0E-02		1.212	8.9E-02				2.1E-02	2.4	Stickel et al. (1983)	1.5E-04	8.9E-03
Chlordane isomers (sum)	5.0E-02		3.35	0.2				5.9E-02	2.4	Stickel et al. (1983)	–	2.5E-02
Dieldrin	3.6E-02		8.50	0.4				0.1	0.077	Mendenhall et al. (1983)	0.1	1.4
α-Endosulfan	8.7E-03		2.7	3.4E-02				8.2E-03	50	Abiola (1992)	5.19E-05	1.6E-04
Endosulfan sulfate	3.1E-02		2.7	0.1				3.0E-02	11.1	Abiola (1992)	6.7E-04	2.7E-03
Endrin	8.4E-03		0.009	N/A				N/A	0.01	Fleming et al. (1982)	N/A	N/A
Endrin aldehyde	3.5E-03		0.009	4.5E-05				1.1E-05	0.01	Fleming et al. (1982)	8.2E-02	1.1E-03
Endrin ketone	4.9E-02		0.009	6.4E-04				1.5E-04	0.01	Fleming et al. (1982)	1.2	1.5E-02
Heptachlor	5.3E-03		N/A	N/A				N/A	0.05	Wagstaff et al. (1980)	N/A	N/A
Heptachlor epoxide	5.2E-02		0.65	N/A				N/A	0.005	WHO (1984)	N/A	N/A
Methoxychlor	4.0E-03		1.2	7.0E-03				1.7E-03	2	Hudson et al. (1984)	4.8E-04	8.4E-04
4,4'-DDD	3.9E-03		0.41	2.3E-03				5.6E-04	0.0028	Anderson et al. (1975)	5.8E-03	0.2
4,4'-DDE										Mendenhall et al. (1983), as	0.2	
	2.1E-02		0.94	2.9E-02				7.0E-03	0.038	cited in WHO (1989)		0.2
4,4'-DDT	8.8E-02		0.41	5.2E-02				1.3E-02	0.0028	Anderson et al. (1975)	4.0	4.5
Aroclor 1221	1.6		1.48	3.3	0.715			0.8	0.18	Dahlgren et al. (1982)	0.9	4.5
Aroclor 1242	19		1.48	40				9.7	0.41	McLane and Hughes (1980)	0.8	24
Aroclor 1248	0.1		1.48	0.3				6.3E-02	0.18	Dahlgren et al. (1982)	0.8	0.4
Aroclor 1254	1.3		1.48	2.7				0.7	0.18	Dahlgren et al. (1982)	1.0	3.6
Aroclor 1260	1.0		1.48	2.2				0.5	33.3	Call and Harrell (1974)	2.6E-03	1.6E-02
Aroclor 1268	0.17		1.48	0.4	0.715			8.8E-02	0.18	Dahlgren et al. (1982)	0.9	0.5
PCBs (sum)	21		1.48	45				11	0.18	Dahlgren et al. (1982)	80	60

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
* indicates that a mammalian TRV was used for screening due to lack of an avian one

[a] The recommendations for the Oak Ridge Reservation (USDOE, 1998) were followed for metals (90th percentile BSAFs non-depurated organisms). All other BSAFs are from the US Army Corps of Engineers database or based on professional judgment. The following BSAFs were applied for metals with no BSAFs: chromium for selenium and aluminum; arsenic for antimony, beryllium, and vanadium; cadmium for barium; and lead for manganese and thallium.
[b] Actual total and methylmercury concentrations were measured in composites of benthic macroinvertebrates. The maximum benthic sample concentrations were therefore used in this food web screening, as opposed to applying biota-sediment accumulation factors to sediment values.
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-9. Ratios of Maximum Concentrations of Detected Chemicals in Onondaga Lake Surface Water in 1992 to Minimum Screening Values

Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Conventional Analytes						
Total chloride [b]	mg/L	dissolved	479	C	230	2.1
Total chloride	mg/L	unfiltered	554	C	230	2.4
Total Metals and Cyanide[c,d]						
Aluminum	µg/L	unfiltered	119	C	87	1.4
Antimony	µg/L	unfiltered	26	D	1,600	1.6E-02
Arsenic	µg/L	unfiltered	1.1	C, G	150	7.3E-03
Barium	µg/L	unfiltered	77	H	3.9	20
Cadmium	µg/L	unfiltered	2.9	A	1.3	2.2
Chromium	µg/L	unfiltered	18	C, G	94.8	0.2
Copper	µg/L	unfiltered	51	C, G	11.57	4.4
Iron	µg/L	unfiltered	362	G	300	1.2
Lead	µg/L	unfiltered	18	C	3.48	5.2
Manganese	µg/L	unfiltered	880	H	80	11
Methylmercury	ng/L	dissolved	9.2	H	3.0	3.1
Methylmercury	ng/L	unfiltered	12	H	3.0	4.1
Total mercury	ng/L	dissolved	11	I	2.6	4.1
Total mercury	ng/L	unfiltered	59	I	2.6	23
Nickel	µg/L	unfiltered	17	C, G	67.04	0.2
Zinc	µg/L	unfiltered	143	G	106.6	1.3
Cyanide[e]	µg/L	unfiltered	171	C, G	5.2	33
Volatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
1,2-Dichlorobenzene	µg/L	unfiltered	1.7	H	14	0.1
1,3-Dichlorobenzene	µg/L	unfiltered	1.2	H	71	1.7E-02
1,4-Dichlorobenzene	µg/L	unfiltered	1.7	H	15	0.1
Dichlorobenzenes (Sum)	µg/L	unfiltered	4.6	G	5	0.9
1,2,4-Trichlorobenzene	µg/L	unfiltered	2.4	H	110	2.2E-02
Trichlorobenzenes (Sum)	µg/L	unfiltered	6.7	G	5	1.3
Phthalates						
bis[2-Ethylhexyl]phthalate	µg/L	unfiltered	10	G	0.6	17

Notes: A – USEPA AWQC/FCV (Aquatic Life) – 135 mg/L hardness
B – USEPA Acute (Aquatic Life)
C – USEPA CCC (Aquatic Life) – 135mg/L hardness
D – USEPA Chronic (Aquatic Life)
E – USEPA CMC (Aquatic Life) – 135 mg/L hardness
F – NYSDEC Acute (Aquatic Life) – 135 mg/L hardness
G – NYSDEC Chronic (Aquatic Life) – 135 mg/L hardness
H – USEPA Tier II (Aquatic Life) – 135 mg/L hardness
I – NYSDEC (Wildlife)
[a] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined
[b] Reference does not distinguish between dissolved and unfiltered
[c] All metal screening values refer to the dissolved form
[d] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion
[e] As free cyanide; the sum of HCN and CN expressed as CN

Table D-10. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Onondaga Lake Surface Water in 1992 to Minimum Screening Values

Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Total Metals and Cyanide[b]						
Beryllium	µg/L	unfiltered	0.5	H	5.1	9.8E-02
Cobalt	µg/L	unfiltered	2	H	3	0.7
Selenium	µg/L	unfiltered	0.5	C, G	4.6	0.1
Silver	µg/L	unfiltered	1	E	5.78	0.2
Thallium	µg/L	unfiltered	2.5	G	8	0.3
Vanadium	µg/L	unfiltered	2	G	14	0.1
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	5	H	46	0.1
Toluene	µg/L	unfiltered	5	H	130	3.8E-02
Ethylbenzene	µg/L	unfiltered	5	H	290	1.7E-02
Xylene isomers (total)[c]	µg/L	unfiltered	5	H	1.8	2.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	5	G	5	1.0
Halogenated Alkanes						
1,1-Dichloroethane	µg/L	unfiltered	5	H	47	0.1
1,1,1-Trichloroethane	µg/L	unfiltered	5	H	62	8.1E-02
1,2-Dichloropropane	µg/L	unfiltered	5	D	5,700	8.8E-04
1,1,2-Trichloroethane	µg/L	unfiltered	5	D	9,400	5.3E-04
1,1,2,2-Tetrachloroethane	µg/L	unfiltered	5	H	420	1.2E-02
Halogenated Alkenes						
cis -1,3-Dichloropropene	µg/L	unfiltered	5	D	244	2.0E-02
trans -1,3-Dichloropropene	µg/L	unfiltered	5	D	244	2.0E-02
Trichloroethene	µg/L	unfiltered	5	H	350	1.4E-02
Tetrachloroethene	µg/L	unfiltered	5	H	120	4.2E-02
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	5	D	3.68	1.4
Low Molecular Weight Polycyclic Aromatic Hydrocarbons						
Naphthalene	µg/L	unfiltered	5	H	24	0.2
Acenaphthene	µg/L	unfiltered	5	A	23	0.2
Fluorene	µg/L	unfiltered	5	H	3.9	1.3
Phenanthrene	µg/L	unfiltered	5	A	6.3	0.8
High Molecular Weight Polycyclic Aromatic Hydrocarbons						
Fluoranthene	µg/L	unfiltered	5	A	8.1	0.6
Benzo[a]pyrene		unfiltered	5	H	0.014	357
Phenols						
Phenol	µg/L	unfiltered	5	D	2,560	2.0E-03
Substituted Phenols						
2-Chlorophenol	µg/L	unfiltered	5	B	4,380	1.1E-03
2,4-Dichlorophenol	µg/L	unfiltered	5	D	365	1.4E-02
2,4,6-Trichlorophenol	µg/L	unfiltered	5	D	970	5.2E-03
2,4,5-Trichlorophenol	µg/L	unfiltered	13	D	63	0.2

Table D-10. (cont.)

Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[a]
Pentachlorophenol	µg/L	unfiltered	13	A	13	1.0
2-Nitrophenol	µg/L	unfiltered	5	D	150	3.3E-02
4-Nitrophenol	µg/L	unfiltered	13	D	150	8.3E-02
Chlorinated Aliphatic Hydrocarbons						
Hexachloroethane	µg/L	unfiltered	5	H	12	0.4
Hexachlorobutadiene	µg/L	unfiltered	5	G	1	5.0
Hexachlorocyclopentadiene	µg/L	unfiltered	5	G	0.45	11
Halogenated Ethers						
4-Bromophenyl-phenyl ether	µg/L	unfiltered	5	H	1.5	3.3
Phthalates						
Diethyl phthalate	µg/L	unfiltered	5	H	220	2.3E-02
Di-*n* -butyl phthalate	µg/L	unfiltered	5	H	33	0.2
Butylbenzyl phthalate	µg/L	unfiltered	5	H	19	0.3
Miscellaneous Oxygenated Compounds						
Dibenzofuran	µg/L	unfiltered	5	H	20	0.3
Organonitrogen Compounds						
2,4-Dinitrotoluene	µg/L	unfiltered	5	D	230	2.2E-02
Pesticides and PCBs						
γ-Hexachlorocyclohexane	µg/L	unfiltered	2.6E-02	A, D	0.08	0.3
Aldrin	µg/L	unfiltered	2.6E-02	E	3	8.7E-03
α-Chlordane	µg/L	unfiltered	2.6E-02	C	0.0043	6.0
γ-Chlordane	µg/L	unfiltered	2.6E-02	C	0.0043	6.0
Dieldrin	µg/L	unfiltered	5.0E-02	C	0.056	0.9
α-Endosulfan	µg/L	unfiltered	2.6E-02	G	0.009	2.9
β-Endosulfan	µg/L	unfiltered	5.0E-02	G	0.009	5.6
Endrin	µg/L	unfiltered	5.0E-02	C, G	0.036	1.4
Heptachlor	µg/L	unfiltered	2.6E-02	C	0.0038	6.8
Heptachlor epoxide	µg/L	unfiltered	2.6E-02	C	0.0038	6.8
Methoxychlor	µg/L	unfiltered	0.3	H	0.019	14
4,4'-DDT	µg/L	unfiltered	5.0E-02	C	0.001	50
Toxaphene	µg/L	unfiltered	2.6	C	0.0002	13,000

Notes: A – USEPA AWQC/FCV (Aquatic Life)
B – USEPA Acute (Aquatic Life)
C – USEPA CCC (Aquatic Life)
D – USEPA Chronic (Aquatic Life)
E – USEPA CMC (Aquatic Life)
F – NYSDEC Acute (Aquatic life)
G – NYSDEC Chronic (Aquatic Life)
H – USEPA Tier II (Aquatic Life)
I – NYSDEC (Wildlife)
MDL – maximum detection limit
[a] Ratios are one-half of the MDLs divided by minimum screening values. Values equal to or greater than one are outlined
[b] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion
[c] Applied USEPA Tier II screening value for m-xylene

Table D-11. Ratios of Maximum Concentrations of Detected Chemicals in Metro Discharge and Onondaga Lake Tributary Water at Base-Flow in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Metro Outfall						
Conventional Analytes						
Total chloride	mg/L	unfiltered	163	C	230	0.7
Metals						
Chromium	µg/L	unfiltered	2.5	B, C	94.8	2.6E-02
Copper	µg/L	unfiltered	12	B, C	11.6	1.0
Lead	µg/L	unfiltered	1.1	C	3.5	0.3
Methylmercury	ng/L	unfiltered	3.1	D	3	1.0
Nickel	µg/L	unfiltered	19	B, C	67	0.3
Total mercury	ng/L	unfiltered	56	E	2.6	22
Zinc	µg/L	unfiltered	42	B	107	0.4
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Toluene	µg/L	unfiltered	3.1	D	130	2.4E-02
Onondaga Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	1,115	C	230	4.8
Metals						
Copper	µg/L	unfiltered	6.4	B, C	11.6	0.6
Lead	µg/L	unfiltered	3.5	C	3.5	1.0
Methylmercury	ng/L	unfiltered	0.4	D	3	0.1
Total mercury	ng/L	unfiltered	14	E	2.6	5.5
Zinc	µg/L	unfiltered	51	B	107	0.5
Harbor Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	366	C	230	1.6
Metals						
Chromium	µg/L	unfiltered	4.5	B, C	94.8	4.7E-02
Copper	µg/L	unfiltered	1.6	B, C	11.6	0.1
Lead	µg/L	unfiltered	1.7	C	3.5	0.5
Methylmercury	ng/L	unfiltered	0.5	D	3	0.2
Nickel	µg/L	unfiltered	9.1	B, C	67	0.1
Total mercury	ng/L	unfiltered	4.0	E	2.6	1.5
Zinc	µg/L	unfiltered	6.4	B	107	0.1
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	1.7	D	46	3.7E-02
Toluene	µg/L	unfiltered	2.6	D	130	2.0E-02
Xylene isomers (total)	µg/L	unfiltered	1.7	D	1.8	0.9
Ley Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	323	C	230	1.4
Metals						
Chromium	µg/L	unfiltered	4.3	B, C	94.8	4.5E-02
Copper	µg/L	unfiltered	4.1	B, C	11.6	0.4
Lead	µg/L	unfiltered	7.4	C	3.5	2.1
Methylmercury	ng/L	unfiltered	0.3	D	3	0.1
Total mercury	ng/L	unfiltered	9.4	E	2.6	3.6
Zinc	µg/L	unfiltered	22	B	107	0.2
East Flume						
Conventional Analytes						
Total chloride	mg/L	unfiltered	610	C	230	2.7
Metals						
Chromium	µg/L	unfiltered	11	B, C	94.8	0.1
Copper	µg/L	unfiltered	15	B, C	11.6	1.3
Lead	µg/L	unfiltered	11	C	3.5	3.1
Methylmercury	ng/L	unfiltered	1.2	D	3	0.4

Table D-11. (cont.)

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Total mercury	ng/L	unfiltered	95	E	2.6	36
Zinc	µg/L	unfiltered	196	B	107	1.8
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	15	D	46	0.3
Toluene	µg/L	unfiltered	2.5	D	130	1.9E-02
Xylene isomers (total)	µg/L	unfiltered	1.4	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	7.6	B	5	1.5
1,2-Dichlorobenzene	µg/L	unfiltered	10	D	14	0.7
1,4-Dichlorobenzene	µg/L	unfiltered	13	D	15	0.9
Dichlorobenzene (Sum)	µg/L	unfiltered	23	D	71	0.3
Tributary 5A						
Conventional Analytes						
Total chloride	mg/L	unfiltered	352	C	230	1.5
Metals						
Chromium	µg/L	unfiltered	28	B, C	94.8	0.3
Copper	µg/L	unfiltered	10	B, C	11.6	0.9
Iron	µg/L	unfiltered	396	B	300	1.3
Lead	µg/L	unfiltered	2.1	C	3.5	0.6
Manganese	µg/L	unfiltered	89	D	80	1.1
Methylmercury	ng/L	unfiltered	0.5	D	3	0.2
Nickel	µg/L	unfiltered	115	B, C	67	1.7
Total mercury	ng/L	unfiltered	19	E	2.6	7.5
Zinc	µg/L	unfiltered	59	B	107	0.6
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	34	D	46	0.7
Toluene	µg/L	unfiltered	4.2	D	130	3.2E-02
Xylene isomers (total)	µg/L	unfiltered	2.2	D	1.8	1.2
Bloody Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	233	C	230	1.0
Metals						
Copper	µg/L	unfiltered	1.9	B, C	11.6	0.2
Methylmercury	ng/L	unfiltered	4.7E-02	D	3	1.6E-02
Total mercury	ng/L	unfiltered	3.6	E	2.6	1.4
Ninemile Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	1,411	C	230	6.1
Metals						
Iron	µg/L	unfiltered	524	B	300	1.7
Manganese	µg/L	unfiltered	113	D	80	1.4
Methylmercury	ng/L	unfiltered	0.2	D	3	6.6E-02
Total mercury	ng/L	unfiltered	21	E	2.6	8.0
Zinc	µg/L	unfiltered	5.6	B	107	0.1
Sawmill Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	205	C	230	0.9
Metals						
Methylmercury	ng/L	unfiltered	0.2	D	3	7.1E-02
Total mercury	ng/L	unfiltered	2.0	E	2.6	0.8
Geddes Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	930	C	230	4.0
Metals						
Copper	µg/L	unfiltered	3.8	B, C	11.6	0.3
Iron	µg/L	unfiltered	565	B	300	1.9

Table D-11. (cont.)

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Lead	µg/L	unfiltered	1.2	C	3.5	0.3
Manganese	µg/L	unfiltered	121	D	80	1.5
Methylmercury	ng/L	unfiltered	0.7	D	3	0.2
Total mercury	ng/L	unfiltered	218	E	2.6	84
Zinc	µg/L	unfiltered	23	B	107	0.2
Lake Outlet						
Conventional Analytes						
Total chloride	mg/L	unfiltered	460	C	230	2.0
Metals						
Chromium	µg/L	unfiltered	18	B, C	94.8	0.2
Methylmercury	ng/L	unfiltered	0.8	D	3	0.3
Nickel	µg/L	unfiltered	10	B, C	67	0.2
Total mercury	ng/L	unfiltered	5.6	E	2.6	2.1
Zinc	µg/L	unfiltered	14	B	107	0.1

Notes: B – NYSDEC Chronic (Aquatic Life)
C – USEPA CCC (Aquatic Life)
D – USEPA Tier II (Aquatic Life)
E – NYSDEC (Wildlife)
F – USEPA AWQC/FCV (Aquatic Life)
[a] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined

Table D-12. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Metro Discharge and Onondaga Lake Tributary Water at Base-Flow in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Metro Outfall						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	2.5E-02	A	3.68	6.8E-03
Onondaga Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Harbor Brook						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02

Table D-12. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Ley Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
East Flume						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Chlorinated Aromatic Hydrocarbons						
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Tributary 5A						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Ethylbenzene	µg/L	unfiltered	1.0	D	290	3.4E-03
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	1.0	B	5	0.2
1,2-Dichlorobenzene	µg/L	unfiltered	1.0	D	14	7.1E-02
1,3-Dichlorobenzene	µg/L	unfiltered	1.0	D	71	1.4E-02
1,4-Dichlorobenzene	µg/L	unfiltered	1.0	D	15	6.7E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	1.0	B	5	0.2
1,2,4-Trichlorobenzene	µg/L	unfiltered	1.0	D	110	9.1E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	1.0	B	5	0.2
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Bloody Brook						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Lead	µg/L	unfiltered	0.5	C	3.5	0.1
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Zinc	µg/L	unfiltered	5.4	B	107	5.0E-02

Table D-12. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Ninemile Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Copper	µg/L	unfiltered	1.0	B, C	11.6	8.6E-02
Lead	µg/L	unfiltered	0.5	C	3.5	0.1
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Sawmill Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Copper	µg/L	unfiltered	0.5	B, C	11.6	4.3E-02
Lead	µg/L	unfiltered	0.5	C	3.5	0.1
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Zinc	µg/L	unfiltered	5.5	B	107	5.1E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03

Table D-12. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	0.5	D	1.8	0.3
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Geddes Brook						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Lake Outlet						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Copper	µg/L	unfiltered	1.5	B, C	11.6	0.1
Lead	µg/L	unfiltered	0.5	C	3.5	0.1
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02

Notes: A – USEPA Chronic (Aquatic Life)
B – NYSDEC Chronic (Wildlife)
C – USEPA CCC (Aquatic Life)
D – USEPA Tier II (Aquatic Life)
E – NYSDEC (Wildlife)
F – USEPA AWQC/FCV (Aquatic Life)
MDL – maximum detection limit
[a] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined

Table D-13. Ratios of Maximum Concentrations of Detected Chemicals in Metro Discharge and Onondaga Lake Tributary Water at Intermediate-Flow in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Metro Outfall						
Conventional Analytes						
Total chloride	mg/L	unfiltered	372	C	230	1.6
Metals						
Copper	µg/L	unfiltered	4.2	B, C	11.6	0.4
Lead	µg/L	unfiltered	4.8	C	3.5	1.4
Methylmercury	ng/L	unfiltered	1.4	D	3	0.5
Total mercury	ng/L	unfiltered	23	E	2.6	8.8
Zinc	µg/L	unfiltered	40	B	107	0.4
Onondaga Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	1,040	C	230	4.5
Metals						
Chromium	µg/L	unfiltered	2.2	B, C	94.8	2.3E-02
Copper	µg/L	unfiltered	11	B, C	11.6	0.9
Lead	µg/L	unfiltered	17	C	3.5	5.0
Methylmercury	ng/L	unfiltered	1.4	D	3	0.5
Total mercury	ng/L	unfiltered	125	E	2.6	48
Zinc	µg/L	unfiltered	85	B	107	0.8
Harbor Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	293	C	230	1.3
Metals						
Chromium	µg/L	unfiltered	5.7	B, C	94.8	0.1
Copper	µg/L	unfiltered	6.7	B, C	11.6	0.6
Lead	µg/L	unfiltered	6.7	C	3.5	1.9
Methylmercury	ng/L	unfiltered	0.9	D	3	0.3
Total mercury	ng/L	unfiltered	8.6	E	2.6	3.3
Zinc	µg/L	unfiltered	29	B	107	0.3
Ley Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	386	C	230	1.7
Metals						
Chromium	µg/L	unfiltered	3.9	B, C	94.8	0.0
Copper	µg/L	unfiltered	13	B, C	11.6	1.2
Lead	µg/L	unfiltered	8.6	C	3.5	2.5
Manganese	µg/L	unfiltered	100	D	80	1.2
Methylmercury	ng/L	unfiltered	0.2	D	3	0.1
Total mercury	ng/L	unfiltered	11	E	2.6	4.1
Zinc	µg/L	unfiltered	43	B	107	0.4
East Flume						
Conventional Analytes						
Total chloride	mg/L	unfiltered	563	C	230	2.4
Metals						
Chromium	µg/L	unfiltered	8.3	B, C	94.8	0.1
Copper	µg/L	unfiltered	18	B, C	11.6	1.6
Lead	µg/L	unfiltered	28	C	3.5	8.1
Methylmercury	ng/L	unfiltered	3	D	3	0.9
Nickel	µg/L	unfiltered	9	B, C	67	0.1
Total mercury	ng/L	unfiltered	129	E	2.6	50
Zinc	µg/L	unfiltered	179	B	107	1.7

Table D-13. (cont.)

Location/Analyte	Units	Measurement Basis	Maximum Detected Value	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Volatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
1,4-Dichlorobenzene	µg/L	unfiltered	2.3	D	15	0.2
Dichlorobenzenes (Sum)	µg/L	unfiltered	2.3	B	5	0.5
1,2,4-Trichlorobenzene	µg/L	unfiltered	1.1	D	110	1.0E-02
Trichlorobenzenes (Sum)	µg/L	unfiltered	1.1	B	5	0.2
Tributary 5A						
Conventional Analytes						
Total chloride	mg/L	unfiltered	338	C	230	1.5
Metals						
Cadmium	µg/L	unfiltered	2.4	F	1.3	1.8
Chromium	µg/L	unfiltered	119	B, C	94.8	1.3
Copper	µg/L	unfiltered	30	B, C	11.6	2.6
Lead	µg/L	unfiltered	14	C	3.5	4.0
Methylmercury	ng/L	unfiltered	1.6	D	3	0.5
Nickel	µg/L	unfiltered	93	B, C	67	1.4
Total mercury	ng/L	unfiltered	90	E	2.6	35
Zinc	µg/L	unfiltered	117	B	107	1.1
Ninemile Creek						
Conventional Analytes						
Total chloride	mg/L	unfiltered	742	C	230	3.2
Metals						
Chromium	µg/L	unfiltered	12	B, C	94.8	0.1
Copper	µg/L	unfiltered	16	B, C	11.6	1.4
Lead	µg/L	unfiltered	22	C	3.5	6.1
Methylmercury	ng/L	unfiltered	1	D	3	0.3
Nickel	µg/L	unfiltered	10	B, C	67	0.1
Total mercury	ng/L	unfiltered	88	E	2.6	34
Zinc	µg/L	unfiltered	88	B	107	0.8
Geddes Brook						
Conventional Analytes						
Total chloride	mg/L	unfiltered	913	C	230	4.0
Metals						
Copper	µg/L	unfiltered	7.0	B, C	11.6	0.6
Lead	µg/L	unfiltered	5.6	C	3.5	1.6
Methylmercury	ng/L	unfiltered	1.0	D	3	0.3
Nickel	µg/L	unfiltered	5.0	B, C	67	0.1
Total mercury	ng/L	unfiltered	413	E	2.6	159
Zinc	µg/L	unfiltered	38	B	107	0.4
Lake Outlet						
Conventional Analytes						
Total chloride	mg/L	unfiltered	499	C	230	2.2
Metals						
Lead	µg/L	unfiltered	1	C	3.5	0.3
Methylmercury	ng/L	unfiltered	3	D	3	1.0
Nickel	µg/L	unfiltered	17	B, C	67	0.2
Total mercury	ng/L	unfiltered	46	E	2.6	18
Zinc	µg/L	unfiltered	13	B	107	0.1

Notes: A – USEPA Chronic (Aquatic Life)
B – NYSDEC Chronic (Wildlife)
C – USEPA CCC (Aquatic Life)
D – USEPA Tier II (Aquatic Life)
E – NYSDEC (Wildlife)
F – USEPA AWQC/FCV (Aquatic Life)

[a] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion

[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined

Table D-14. Ratios of Halved Maximum Detection Limits for Undetected Chemicals in Metro Discharge and Onondaga Lake Tributary Water at Intermediate-Flow in 1992 to Minimum Screening Values[a]

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Metro Outfall						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Nickel	µg/L	unfiltered	3.5	B, C	67	5.2E-02
Onondaga Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Harbor Brook						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.3	0.8
Nickel	µg/L	unfiltered	3.5	B, C	67	5.2E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1

Table D-14. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	2.5E-02	A	3.68	6.8E-03
Ley Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Nickel	µg/L	unfiltered	4.0	B, C	67	6.0E-02
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
East Flume						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	2.5E-02	A	3.68	6.8E-03
Tributary 5A						
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02

Table D-14. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	2.5E-02	A	3.68	6.8E-03
Ninemile Creek						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
Dichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Trichlorobenzenes (Sum)	µg/L	unfiltered	0.5	B	5	0.1
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02
Geddes Brook						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Chromium	µg/L	unfiltered	2.0	B, C	94.8	0.0
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02

Table D-14. (cont.)

Location/Analyte	Units	Measurement Basis	One-Half MDL	Source of Minimum Screening Value	Minimum Screening Value	Screening Ratio[b]
Lake Outlet						
Metals						
Cadmium	µg/L	unfiltered	1.0	F	1.42	0.7
Chromium	µg/L	unfiltered	2.0	B, C	94.8	2.1E-02
Copper	µg/L	unfiltered	2.8	B, C	11.6	0.2
Volatile Organic Compounds						
Aromatic Hydrocarbons						
Benzene	µg/L	unfiltered	0.5	D	46	1.1E-02
Toluene	µg/L	unfiltered	0.5	D	130	3.8E-03
Ethylbenzene	µg/L	unfiltered	0.5	D	290	1.7E-03
Xylene isomers (total)	µg/L	unfiltered	1.5	D	1.8	0.8
Chlorinated Aromatic Hydrocarbons						
Chlorobenzene	µg/L	unfiltered	0.5	B	5	0.1
1,2-Dichlorobenzene	µg/L	unfiltered	0.5	D	14	3.6E-02
1,3-Dichlorobenzene	µg/L	unfiltered	0.5	D	71	7.0E-03
1,4-Dichlorobenzene	µg/L	unfiltered	0.5	D	15	3.3E-02
1,2,4-Trichlorobenzene	µg/L	unfiltered	0.5	D	110	4.5E-03
Semivolatile Organic Compounds						
Chlorinated Aromatic Hydrocarbons						
Hexachlorobenzene	µg/L	unfiltered	0.3	A	3.68	6.8E-02

Notes: A - USEPA Chronic (Aquatic Life)
B – NYSDEC Chronic (Wildlife)
C – USEPA CCC (Aquatic Life)
D - USEPA Tier II (Aquatic Life)
E – NYSDEC (Wildlife)
F – USEPA AWQC/FCV (Aquatic Life)
MDL – maximum detection limit
[a] For hardness-dependent metal screening values, the minimum hardness value observed in 1992 (135 mg/L) was used to calculate the criterion
[b] Ratios are maximum detected values divided by minimum screening values. Values equal to or greater than one are outlined

Table D-96. Sediment Screening Assessment for Dioxins and Furans through Food Web Exposures for the Tree Swallow (1999–2000)

Analyte	Sediment Maximum Detected Value[a] (ng/kg dry)	NYSDEC BSAF[b]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Avian TEF	TEQ	TRV[c] (ng/kg-day)	Honeywell Screening Hazard Quotient[d]	NYSDEC Screening Hazard Quotient[d]
Dioxins/Furans									
1,2,3,4,6,7,8-Heptachlorodibenzofuran	47	0.31	21	5.1	0.01	3.52			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	18	0.35	13	3.2	0.001	2.14			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	29	0.7224	30	7.3	0.01	1.11			
1,2,3,4,7,8-Hexachlorodibenzofuran	79	0.21	24	5.8	0.1	123			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	2.8	0.51	2.1	0.5	0.05	8.31			
1,2,3,6,7,8-Hexachlorodibenzofuran	19	0.50	13	3.2	0.1	36.5			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	5.9	0.51	4.4	1.0	0.01	3.63			
1,2,3,7,8,9-Hexachlorodibenzofuran	7.4	0.35	3.8	0.9	0.1	2.46			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	5.6	0.51	4.1	1.0	0.1	19.0			
1,2,3,7,8-Pentachlorodibenzofuran	68	0.53	52	13	0.1	191			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	4.1	0.48	2.9	0.7	1	1,080			
2,3,4,6,7,8-Hexachlorodibenzofuran	7.9	0.70	8.0	1.9	0.1	9.15			
2,3,4,7,8-Pentachlorodibenzofuran	231	0.47	157	38	1	3,440			
2,3,7,8-Tetrachlorodibenzofuran	268	0.54	210	51	1	3,140			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	1.1	0.56	0.9	0.2	1	173			
Octachlorodibenzofuran	214	0.19	59	14	0.0001	0.0907			
Octachlorodibenzo-*p*-dioxin	39	0.23	13	3.1					
						8,232	14	588	588

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] BSAFs are from the US Army Corps of Engineers database or based on professional judgment
[c] TRV is for 2,3,7,8-TCDD (Nosek et al., 1992)
[d] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-97. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Tree Swallow (1999–2000)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFs[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Volatile Organic Compounds										
Halogenated Alkanes										
Chloromethane	7.5	1	11		5.0E-04	2.6	N/A	N/A	N/A	N/A
Bromomethane	7.5	1	11		5.0E-04	2.6	N/A	N/A	N/A	N/A
Chloroethane	7.5	1	11		5.0E-04	2.6	N/A	N/A	N/A	N/A
Carbon tetrachloride	7	1	10		2.5E-04	2.4	16	Alumot et al. (1976)*	N/A	0.2
1,2-Dichloropropane	7	1	10		2.5E-04	2.4	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	7	1	10		2.5E-04	2.4	1,000	Lane et al. (1982)*	N/A	2.4E-03
Bromoform	7	1	10		2.5E-04	2.4	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	7	1	10		2.5E-04	2.4	N/A	N/A	N/A	N/A
Dibromochloromethane	7	1	10		2.5E-04	2.4	N/A	N/A	N/A	N/A
Halogenated Alkenes										
Vinyl chloride	7.5	1	11		5.0E-04	2.6	0.17	Feron et al. (1981)*	N/A	15
1,1-Dichloroethene	7	1	10		2.5E-04	2.4	2.5	Quast et al. (1983)*	N/A	1.0
cis -1,3-Dichloropropene	7	1	10		2.5E-04	2.4	N/A	N/A	N/A	N/A
trans -1,2-dichloroethene	7	1	10		2.5E-04	2.4	2.5	Quast et al. (1983)*	N/A	1.0
trans -1,3-Dichloropropen	7	1	10		2.5E-04	2.4	N/A	N/A	N/A	N/A
Ketones										
2-Hexanone	15	1	21		2.5E-03	5.1	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	15	1	21		2.5E-03	5.1	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds										
Chlorinated Aromatic Hydrocarbons										
2-Chloronaphthalene	115	1	167			40	N/A	N/A	N/A	N/A
Substituted Phenols										
2-Chlorophenol	115	1	167			40	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	600	1	870			210	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	600	1	870			210	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	600	1	870			210	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	600	1	870			210	N/A	N/A	N/A	N/A
Pentachlorophenol	3,000	1	4,350			1,048	0.24	Schwetz et al. (1978)	101	4,368
2-Nitrophenol	600	1	870			210	N/A	N/A	N/A	N/A
4-Nitrophenol	3,000	1	4,350			1,048	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	3,000	1	4,350			1,048	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophen	3,000	1	4,350			1,048	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons										
Hexachloroethane	115	1	167			40	0.05	Tugarinova et al. (1960)*	N/A	804
Hexachlorobutadiene	115	1	167			40	0.2	Kociba et al. (1977)*	N/A	201
Hexachlorocyclopentadie	600	1	870			210	N/A	N/A	N/A	N/A
Halogenated Ethers										
bis[2-chloroethyl]ether	115	1	167			40	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl et	115	1	167			40	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl et	115	1	167			40	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]metha	115	1	167			40	N/A	N/A	N/A	N/A

Table D-97. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFs[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Phthalates										
Diethyl phthalate	115	1	167			40	4,580	Lamb et al. (1987)*	N/A	8.8E-03
Dimethyl phthalate	115	1	167			40	N/A	N/A	N/A	N/A
Butylbenzyl phthalate	115	1	167			40	N/A	N/A	N/A	N/A
Di-*n* -octyl phthalate	115	1	167			40	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds										
Isophorone	115	1	167			40	N/A	N/A	N/A	N/A
Benzyl alcohol	600	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Organonitrogen Compounds										
Nitrobenzene	115	1	167			40	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylam	115	1	167			40	N/A	N/A	N/A	N/A
2-Nitroaniline	235	1	341			82	N/A	N/A	N/A	N/A
3-Nitroaniline	3,000	1	4,350			1,048	N/A	N/A	N/A	N/A
4-Nitroaniline	3,000	1	4,350			1,048	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	600	1	870			210	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	600	1	870			210	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	115	1	167			40	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	115	1	167			40	N/A	N/A	N/A	N/A
N -nitroso dimethylamine	600	N/A	N/A			N/A	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls										
β-Endosulfan	5.5E-04	1	8.0E-04			1.9E-04	50	Abiola (1992)	2.6E-06	3.8E-06
Toxaphene	5.7E-02	1	8.3E-02			2.0E-02	8	Kennedy et al. (1973)*	N/A	2.5E-03
Aroclor 1016	0.8	1.48	1.6			0.4	0.18	Dahlgren et al. (1982)	0.9	2.2
Aroclor 1232	0.8	1.48	1.6			0.4	0.18	Dahlgren et al. (1982)	0.9	2.2

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
* indicates that a mammalian TRV was used for screening due to lack of an avian one
[a] BSAFs are from the US Army Corps of Engineers database or based on professional judgment
[b] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-98. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposure for the Little Brown Bat (1999–2000)

Analyte	Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFs[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Total Metals and Cyanide											
Aluminum	14,500		0.588	8,526			1,535	1.93	Ondreicka et al. (1966)	2.9	795
Antimony	5.4		0.675	3.7			0.7	0.125	Schroeder et al. (1968)	4.5	5.3
Arsenic	47		0.675	31.9			5.7	0.126	Schroeder and Mitchner (1971)	24	46
Barium	2,070		9.24	19,127			3,443	5.1	Perry et al. (1983)	6.4	675
Beryllium	0.8		0.675	0.5			0.10	0.66	Schroeder and Mitchner (1975)	0.7	0.1
Cadmium	15		9.24	138			25	1	Sutou et al. (1980)	1.1	25
Calcium	409,000		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Chromium	4,180		0.588	2,458	3.9E-03		442	3.28	Mackenzie et al. (1958)	1.1	135
Cobalt	170		3.15	536			96	5	Nation et al. (1983)	4.9	19
Copper	366		3.872	1,417			255	11.7	Aulerich et al. (1982)	8.9E-02	22
Iron	50,800		3.15	160,020	0.6		28,804	N/A	N/A	N/A	N/A
Lead	750		0.946	710	3.1E-03		128	8	Azar et al. (1973)	4.2	16
Magnesium	34,700		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Manganese	1,190		0.946	1,126	0.6		203	88	Laskey et al. (1982)	0.548	2.3
Methylmercury	10		b	2.5	1.4E-05		0.46	0.015	Wobeser et al. (1976)	26	30
Mercury	78		b	53	1.0E-04		10	1	Aulerich et al. (1974)	8.7	9.6
Nickel	1,670		3.15	5,261	4.7E-03		947	40	Ambrose et al. (1976)	0.6	24
Potassium	3,480		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Selenium	5.9		0.588	3.5			0.6	0.2	Rosenfeld and Beath (1954)	1.8	3.1
Silver	6.1		3.872	24			4.3	18.1	Walker (1971)	2.5E-02	0.2
Sodium	11,900		N/A	N/A			N/A	N/A	N/A	N/A	N/A
Thallium	2.9		0.946	2.7			0.5	0.0074	Formigli et al. (1986)	35	67
Vanadium	319		0.675	215			39	0.21	Domingo et al. (1986)	61	185
Zinc	421		8.465	3,564			641	160	Schlicker and Cox (1968)	5.7E-03	4.0
Cyanide	6.4		N/A	N/A			N/A	68.7	Tewe and Maner (1981)	N/A	N/A
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	42		1	61	6.3E-03		11.0	26	Nawrot and Staples (1979)	0.2	0.4
Toluene	8.3		1	12	1.6E-04		2.2	26	Nawrot and Staples (1979)	4.6E-02	8.3E-02
Ethylbenzene	71		1	103		2.5E-04	19	26	Nawrot and Staples (1979)	0.4	0.7
Styrene	4.8		1	7.0		2.5E-04	1.3	N/A	N/A	N/A	N/A
Xylene (m,p)	100		1	145			26	2.1	Marks et al. (1982)	–	12
Xylene (o)	23		1	33			6.0	2.1	Marks et al. (1982)	–	2.9
Xylene isomers (total)	330		1	479	3.3E-04		86	2.1	Marks et al. (1982)	1.8	41
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	1,000		3.86	5,597	1.2E-02		1,007	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	48		4.46	310	3.2E-03		56	250	Lake et al. (1997)	0.1	0.2
1,3-Dichlorobenzene	37		4.53	243			44	250	Lake et al. (1997)	9.7E-02	0.2
1,4-Dichlorobenzene	170		4.53	1,117	3.4E-03		201	250	Lake et al. (1997)	0.4	0.8
1,2,4-Trichlorobenzene	35		4.90	249			45	8	Cote et al. (1988)	2.9	5.6
Halogenated Alkanes											
Methylene chloride	8		1	12		2.2E-04	2.1	5.85	NCA (1982)	0.2	0.4
Chloroform			1		8.5E-04		1.4E-04	15	Palmer et al. (1979)	7.7E-02	9.6E-06
1,1-Dichloroethane	1.2		1	1.7		2.5E-04	0.3	50	Lane et al. (1982)	–	6.3E-03
1,2-Dichloroethane	0.1		1	0.2		2.5E-04	3.6E-02	50	Lane et al. (1982)	9.0E-04	7.2E-04
1,1,1-Trichloroethane	2.7E-03		1	3.9E-03		2.5E-04	7.5E-04	1,000	Lane et al. (1982)	–	7.5E-07
Bromodichloromethane		7.0	1	10	2.4E-04		1.8	N/A	N/A	N/A	N/A

Table D-98. (cont.)

Analyte	Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFs[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Halogenated Alkenes											
Cis-1,2-dichloroethene	2.4E-03		1	3.5E-03		2.5E-04	6.7E-04	2.5	Quast et al. (1983)	–	2.7E-04
Trichloroethene	4.0E-03		1	5.8E-03		2.5E-04	1.1E-03	0.7	Buben and O'Flaherty (1985)	–	1.6E-03
Tetrachloroethene	3.0E-03		1	4.4E-03		2.5E-04	8.3E-04	1.4	Buben and O'Flaherty (1985)	–	5.9E-04
Ketones											
Acetone	0.3		1	0.4			7.6E-02	10	USEPA (1986)	4.8E-03	7.6E-03
2-Butanone	9.4E-02		1	0.1		5.0E-03	2.5E-02	N/A	N/A	–	N/A
Miscellaneous Volatile Compounds											
Carbon disulfide	0.1		1	0.2		2.5E-04	3.7E-02	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	6.8		4.17	41			7.3	0.05	Fassbender et al. (1977)	2.9	147
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	26,000		2.637	99,415			17,895	1	Mackenzie and Angevine (1981)	N/A	17,895
Acenaphthylene	19		0.762	21			3.8	1	Mackenzie and Angevine (1981)	N/A	3.8
Acenaphthene	85		0.108	13			2.4	1	Mackenzie and Angevine (1981)	N/A	2.4
Fluorene	140		0.964	196			35	1	Mackenzie and Angevine (1981)	23	35
Phenanthrene	630		0.304	278			50	1	Mackenzie and Angevine (1981)	62	50
Anthracene	95		0.108	15			2.7	1	Mackenzie and Angevine (1981)	0.1	2.7
2-Methylnaphthalene	2,800		1	4,060			731	1	Mackenzie and Angevine (1981)	N/A	731
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	250		0.54	196			35	1	Mackenzie and Angevine (1981)	2.2	35
Pyrene	150		0.514	112			20	1	Mackenzie and Angevine (1981)	25	20
Benz[a]anthracene	100		0.336	49			8.8	1	Mackenzie and Angevine (1981)	17	8.8
Chrysene	100		0.438	64			11	1	Mackenzie and Angevine (1981)	1.4	11
Benzo[b]fluoranthene	57		0.416	34			6.2	1	Mackenzie and Angevine (1981)	N/A	6.2
Benzo[k]fluoranthene	60		0.291	25			4.6	1	Mackenzie and Angevine (1981)	N/A	4.6
Benzo[a]pyrene	65		0.223	21			3.8	1	Mackenzie and Angevine (1981)	0.2	3.8
Indeno[1,2,3-cd]pyrene	38		0.281	15			2.8	1	Mackenzie and Angevine (1981)	9.5E-02	2.8
Dibenz[a,h]anthracene	17		0.377	9.3			1.7	1	Mackenzie and Angevine (1981)	2.3E-02	1.7
Benzo[ghi]perylene	35		0.047	2.4			0.4	1	Mackenzie and Angevine (1981)	0.1	0.4
Phenols											
Phenol	2.6		1	3.8			0.7	523	NCI (1980)	1.0E-03	1.3E-03
2-Methylphenol	1.1		1	1.6			0.3	219	Hornshaw et al. (1986)	8.3E-04	1.3E-03
4-Methylphenol	2.2		1	3.2			0.6	219	Hornshaw et al. (1986)	N/A	2.6E-03
2,4-Dimethylphenol	1.0		1	1.4				N/A	N/A	–	N/A
Phthalates											
bis[2-Ethylhexyl]phthalate	5.1		1	7.4			1.3	18.3	Lamb et al. (1987)	4.6E-02	7.3E-02
Di-*n* -butyl phthalate	0.2		1	0.2				550	Lamb et al. (1987)	–	
Miscellaneous Oxygenated Compounds											
Dibenzofuran	81		1	117			21	N/A	N/A	N/A	N/A
Carbazole	19		1	28			5.0	N/A	N/A	N/A	N/A
Organonitrogen Compounds											
4-Chloroaniline	0.1		1	0.2			3.7E-02	N/A	N/A	–	N/A

Table D-98. (cont.)

Analyte	Maximum Detected Value (mg/kg dry)	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFs[a]	NYSDEC Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value (mg/L)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	1.3E-02		0.70	1.3E-02			2.4E-03	8	Palmer et al. (1978)	2.0E-03	3.0E-04
β-Hexachlorocyclohexane	9.7E-03		1.15	1.6E-02			2.9E-03	8	Palmer et al. (1978)	1.5E-03	3.6E-04
δ-Hexachlorocyclohexane	4.8E-03		1.15	8.1E-03			1.5E-03	8	Palmer et al. (1978)	4.0E-04	1.8E-04
γ-Hexachlorocyclohexane	4.2E-03		0.60	3.7E-03			6.6E-04	8	Palmer et al. (1978)	5.1E-04	8.3E-05
Aldrin	3.5E-03		8.50	4.3E-02			7.8E-03	0.2	Treon and Cleveland (1955)	4.3E-02	3.9E-02
α-Chlordane	1.5E-02		2.07	4.4E-02			8.0E-03	0.075	FAO/WHO (1983)	1.66E-05	0.1
γ-Chlordane	5.0E-02		1.212	8.9E-02			1.6E-02	0.075	FAO/WHO (1983)	5.64E-05	0.2
Chlordane isomers (sum)	5.0E-02		3.35	0.2			4.4E-02	0.075	FAO/WHO (1983)	N/A	0.6
Dieldrin	3.6E-02		8.50	0.4			7.9E-02	0.018	Harr et al. (1970)	0.3	4.4
α-Endosulfan	8.7E-03		2.7	3.4E-02			6.1E-03	0.15	Dikshith et al. (1984)	1.2E-02	4.1E-02
Endosulfan sulfate	3.1E-02		2.7	0.1			2.2E-02	0.15	Dikshith et al. (1984)	3.5E-02	0.1
Endrin	8.4E-03		0.009	1.1E-04			2.0E-05	0.065	Treon et al. (1955)	N/A	N/A
Endrin aldehyde	3.5E-03		0.009	4.5E-05			8.1E-06	0.065	Treon et al. (1955)	6.2E-03	1.3E-04
Endrin ketone	4.9E-02		0.009	6.4E-04			1.2E-04	0.065	Treon et al. (1955)	8.8E-02	1.8E-03
Heptachlor	5.3E-03		N/A	N/A			N/A	0.075	Kinoshita and Kempf (1970)	N/A	N/A
Heptachlor epoxide	5.2E-02		0.65	4.9E-02			8.8E-03	0.075	Kinoshita and Kempf (1970)	N/A	0.1
Methoxychlor	4.0E-03		1.2	7.0E-03			1.3E-03	4	Gray et al. (1988)	1.7E-04	3.2E-04
4,4'-DDD	3.9E-03		0.41	2.3E-03			4.2E-04	85	NCI (1978), as cited in ATSDR (1994	1.4E-05	4.9E-06
4,4'-DDE	2.1E-02		0.94	2.9E-02			5.3E-03	28	Gellert and Heinrich (1975), as cited in ATSDR (1994)	2.2E-04	1.9E-04
4,4'-DDT	8.8E-02		0.41	5.2E-02			9.4E-03	0.8	Fitzhugh (1948)	3.2E-02	1.2E-02
Aroclor 1221	1.6		1.48	3.3			0.6	0.01	Barsotti et al. (1976)	12	60
Aroclor 1242	19		1.48	40			7.3	0.069	Bleavins et al. (1980)	3.1	105
Aroclor 1248	0.1		1.48	0.3			4.7E-02	0.01	Barsotti et al. (1976)	10	4.7
Aroclor 1254	1.3		1.48	2.7			0.5	0.0068	McCoy et al. (1995)	0.9	72
Aroclor 1260	1.0		1.48	2.2			0.4	6.9	Linder et al. (1974)	8.9E-03	0.1
Aroclor 1268	0.2		1.48	0.4			6.6E-02	0.01	Barsotti et al. (1976)	12	6.6
PCBs (sum)	21		1.48	45			8.1	0.0068	McCoy et al. (1995)	153	1,190

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
[a] The recommendations for the Oak Ridge Reservation (USDOE, 1998) were followed for metals (90th percentile BSAFs non-depurated organisms). All other BSAFs are from the US Army Corps of Engineers database or based on professional judgment. The following BSAFs were applied for metals with no BSAFs: chromium for selenium and aluminum; arsenic for antimony, beryllium, and vanadium; cadmium for barium; and lead for manganese and thallium.
[b] Actual total and methylmercury concentrations were measured in composites of benthic macroinvertebrates. The maximum benthic sample concentrations were therefore used in this food web screening, as opposed to applying biota-sediment accumulation factors to sediment values.
[c] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-99. Sediment Screening Assessment for Dioxins and Furans through Food Web Exposures for the Little Brown Bat (1999–2000)

Analyte	Sediment Maximum Detected Value[a] (ng/kg dry)	NYSDEC BSAFs[b]	NYSDEC Food Maximum Detected Value (mg/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Mammalian TEF	TEQ	TRV[c] (ng/kg-day)	HoneywellScreening Hazard Quotient[d]	NYSDEC Screening Hazard Quotient[d]
Dioxins/Furans									
1,2,3,4,6,7,8-Heptachlorodibenzofuran	47	0.31	21	266	0.01	2.66			
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	18	0.35	13	1,615	0.01	16.15			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	29	0.7224	30	84	0.01	0.84			
1,2,3,4,7,8-Hexachlorodibenzofuran	79	0.21	24	929	0.1	92.88			
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	2.8	0.51	2.1	126	0.1	12.56			
1,2,3,6,7,8-Hexachlorodibenzofuran	19	0.50	13	275	0.1	27.54			
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	5.9	0.51	4.4	275	0.1	27.54			
1,2,3,7,8,9-Hexachlorodibenzofuran	7.4	0.35	3.8	19	0.1	1.86			
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	5.6	0.51	4.1	143	0.1	14.33			
1,2,3,7,8-Pentachlorodibenzofuran	68	0.53	52	1,442	0.05	72.09			
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	4.1	0.48	2.9	814	1	813.60			
2,3,4,6,7,8-Hexachlorodibenzofuran	7.9	0.70	8.0	69	0.1	6.92			
2,3,4,7,8-Pentachlorodibenzofuran	231	0.47	157	2,610	0.5	1305.00			
2,3,7,8-Tetrachlorodibenzofuran	268	0.54	210	2,376	0.1	237.60			
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	1.1	0.56	0.9	131	1	130.86			
Octachlorodibenzofuran	214	0.19	59	686	0.0001	0.07			
Octachlorodibenzo-*p*-dioxin	39	0.23	13	10,044	0.0001	1.00			
						2,764	1.0	2,550	2,764

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
WHO mammalian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
[b] BSAFs are from the US Army Corps of Engineers database or based on professional judgment
[c] TRV for 2,3,7,8-TCDD (Nosek et al., 1992)
[d] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-100. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Little Brown Bat (1999–2000)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFs[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Volatile Organic Compounds									
Halogenated Alkanes									
Chloromethane	7.5	1	11	5.0E-04	2.0	N/A	N/A	N/A	N/A
Bromomethane	7.5	1	11	5.0E-04	2.0	N/A	N/A	N/A	N/A
Chloroethane	7.5	1	11	5.0E-04	2.0	N/A	N/A	N/A	N/A
Carbon tetrachloride	7.0	1	10	2.5E-04	1.8	16	Alumot et al. (1976)	7.3E-02	0.1
1,2-Dichloropropane	7.0	1	10	2.5E-04	1.8	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	7.0	1	10	2.5E-04	1.8	1,000	Lane et al. (1982)	N/A	1.8E-03
Bromoform	7.0	1	10	2.5E-04	1.8	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	7.0	1	10	2.5E-04	1.8	N/A	N/A	N/A	N/A
Dibromochloromethane	7.0	1	10	2.5E-04	1.8	N/A	N/A	N/A	N/A
Halogenated Alkenes									
Vinyl chloride	7.5	1	11	5.0E-04	2.0	0.17	Feron et al. (1981)	7.3	12
1,1-Dichloroethene	7.0	1	10	2.5E-04	1.8	2.5	Quast et al. (1983)	0.5	0.7
cis -1,3-Dichloropropene	7.0	1	10	2.5E-04	1.8	N/A	N/A	N/A	N/A
trans -1,2-dichloroethene	7.0	1	10	2.5E-04	1.8	2.5	Quast et al. (1983)	N/A	0.7
trans -1,3-Dichloropropene	7.0	1	10	2.5E-04	1.8	N/A	N/A	N/A	N/A
Ketones									
2-Hexanone	15	1	21	2.5E-03	3.8	N/A	N/A	N/A	N/A
4-Methyl-2-pentanone	15	1	21	2.5E-03	3.8	N/A	N/A	N/A	N/A
Semivolatile Organic Compounds									
Chlorinated Aromatic Hydrocarbons									
2-Chloronaphthalene	115	1	167		30	N/A	N/A	N/A	N/A
Substituted Phenols									
2-Chlorophenol	115	1	167		30	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	600	1	870		157	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	600	1	870		157	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	600	1	870		157	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	600	1	870		157	N/A	N/A	N/A	N/A
Pentachlorophenol	3,000	1	4,350		783	0.24	Schwetz et al. (1978)	2,080	3,263
2-Nitrophenol	600	1	870		157	N/A	N/A	N/A	N/A
4-Nitrophenol	3,000	1	4,350		783	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	3,000	1	4,350		783	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol	3,000	1	4,350		783	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons									
Hexachloroethane	115	1	167		30	0.05	Tugarinova et al. (1960)	N/A	600
Hexachlorobutadiene	115	1	167		30	0.2	Kociba et al. (1977)	N/A	150
Hexachlorocyclopentadiene	600	1	870		157	N/A	N/A	N/A	N/A
Halogenated Ethers									
bis[2-chloroethyl]ether	115	1	167		30	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether	115	1	167		30	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether	115	1	167		30	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane	115	1	167		30	N/A	N/A	N/A	N/A

Table D-100. (cont.)

Analyte	Sediment One-Half MDL (mg/kg dry)	NYSDEC BSAFs[a]	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Phthalates									
Diethyl phthalate	115	1	167		30	4,580	Lamb et al. (1987)	4.2E-03	6.6E-03
Dimethyl phthalate	115	1	167		30	N/A	N/A	N/A	N/A
Butylbenzyl phthalate	115	1	167		30	N/A	N/A	N/A	N/A
Di-*n*-octyl phthalate	115	1	167		30	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds									
Isophorone	115	1	167		30	N/A	N/A	N/A	N/A
Benzyl alcohol	600	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Organonitrogen Compounds									
Nitrobenzene	115	1	167		30	N/A	N/A	N/A	N/A
N-nitroso-di-*n*-propylamine	115	1	167		30	N/A	N/A	N/A	N/A
2-Nitroaniline	235	1	341		61	N/A	N/A	N/A	N/A
3-Nitroaniline	3,000	1	4,350		783	N/A	N/A	N/A	N/A
4-Nitroaniline	3,000	1	4,350		783	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene	600	1	870		157	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	600	1	870		157	N/A	N/A	N/A	N/A
N-nitrosodiphenylamine	115	1	167		30	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	115	1	167		30	N/A	N/A	N/A	N/A
N-nitroso dimethylamine	600	N/A	N/A		N/A	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls									
β-Endosulfan	5.5E-04	1	8.0E-04		1.4E-04	0.15	Dikshith et al. (1984)	6.1E-04	9.6E-04
Toxaphene	5.7E-02	1	8.3E-02		1.5E-02	8	Kennedy et al. (1973)	1.2E-03	1.9E-03
Aroclor 1016	0.8	1.48	1.6		0.3	1.37	Bleavins et al. (1980)	8.7E-02	0.2
Aroclor 1232	0.8	1.48	1.6		0.3	0.01	Barsotti et al. (1976)	12	29

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
[a] BSAFs are from the US Army Corps of Engineers database or based on professional judgment
[b] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-101. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Short-Tailed Shrew (1999–2000)

Analyte	Soil Maximum Detected Value (mg/kg dry)*	Soil One-Half MDL (mg/kg dry)	NYSDEC Earthworm UF	NYSDEC Shrew Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotienth	NYSDEC Screening Hazard Quotienth
Total Metals and Cyanide											
Aluminum	23,300		0.118	2,749			838	1.93	Ondreicka et al. (1966)	250	434
Antimony	2.2		0.523	1.2			0.2	0.125	Schroeder et al. (1968)	0.5	1.7
Arsenic	18		0.523	9.6			1.7	0.126	Schroeder and Mitchner (1971)	3.3	14
Barium	390		0.160	62			16	5.1	Perry et al. (1983)	1.2	3.2
Beryllium	1.2		1.182	1.4			0.2	0.66	Schroeder and Mitchner (1975)	3.2E-02	0.3
Cadmium	14		a	394			57	1	Sutou et al. (1980)	3.9	57
Calcium	357,000		1.896	676,872			104,876	N/A	N/A	N/A	N/A
Chromium	154		3.16	487	3.9E-03		74	3.28	Mackenzie et al. (1958)	8.9	22
Cobalt	8.5		0.291	2.5			0.5	5	Nation et al. (1983)	5.3E-02	0.1
Copper	167		b	64			12	11.7	Aulerich et al. (1982)	0.3	1.1
Iron	29,600		0.078	2,309	0.6		893	N/A	N/A	N/A	N/A
Lead	259		1.522	394	3.1E-03		62	8	Azar et al. (1973)	1.1	7.8
Magnesium	19,000		0.425	8,075			1,529	N/A	N/A	N/A	N/A
Manganese	488		c	96	0.6		23	88	Laskey et al. (1982)	0.1	0.3
Methylmercury	99		d	1.5	1.4E-05		2.1	0.015	Wobeser et al. (1976)	3.7	138
Mercury	99		d	1.5	1.0E-04		2.1	1	Aulerich et al. (1974)	2.2	2.1
Nickel	64		4.73	304	4.7E-03		45	40	Ambrose et al. (1976)	0.9	1.1
Potassium	5,750		5.96	34,293			5,081	N/A	N/A	N/A	N/A
Selenium	2.5		e	4.4			0.7	0.2	Rosenfeld and Beath (1954)	1.3	3.4
Silver	2.7		15.34	41			6.1	18.1	Walker (1971)	1.5E-02	0.3
Sodium	13,000		64.503	838,539			121,833	N/A	N/A	N/A	N/A
Thallium	2.5		1.522	3.8			0.6	0.0074	Formigli et al. (1986)	14	81
Vanadium	41		0.088	3.6			1.3	0.21	Domingo et al. (1986)	4.0	6.1
Zinc	510		f	2,173			325	160	Schlicker and Cox (1968)	0.4	2.0
Cyanide	5.4		N/A	N/A			0.1	68.7	Tewe and Maner (1981)	N/A	1.5E-03
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	6.0E-02		22.2	1.3	6.3E-03		0.2	26	Nawrot and Staples (1979)	–	7.5E-03
Toluene	1.7E-03		22.2	3.8E-02	1.6E-04		5.5E-03	26	Nawrot and Staples (1979)	–	2.1E-04
Ethylbenzene	2.4E-02		22.2	0.5		2.5E-04	7.8E-02	26	Nawrot and Staples (1979)	–	3.0E-03
Styrene	5.7E-03		22.2	0.1		2.5E-04	1.8E-02	N/A	N/A	–	N/A
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	0.6		22.2	13	1.2E-02		1.9	N/A	N/A	–	N/A
1,2-Dichlorobenzene	4.9		22.2	109	3.2E-03		16	250	Lake et al. (1997)	1.3E-03	6.3E-02
1,3-Dichlorobenzene	1.4		22.2	31			4.5	250	Lake et al. (1997)	1.7E-03	1.8E-02
1,4-Dichlorobenzene	9.8		22.2	218	3.4E-03		32	250	Lake et al. (1997)	3.2E-03	0.1
1,2,4-Trichlorobenzene	6.6		22.2	145			21	8	Cote et al. (1988)	–	2.7
Halogenated Alkanes											
Methylene chloride	2.1E-03		22.2	4.7E-02		2.2E-04	6.8E-03	5.85	NCA (1982)	–	1.2E-03
Chloroform			22.2		8.5E-04		1.3E-04	15	Palmer et al. (1979)	–	8.6E-06
Ketones											
Acetone	1.6E-02		22.2	0.4			5.2E-02	10	USEPA (1986)	–	5.2E-03
2-Butanone	5.7E-03		22.2	0.1		5.0E-03	1.9E-02	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	5.4		22.2	119			17	0.05	Fassbender et al. (1977)	1.2	347
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	9.0		22.2	200			29	1	Mackenzie and Angevine (1981)	N/A	29
Acenaphthylene	7.5		22.2	167			24	1	Mackenzie and Angevine (1981)	N/A	24
Acenaphthene	6.3		22.2	140			20	1	Mackenzie and Angevine (1981)	N/A	20
Fluorene	12		22.2	266			39	1	Mackenzie and Angevine (1981)	2.6	39

Table D-101. (cont.)

Analyte	Soil Maximum Detected Value (mg/kg dry)*	Soil One-Half MDL (mg/kg dry)	NYSDEC Earthworm UF	NYSDEC Shrew Food Maximum Detected Value (mg/kg dry)	Water Maximum Detected Value (mg/L dry)	Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotienth	NYSDEC Screening Hazard Quotienth
Phenanthrene	63		22.2	1,399			204	1	Mackenzie and Angevine (1981)	31	204
Anthracene	18		22.2	400			58	1	Mackenzie and Angevine (1981)	6.1	58
2-Methylnaphthalene	5.6		22.2	124			18	1	Mackenzie and Angevine (1981)	–	18
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	86		22.2	1,909			278	1	Mackenzie and Angevine (1981)	103	278
Pyrene	83		22.2	1,843			269	1	Mackenzie and Angevine (1981)	81	269
Benz[a]anthracene	49		22.2	1,088			159	1	Mackenzie and Angevine (1981)	71	159
Chrysene	48		22.2	1,066			155	1	Mackenzie and Angevine (1981)	81	155
Benzo[b]fluoranthene	59		22.2	1,310			191	1	Mackenzie and Angevine (1981)	N/A	191
Benzo[k]fluoranthene	22		22.2	488			71	1	Mackenzie and Angevine (1981)	N/A	71
Benzo[a]pyrene	48		22.2	1,066			155	1	Mackenzie and Angevine (1981)	74	155
Indeno[1,2,3-cd]pyrene	28		22.2	622			91	1	Mackenzie and Angevine (1981)	36	91
Dibenz[a,h]anthracene	7.9		22.2	175			26	1	Mackenzie and Angevine (1981)	17	26
Benzo[ghi]perylene	28		22.2	622			91	1	Mackenzie and Angevine (1981)	36	91
Phenols											
Phenol	2.8		22.2	63			9.1	523	NCI (1980)	–	1.7E-02
4-Methylphenol	1.1		22.2	24			3.6	219	Hornshaw et al. (1986)	–	1.6E-02
Phthalates											
Di-n-butyl phthalate	0.2		22.2	4			0.6	550	Lamb et al. (1987)	6.5E-04	1.0E-03
bis[2-Ethylhexyl]phthalate	1.8		22.2	40			5.8	18.3	Lamb et al. (1987)	9.9E-02	0.3
Miscellaneous Oxygenated Compounds											
Carbazole	6.6		22.2	147			21	N/A	N/A	N/A	N/A
Dibenzofuran	7.6		22.2	169			25	N/A	N/A	–	N/A
Organonitrogen Compounds											
4-Chloroaniline	0.1		22.2	2.2			0.3	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls											
α–Hexachlorocyclohexane	2.5E-03		22.2	5.5E-02			8.0E-03	8	Palmer et al. (1978)	–	1.0E-03
β–Hexachlorocyclohexane	5.6E-03		22.2	0.1			1.8E-02	8	Palmer et al. (1978)	2.4E-03	2.3E-03
δ–Hexachlorocyclohexane	3.1E-03		22.2	7.0E-02			1.0E-02	8	Palmer et al. (1978)	–	1.3E-03
γ–Hexachlorocyclohexane	6.3E-03		22.2	0.1			2.0E-02	8	Palmer et al. (1978)	–	2.5E-03
Aldrin	4.5E-02		22.2	1.0			0.1	0.2	Treon and Cleveland (1955)	1.9E-02	0.7
α–Chlordane	1.1E-02		22.2	0.2			3.5E-02	0.075	FAO/WHO (1983)	–	0.5
γ–Chlordane	1.9E-02		22.2	0.4			6.1E-02	0.075	FAO/WHO (1983)	2.1E-03	0.8
Chlordane isomers (sum)	3.0E-02		22.2	0.7			9.6E-02	0.075	FAO/WHO (1983)	–	1.3
Dieldrin	2.4E-02		22.2	0.5			7.8E-02	0.018	Harr et al. (1970)	0.6	4.3
α–Endosulfan	1.1E-02		22.2	0.2			3.5E-02	0.15	Dikshith et al. (1984)	–	0.2
Endrin aldehyde	2.8E-03		22.2	6.2E-02			9.1E-03	0.065	Treon et al. (1955)	9.9E-02	0.1
Endrin ketone	1.7E-02		22.2	0.4			5.4E-02	0.065	Treon et al. (1955)	–	0.8
Heptachlor epoxide	1.5E-02		22.2	0.3			4.7E-02	0.075	Kinoshita and Kempf (1970)	9.9E-02	0.6
4,4'-DDD	2.0E-03		22.2	4.4E-02			6.3E-03	85	NCI (1978), as cited in ATSDR (199	6.0E-03	7.5E-05
4,4'-DDE	1.7E-02		22.2	0.4			5.5E-02	28	Gellert and Heinrich (1975), as cited in ATSDR (1994)		2.0E-03
4,4'-DDT	5.1E-02		22.2	1.1			0.2	0.8	Fitzhugh (1948)	–	0.2
Aroclor 1242	0.5		g	15			2.1	0.069	Bleavins et al. (1980)	1.0	31
Aroclor 1254	0.5		g	13			1.9	0.0068	McCoy et al. (1995)	0.8	280
Aroclor 1260	0.6		g	16			2.3	6.9	Linder et al. (1974)	5.4E-03	0.3
Aroclor 1268	0.5		g	13			1.9	0.01	Barsotti et al. (1976)	23	192
PCBs (sum)	1.1		g	34			4.9	0.0068	McCoy et al. (1995)	23	721

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value

Table D-101. (cont.)

Notes: UF – uptake factor
– indicates that a compound was not included in the Honeywell table
* Honeywell only used soil collected from dredged spoils near the lake (2000), whereas NYSDEC used both the dredged spoil data and soil collected from the wetlands near the lake (2000)
The conservative recommendations in Sample et al. (1998), Development and Validation of Bioaccumulation Models for Earthworms, were applied.
[a] ln(earthworm)=2.114+(0.795*ln[soil])
[b] ln(earthworm)=1.675+(0.264*ln[soil])
[c] ln(earthworm)=-0.809+(0.682*ln[soil])
[d] ln(earthworm)=-0.684+(0.118*ln[soil])
[e] ln(earthworm)=-0.075+(0.733*ln[soil])
[f] ln(earthworm)=4.449+(0.328*ln[soil])
[g] ln(earthworm)=1.410+(1.361*ln[soil])
The 95% UPLs for the above regressions were calculated as recommended for conservative estimates.
90th percentile UF for 2,3,7,8-TCDD (22.2) was applied to volatile organics, pesticides, etc.
[h] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-102. Soil Screening Assessment for Dioxins and Furans through Food Web Exposures for the Short-Tailed Shrew (1999–2000)

Analyte	Soil Maximum Detected Value (ng/kg dry)*,[a]	NYSDEC Earthworm UF	NYSDEC Shrew Food Maximum Detected Value (mg/kg dry)	NYSDEC EED (mg/kg BW/day)	WHO Mammalian TEF	TEQ	TRV[b] (ng/kg-day)	Honeywell Screening Hazard Quotient[c]	NYSDEC Screening Hazard Quotient[c]
Dioxins/Furans									
1,2,3,4,6,7,8-Heptachlorodibenzofuran	337	22.2	7,491	1,093	0.01	11			
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1,615	22.2	35,900	5,236	0.01	52			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	75	22.2	1,662	242	0.01	2.4			
1,2,3,4,7,8-Hexachlorodibenzofuran	464	22.2	10,303	1,503	0.1	150			
1,2,3,4,7,8-Hexachlorodibenzodioxin	298	22.2	6,613	965	0.1	96			
1,2,3,6,7,8-Hexachlorodibenzofuran	133	22.2	2,956	431	0.1	43			
1,2,3,6,7,8-Hexachlorodibenzodioxin	652	22.2	14,482	2,112	0.1	211			
1,2,3,7,8,9-Hexachlorodibenzofuran	11	22.2	253	37	0.1	3.7			
1,2,3,7,8,9-Hexachlorodibenzodioxin	340	22.2	7,558	1,102	0.1	110			
1,2,3,7,8-Pentachlorodibenzofuran	475	22.2	10,559	1,540	0.05	77			
1,2,3,7,8-Pentachlorodibenzodioxin	348	22.2	7,736	1,128	1	1,128			
2,3,4,6,7,8-Hexachlorodibenzofuran	43	22.2	963	140	0.1	14			
2,3,4,7,8-Pentachlorodibenzofuran	711	22.2	15,794	2,303	0.5	1,152			
2,3,7,8-Tetrachlorodibenzofuran	879	22.2	19,539	2,850	0.1	285			
2,3,7,8-Tetra-chlorodibenzo-dioxin	56	22.2	1,246	182	1	182			
Octachlorodibenzofuran	704	22.2	15,638	2,281	0.0001	0.2			
Octachlorodibenzodioxin	2,360	22.2	52,460	7,651	0.0001	0.8			
						3,519	1.0	891	3,519

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
UF – uptake factor
* Honeywell only used soil collected from dredged spoils near the lake (2000), whereas NYSDEC used both the dredge spoil data and soil collected from the wetland
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
90th percentile UF for 2,3,7,8-TCDD (22.2) was applied to volatile organics, pesticides, etc. (Sample et al. 1998)
[b] TRV for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined
WHO mammalian TEFs (van den Berg et al., 1998) were applied to the food ingestion rates to yield a TEQ.
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-103. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Short-tailed Shrew (1999–2000)

Analyte	Soil Maximum Detected Value (mg/kg dry)*	Soil One-Half MDL (mg/kg dry)	NYSDEC Earthworm Bioaccumulation Factor	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Volatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Xylene (m,p)		1.8E-02	22.2	0.4			5.8E-02	2.1	Marks et al. (1982)	0.1	2.8E-02
Xylene (o)		7.5E-03	22.2	0.2			2.4E-02	2.1	Marks et al. (1982)	–	1.2E-02
Xylene (Total)		7.5E-03	22.2	0.2	0.3		7.0E-02	2.1	Marks et al. (1982)	–	3.3E-02
Halogenated Alkanes											
Chloromethane		7.5E-03	22.2	0.2		5.0E-04	2.4E-02	N/A	N/A	–	N/A
Bromomethane		7.5E-03	22.2	0.2		5.0E-04	2.4E-02	N/A	N/A	–	N/A
Chloroethane		7.5E-03	22.2	0.2		5.0E-04	2.4E-02	N/A	N/A	–	N/A
1,1-Dichloroethane		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	50	Lane et al. (1982)	–	4.9E-04
Chloroform		7.5E-03	22.2	0.2	8.5E-04		2.4E-02	15	Palmer et al. (1979)	–	1.6E-03
1,2-Dichloroethane		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	50	Lane et al. (1982)	–	4.9E-04
1,1,1-Trichloroethane		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	1,000	Lane et al. (1982)	–	2.4E-05
Carbon Tetrachloride		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	16	Alumot et al. (1976)	–	1.5E-03
Bromodichloromethane		7.5E-03	22.2	0.2	2.4E-04		2.4E-02	N/A	N/A	–	N/A
1,2-Dichloropropane		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	N/A	N/A	–	N/A
Dibromochloromethane		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	N/A	N/A	–	N/A
1,1,2-Trichloroethane		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	1,000	Lane et al. (1982)	–	2.4E-05
Bromoform		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	N/A	N/A	–	N/A
1,1,2,2-Tetrachloroethane		7.5E-03	22.2	0.2		2.5E-04	2.4E-02	N/A	N/A	–	N/A
Halogenated Alkenes											
Vinyl chloride		7.5E-03	22.2	0.2		5.0E-04	2.4E-02	0.17	Feron et al. (1981)	–	0.1
1,1-Dichloroethene		7.5E-03	22.2	0.2		2.5E-03	2.5E-02	2.5	Quast et al. (1983)	–	9.9E-03
Cis-1,2-dichloroethene		7.5E-03	22.2	0.2		2.5E-03	2.5E-02	2.5	Quast et al. (1983)	–	9.9E-03
trans-1,2-Dichloroethene		7.5E-03	22.2	0.2		2.5E-03	2.5E-02	2.5	Quast et al. (1983)	–	9.9E-03
Cis-1,3-dichloropropene		7.5E-03	22.2	0.2		2.5E-03	2.5E-02	N/A	N/A	–	N/A
Trans-1,3-dichloropropene		7.5E-03	22.2	0.2		2.5E-03	2.5E-02	N/A	N/A	–	N/A
Trichloroethene		7.5E-03	22.2	0.2		2.5E-03	2.5E-02	0.7	Buben and O'Flaherty (1985	–	3.5E-02
Tetrachloroethene		7.5E-03	22.2	0.2		2.5E-03	2.5E-02	1.4	Buben and O'Flaherty (1985	–	1.8E-02
Ketones											
2-Hexanone		1.5E-02	22.2	0.3		2.5E-03	4.9E-02	N/A	N/A	–	N/A
4-Methyl-2-pentanone		1.5E-02	22.2	0.3		2.5E-03	4.9E-02	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
2-Chloronaphthalene		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
Phenols											
2-Methylphenol		0.4	22.2	9.2			1.3	219	Hornshaw et al. (1986)	3.7E-03	6.1E-03
2,4-Dimethylphenol		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
Substituted Phenols											
2-Chlorophenol		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
2,4-Dichlorophenol		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
Pentachlorophenol		11	22.2	233			34	0.24	Schwetz et al. (1978)	88	142
2-Nitrophenol		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
4-Nitrophenol		11	22.2	233			34	N/A	N/A	N/A	N/A
2,4-Dinitrophenol		11	22.2	233			34	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol		11	22.2	233			34	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane		0.4	22.2	9.2			1.3	0.05	Tugarinova et al. (1960)	N/A	27
Hexachlorobutadiene		0.4	22.2	9.2			1.3	0.2	Kociba et al. (1977)	N/A	6.7
Hexachlorocyclopentadiene		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A

Table D-103. (cont.)

Analyte	Soil Maximum Detected Value (mg/kg dry)*	Soil One-Half MDL (mg/kg dry)	NYSDEC Earthworm Bioaccumulation Factor	NYSDEC Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[b]	NYSDEC Screening Hazard Quotient[b]
Halogenated Ethers											
bis[2-chloroethyl]ether		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)		0.4	22.2	9.2			1.3	N/A	N/A	–	N/A
Phthalates											
Dimethyl phthalate		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
Diethyl phthalate		0.4	22.2	9.2			1.3	4,580	Lamb et al. (1987)	1.8E-04	2.9E-04
Butylbenzyl phthalate		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
Di-*n* -octyl phthalate		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds											
Isophorone		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
Benzyl alcohol		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
Organonitrogen Compounds											
Nitrobenzene		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylamine		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
2-Nitroaniline		0.9	22.2	19			2.8	N/A	N/A	N/A	N/A
3-Nitroaniline		11	22.2	233			34	N/A	N/A	N/A	N/A
4-Nitroaniline		11	22.2	233			34	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
N -nitrosodiphenylamine		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine		0.4	22.2	9.2			1.3	N/A	N/A	N/A	N/A
N -nitroso dimethylamine		2.2	22.2	48			7.0	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls											
β-Endosulfan		5.5E-04	22.2	1.2E-02			1.8E-03	0.15	Dikshith et al. (1984)	–	1.2E-02
Endrin		5.5E-04	22.2	1.2E-02			1.8E-03	0.065	Treon et al. (1955)	–	2.7E-02
Heptachlor		5.5E-04	22.2	1.2E-02			1.8E-03	0.075	Kinoshita and Kempf (1970)	1.7E-02	2.4E-02
Methoxychlor		5.5E-04	22.2	1.2E-02			1.8E-03	4	Gray et al. (1988)	–	4.4E-04
Toxaphene		5.5E-02	22.2	1.2			0.2	8	Kennedy et al. (1973)	2.2E-02	2.2E-02
Aroclor 1016		4.0E-02	a	1.8			0.3	1.37	Bleavins et al. (1980)	3.5E-03	0.2
Aroclor 1221		4.0E-02	a	1.8			0.3	0.01	Barsotti et al. (1976)	0.5	26
Aroclor 1232		4.0E-02	a	1.8			0.3	0.01	Barsotti et al. (1976)	0.5	26
Aroclor 1248		4.0E-02	a	1.8			0.3	0.01	Barsotti et al. (1976)	0.5	26

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
– indicates that a compound was not included in the Honeywell table
* Honeywell only used soil collected from dredged spoils near the lake (2000); NYSDEC used both the dredge spoil data and soil collected from the wetlands near the lake (2000)
Recommendations in Sample et al. (1998), Development and Validation of Bioaccumulation Models for Earthworms, were used to derive UFs
90th percentile UF for 2,3,7,8-TCDD (22.2) was applied to volatile organics, pesticides, etc.
[a] ln(earthworm)=1.41+(1.361*ln[soil]).
[b] TRV for 2,3,7,8-TCDD (Nosek et al., 1992)
[c] Hazard quotients equal to or greater than one are outlined.
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-104. Screening Risk Assessment for Detected Contaminants of Concern through Food Web Exposures for the Red-Tailed Hawk (1999–2000)

Analyte	Soil Maximum Detected Value (mg/kg	Soil One-Half MDL (mg/kg dry)	NYSDEC Small Mammal UF	NYSDEC Hawk Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[j]	NYSDEC Screening Hazard Quotient[j]
Total Metals and Cyanide											
Aluminum	23,300		0.093	2,167			145	110	Carriere et al. (1986)	0.6	1.3
Antimony	2.2		a	0.2			1.1E-02	1,400	Damron and Wilson (1975)	1.9E-06	8.0E-06
Arsenic	18		a	0.8			6.3E-02	2.46	USFWS (1964)	9.2E-03	2.5E-02
Barium	390		0.1121	44			2.8	20.8	Johnson et al. (1960)	5.1E-02	0.1
Beryllium	1.2		0.1121	0.1			8.7E-03	0.66	Schroeder and Mitchner (1975)*	N/A	N/A
Cadmium	14		b	3.0			0.2	1.45	White and Finley (1978)	0.3	0.1
Calcium	357,000		9.72	3,468,969			191,186	N/A	N/A	N/A	N/A
Chromium	154		c	40	3.9E-03		2.3	1	Haseltine et al. (nd)	0.3	2.3
Cobalt	8.5		0.1	0.9			5.6E-02	5	Nation et al. (1983)*	N/A	1.1E-02
Copper	167		d	37			2.2	47	Mehring et al. (1960)	2.2E-02	4.7E-02
Iron	29,600		e	523	0.6		61.339	N/A	N/A	N/A	N/A
Lead	259		f	36	3.1E-03		2.3	1.13	Edens et al. (1976)	1.0	2.0
Magnesium	19,000		0.743	14,117			797.335	N/A	N/A	N/A	N/A
Manganese	488		0.0370	18	0.6		1.6	977	Laskey and Edens (1985)	1.3E-03	1.6E-03
Methylmercury	99		0.192	19	1.4E-05		1.2	0.0064	Heinz (1979)	0.3	180
Mercury	99		0.192	19	1.0E-04		1.2	0.45	Hill and Schaffner (1976)	0.9	2.6
Nickel	64		g	17	4.7E-03		1.0	77.4	Cain and Pafford (1981)	4.4E-03	1.3E-02
Potassium	5,750		5.25	30,205			1,668	N/A	N/A	N/A	N/A
Selenium	2.5		h	3.2			0.2	0.4	Heinz et al. (1989)	0.1	0.4
Silver	2.7		0.81	2.2			0.1	18.1	Walker (1971)*	N/A	6.8E-03
Sodium	13,000		80.1	1,041,365			57,289	N/A	N/A	N/A	N/A
Thallium	2.5		0.123	0.3			2.0E-02	0.237	Hudson et al. (1984)	2.4E-02	8.3E-02
Vanadium	41		0.01311	0.5			0.1	11.4	White and Dieter (1978)	8.2E-03	6.5E-03
Zinc	510		i	243			14	14.5	Stahl et al. (1990)	6.5E-02	1.0
Cyanide	5.4		N/A	N/A			5.9E-03	68.7	Tewe and Maner (1981)*	N/A	8.6E-05
Volatile Organic Compounds											
Aromatic Hydrocarbons											
Benzene	6.0E-02		2.2	0.1	6.3E-03		7.7E-03	N/A	N/A	–	N/A
Toluene	1.7E-03		2.2	3.7E-03	1.6E-04		2.2E-04	26	Nawrot and Staples (1979)*	–	8.3E-06
Ethylbenzene	2.4E-02		2.2	5.3E-02		2.5E-04	2.9E-03	N/A	N/A	–	N/A
Styrene	5.7E-03		2.2	1.2E-02		2.5E-04	6.9E-04	N/A	N/A	–	N/A
Chlorinated Aromatic Hydrocarbons											
Chlorobenzene	0.6		2.2	1.32	1.2E-02		7.4E-02	N/A	N/A	–	N/A
1,2-Dichlorobenzene	4.9		2.2	11	3.2E-03		0.6	6	Jori et al. (1982)	1.6E-03	0.1
1,3-Dichlorobenzene	1.4		2.2	3.04			0.2	6	Jori et al. (1982)	2.1E-03	2.8E-02
1,4-Dichlorobenzene	9.8		2.2	22	3.4E-03		1.2	6	Jori et al. (1982)	4.1E-03	0.2
1,2,4-Trichlorobenzene	6.6		2.2	14.41			0.8	8	Cote et al. (1988)*	–	9.9E-02
Halogenated Alkanes											
Methylene chloride	2.1E-03		2.2	4.6E-03		2.2E-04	2.6E-04	5.85	NCA (1982)*	–	4.4E-05
Chloroform			22.2		8.5E-04		4.8E-05	15	Palmer et al. (1979)*	–	3.2E-06
Ketones											
Acetone	1.6E-02		2.2	3.5E-02			2.0E-03	10	USEPA (1986)*	–	2.0E-04
2-Butanone	5.7E-03		2.2	1.3E-02		5.0E-03	7.0E-04	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Hexachlorobenzene	5.4		2.2	12			0.7	0.2	Vos et al. (1971)	9.0E-02	3.3
Low Molecular Weight Polycyclic Aromatic Hydrocarbons											
Naphthalene	9.0		2.2	20			1.1	1	Hough et al. (1993)	N/A	1.1
Acenaphthylene	7.5		2.2	17			0.9	1	Hough et al. (1993)	N/A	0.9
Acenaphthene	6.3		2.2	14			0.8	1	Hough et al. (1993)	N/A	0.8
Fluorene	12		2.2	26			1.5	1	Hough et al. (1993)	7.8E-02	1.5
Phenanthrene	63		2.2	139			7.7	1	Hough et al. (1993)	0.9	7.7
Anthracene	18		2.2	40			2.2	1	Hough et al. (1993)	0.2	2.2
2-Methylnaphthalene	5.6		2.2	12			0.7	1	Hough et al. (1993)	–	0.7

Table D-104. (cont.)

Analyte	Soil Maximum Detected Value (mg/kg	Soil One-Half MDL (mg/kg dry)	NYSDEC Small Mammal UF	NYSDEC Hawk Food Maximum Detected Value (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL (mg/L)	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[j]	NYSDEC Screening Hazard Quotient[j]
High Molecular Weight Polycyclic Aromatic Hydrocarbons											
Fluoranthene	86		2.2	189			11	1	Hough et al. (1993)	3.1	11
Pyrene	83		2.2	183			10	1	Hough et al. (1993)	2.4	10
Benz[a]anthracene	49		2.2	108			6.0	1	Hough et al. (1993)	2.2	6.0
Chrysene	48		2.2	106			5.9	1	Hough et al. (1993)	2.4	5.9
Benzo[b]fluoranthene	59		2.2	130			7.2	1	Hough et al. (1993)	N/A	7.2
Benzo[k]fluoranthene	22		2.2	48			2.7	1	Hough et al. (1993)	N/A	2.7
Benzo[a]pyrene	48		2.2	106			5.9	1	Hough et al. (1993)	2.2	5.9
Indeno[1,2,3-cd]pyrene	28		2.2	62			3.4	1	Hough et al. (1993)	1.1	3.4
Dibenz[a,h]anthracene	7.9		2.2	17			1.0	1	Hough et al. (1993)	0.5	1.0
Benzo[ghi]perylene	28		2.2	62			3.4	1	Hough et al. (1993)	1.1	3.4
Phenols											
Phenol	2.8		2.2	6.2			0.3	6	Schafer et al. (1983)	–	0.1
4-Methylphenol	1.1		2.2	2.4			0.1	219	Hornshaw et al. (1986)*	–	6.1E-04
Phthalates											
Di-*n* -butyl phthalate	0.2		2.2	0.4			2.1E-02	0.11	Peakall (1974)	8.7E-03	0.2
bis[2-Ethylhexyl]phthalate	1.8		2.2	4			0.2	1.1	Peakall (1974)	4.4E-02	0.2
Miscellaneous Oxygenated Compounds											
Carbazole	6.6		2.2	15			0.8	N/A	N/A	N/A	N/A
Dibenzofuran	7.6		2.2	17			0.9	N/A	N/A	–	N/A
Organonitrogen Compounds											
4-Chloroaniline	0.1		2.2	0.2			1.2E-02	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls											
α-Hexachlorocyclohexane	2.5E-03		2.2	5.5E-03			3.0E-04	0.02	Sauter and Steele (1972)	–	1.5E-02
β-Hexachlorocyclohexane	5.6E-03		2.2	1.2E-02			6.9E-04	0.02	Sauter and Steele (1972)	1.6E-04	3.4E-02
δ-Hexachlorocyclohexane	3.1E-03		2.2	6.9E-03			3.8E-04	0.02	Sauter and Steele (1972)	–	1.9E-02
γ-Hexachlorocyclohexane	6.3E-03		2.2	1.4E-02			7.6E-04	0.02	Sauter and Steele (1972)	–	3.8E-02
Aldrin	4.5E-02		2.2	0.1			5.5E-03	0.77	Mendenhall et al. (1983)	1.5E-04	7.2E-03
α-Chlordane	1.1E-02		2.2	2.4E-02			1.3E-03	2.4	Stickel et al. (1983)	–	5.5E-04
γ-Chlordane	1.9E-02		2.2	4.1E-02			2.3E-03	2.4	Stickel et al. (1983)	1.2E-04	9.6E-04
Chlordane isomers (sum)	3.0E-02		2.2	6.5E-02			3.6E-03	2.4	Stickel et al. (1983)	–	1.5E-03
Dieldrin	2.4E-02		2.2	5.3E-02			2.9E-03	0.077	Mendenhall et al. (1983)	4.8E-03	3.8E-02
α-Endosulfan	1.1E-02		2.2	2.4E-02			1.3E-03	50	Abiola (1992)	–	2.7E-05
Endrin aldehyde	2.8E-03		2.2	6.2E-03			3.4E-04	0.01	Fleming et al. (1982)	2.7E-02	3.4E-02
Endrin ketone	1.7E-02		2.2	3.7E-02			2.1E-03	0.01	Fleming et al. (1982)	–	0.2
Heptachlor epoxide	1.5E-02		2.2	3.2E-02			1.8E-03	0.005	WHO (1984)	7.5E-02	0.4
4,4'-DDT	2.0E-03		2.2	4.3E-03			2.4E-04	0.0028	Anderson et al. (1975)	1.6E-02	8.5E-02
4,4'-DDE	1.7E-02		2.2	3.8E-02			2.1E-03	0.038	Mendenhall et al. (1983), as cited in WHO (1989)	–	5.5E-02
4,4'-DDT	5.1E-02		2.2	0.1			6.2E-03	0.0028	Anderson et al. (1975)	–	2.2
Aroclor 1242	0.5		2.2	1.2			6.6E-02	0.41	McLane and Hughes (1980)	4.6E-02	0.2
Aroclor 1254	0.5		2.2	1.1			5.9E-02	0.18	Dahlgren et al. (1982)	0.2	0.3
Aroclor 1260	0.6		2.2	1.3			7.0E-02	33.3	Call and Harrell (1974)	3.7E-04	2.1E-03
Aroclor 1268	0.5		2.2	1.1			5.9E-02	0.18	Dahlgren et al. (1982)	0.3	0.3
PCBs (sum)	1.1		2.2	2.4			0.1	0.18	Dahlgren et al. (1982)	–	0.7

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
UF – uptake factor
* indicates that a mammalian TRV was used for screening due to lack of an avian one
** Honeywell only used soil collected from dredged spoils near the lake (2000), whereas NYSDEC used both the dredge spoil data and soil collected from the wetlands near the lake (2000)
– indicates that a compound was not included in the Honeywell table
The conservative recommendations in Sample et al. (1998), Development and Validation of Bioaccumulation Models for Small Mammals, were applied.
90th percentile UF for 2,3,7,8-TCDD omnivore level (2.2) was applied to volatile organics, pesticides, PCBs, etc.

Table D-104. (cont.)

Notes: [a] ln(small mammal)= -4.5796+(0.7354*ln[soil])
[b] ln(small mammal)= -1.5383+(0.5660*ln[soil])
[c] ln(small mammal)=-1.4945+(0.7326*ln[soil])
[d] ln(small mammal)=1.4592+(0.2681*ln[soil])
[e] ln(small mammal)=-0.2879+(0.5969*ln[soil])
[f] ln(small mammal)=0.0761+(0.4422*ln[soil])
[g] ln(small mammal)=-0.2462+(0.4658*ln[soil])
[h] ln(small mammal)=-0.4158+(0.3764*ln[soil])
[i] ln(small mammal)=4.4713+(0.0738*ln[soil])
The 95% UPLs for the above regressions were calculated as recommended for conservative estimates
[j] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-105. Soil Screening Assessment for Dioxins and Furans through Food Web Exposures for the Red-Tailed Hawk (1999–2000)

Analyte	Soil Maximum Detected Value (ng/kg dry)*,[a]	NYSDEC Small Mammal UF	NYSDEC Hawk Food Maximum Detected Value (mg/kg dry)	NYSDEC EED (ng/kg BW/day)	WHO Avian TEF	TEQ	TRV[c] (ng/kg-day)	Honeywell Screening Hazard Quotient[d]	NYSDEC Screening Hazard Quotient[d]
Dioxins/Furans									
1,2,3,4,6,7,8-Heptachlorodibenzofuran	337	0.157	53	3.3	0.01	3.3E-02			
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	1,615	b	87,032	4,789	0.001	4.8			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	75	0.157	12	0.7	0.01	7.3E-03			
1,2,3,4,7,8-Hexachlorodibenzofuran	464	0.157	73	4.5	0.1	0.5			
1,2,3,4,7,8-Hexachlorodibenzodioxin	298	b	13,605	749	0.05	37			
1,2,3,6,7,8-Hexachlorodibenzofuran	133	0.157	21	1.3	0.1	0.1			
1,2,3,6,7,8-Hexachlorodibenzodioxin	652	b	32,149	1,769	0.01	18			
1,2,3,7,8,9-Hexachlorodibenzofuran	11	0.157	1.8	0.1	0.1	1.1E-02			
1,2,3,7,8,9-Hexachlorodibenzodioxin	340	b	15,751	867	0.1	87			
1,2,3,7,8-Pentachlorodibenzofuran	475	0.157	75	4.6	0.10	0.5			
1,2,3,7,8-Pentachlorodibenzodioxin	348	b	16,158	889	1	889			
2,3,4,6,7,8-Hexachlorodibenzofuran	43	0.157	6.8	0.4	0.1	4.2E-02			
2,3,4,7,8-Pentachlorodibenzofuran	711	0.157	112	6.9	1	6.9			
2,3,7,8-Tetrachlorodibenzofuran	879	0.157	138	8.6	1.0	8.6			
2,3,7,8-Tetrachlorodibenzodioxin	56	b	2,180	120	1	120			
Octachlorodibenzofuran	704	0.157	110	914	0.0001	9.1E-02			
Octachlorodibenzodioxin	2,360	0.157	371	278	0.0001	2.8E-02			
						1,172	14	2.3	84

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TEF – toxicity equivalence factor
TEQ – toxicity equivalent
TRV – toxicity reference value
WHO avian TEFs (van Leeuwan, 1997) were applied to the food ingestion rates to yield a TEQ
* Honeywell only used soil collected from dredged spoils near the lake (2000), whereas NYSDEC used both the dredge spoil data and soil collected from the wetlands near the lake (2000)
[a] Values are from the sample with the highest total TEQ, and therefore do not include all dioxins and furans
The recommendation (in Sample et al., 1998) for conservative estimates for tetrachlorodibenzo-furan was applied to all furans
[b] The recommendation (in Sample et al., 1998) for conservative estimates for tetrachlorodibenzo-p-dioxin (LN[wholebody]= 0.8113+1.0993(LN[soil concentration]) was applied to all dioxins
[c] TRV for 2,3,7,8-TCDD (Nosek et al., 1992)
[d] Hazard quotients equal to or greater than one are outlined
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)

Table D-106. Screening Risk Assessment for Undetected Contaminants of Concern through Food Web Exposures for the Red-Tailed Hawk (1999–2000)

Analyte	Soil Maximum Detected Value** (mg/kg dry)	Soil One-Half MDL (mg/kg dry)	Small Mammal Bioaccumulation Factor	NYSDEC Hawk Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Volatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
Xylene (m,p)		1.8E-02	2.2	4.0E-02			2.2E-03	2.1	Marks et al. (1982)*	–	1.0E-03
Xylene (o)		7.5E-03	2.2	1.7E-02			9.2E-04	2.1	Marks et al. (1982)*	–	4.4E-04
Xylene (Total)		7.5E-03	2.2	1.7E-02	0.3		1.8E-02	2.1	Marks et al. (1982)*	–	8.4E-03
Halogenated Alkanes											
Chloromethane		7.5E-03	2.2	1.7E-02		5.0E-04	9.4E-04	N/A	N/A	–	N/A
Bromomethane		7.5E-03	2.2	1.7E-02		5.0E-04	9.4E-04	N/A	N/A	–	N/A
Chloroethane		7.5E-03	2.2	1.7E-02		5.0E-04	9.4E-04	N/A	N/A	–	N/A
1,1-Dichloroethane		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	17.2	Almut et al. (1976)	–	5.4E-05
Chloroform		7.5E-03	2.2	1.7E-02	8.5E-04		9.6E-04	15	Palmer et al. (1979)*	–	6.4E-05
1,2-Dichloroethane		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	17.2	Almut et al. (1976)	–	5.4E-05
1,1,1-Trichloroethane		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	1,000	Lane et al. (1982)*	–	9.3E-07
Carbon Tetrachloride		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	16	Alumot et al. (1976)*	–	5.8E-05
Bromodichloromethane		7.5E-03	2.2	1.7E-02	2.4E-04		9.3E-04	N/A	N/A	–	N/A
1,2-Dichloropropane		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	N/A	N/A	–	N/A
Dibromochloromethane		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	N/A	N/A	–	N/A
1,1,2-Trichloroethane		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	1,000	Lane et al. (1982)*	–	9.3E-07
Bromoform		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	N/A	N/A	–	N/A
1,1,2,2-Tetrachloroethane		7.5E-03	2.2	1.7E-02		2.5E-04	9.3E-04	N/A	N/A	–	N/A
Halogenated Alkenes											
Vinyl chloride		7.5E-03	2.2	1.7E-02		5.0E-04	9.4E-04	0.17	Feron et al. (1981)*	–	5.6E-03
1,1-Dichloroethene		7.5E-03	2.2	1.7E-02		2.5E-03	1.1E-03	2.5	Quast et al. (1983)*	–	4.2E-04
Cis-1,2-dichloroethene		7.5E-03	2.2	1.7E-02		2.5E-03	1.1E-03	2.5	Quast et al. (1983)*	–	4.2E-04
trans-1,2-Dichloroethene		7.5E-03	2.2	1.7E-02		2.5E-03	1.1E-03	2.5	Quast et al. (1983)*	–	4.2E-04
Cis-1,3-dichloropropene		7.5E-03	2.2	1.7E-02		2.5E-03	1.1E-03	N/A	N/A	–	N/A
Trans-1,3-dichloropropene		7.5E-03	2.2	1.7E-02		2.5E-03	1.1E-03	N/A	N/A	–	N/A
Trichloroethene		7.5E-03	2.2	1.7E-02		2.5E-03	1.1E-03	0.7	Buben and O'Flaherty (1985)*	–	1.5E-03
Tetrachloroethene		7.5E-03	2.2	1.7E-02		2.5E-03	1.1E-03	1.4	Buben and O'Flaherty (1985)*	–	7.5E-04
Ketones											
2-Hexanone		1.5E-02	2.2	3.3E-02		2.5E-03	2.0E-03	N/A	N/A	–	N/A
4-Methyl-2-pentanone		1.5E-02	2.2	3.3E-02		2.5E-03	2.0E-03	N/A	N/A	–	N/A
Semivolatile Organic Compounds											
Chlorinated Aromatic Hydrocarbons											
2-Chloronaphthalene		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
Phenols											
2-Methylphenol		0.4	2.2	0.9			5.1E-02	219	Hornshaw et al. (1986)*	N/A	2.3E-04
2,4-Dimethylphenol		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
Substituted Phenols											
2-Chlorophenol		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
2,4-Dichlorophenol		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
Pentachlorophenol		11	2.2	23			1.3	0.24	Schwetz et al. (1978)	9.0E-02	5.3
2-Nitrophenol		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
4-Nitrophenol		11	2.2	23			1.3	N/A	N/A	N/A	N/A
2,4-Dinitrophenol		11	2.2	23			1.3	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol		11	2.2	23			1.3	N/A	N/A	N/A	N/A
Chlorinated Aliphatic Hydrocarbons											
Hexachloroethane		0.4	2.2	0.9			5.1E-02	0.05	Tugarinova et al. (1960)*	N/A	1.0
Hexachlorobutadiene		0.4	2.2	0.9			5.1E-02	0.2	Kociba et al. (1977)*	N/A	0.3
Hexachlorocyclopentadiene		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A

Table D-106. (cont.)

Analyte	Soil Maximum Detected Value** (mg/kg dry)	Soil One-Half MDL (mg/kg dry)	Small Mammal Bioaccumulation Factor	NYSDEC Hawk Food One-Half MDL (mg/kg dry)	Surface Water Maximum Detected Value	Surface Water One-Half MDL	NYSDEC EED (mg/kg BW/day)	TRV	Reference	Honeywell Screening Hazard Quotient[a]	NYSDEC Screening Hazard Quotient[a]
Halogenated Ethers											
bis[2-chloroethyl]ether		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
4-Chlorophenyl-phenyl ether		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
4-Bromophenyl-phenyl ether		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
bis[2-chloroethoxy]methane		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
2,2'-Oxybis(1-chloropropane)		0.4	2.2	0.9				N/A	N/A	–	
Phthalates											
Dimethyl phthalate		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
Diethyl phthalate		0.4	2.2	0.9			5.1E-02	4,580	Lamb et al. (1987)*	N/A	1.1E-05
Butylbenzyl phthalate		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
Di-*n* -octyl phthalate		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
Miscellaneous Oxygenated Compounds											
Isophorone		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
Benzyl alcohol		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
Organonitrogen Compounds											
Nitrobenzene		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
N -nitroso-di-*n* -propylamine		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
2-Nitroaniline		0.9	2.2	1.9			0.1	N/A	N/A	N/A	N/A
3-Nitroaniline		11	2.2	23			1.3	N/A	N/A	N/A	N/A
4-Nitroaniline		11	2.2	23			1.3	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
N -nitrosodiphenylamine		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine		0.4	2.2	0.9			5.1E-02	N/A	N/A	N/A	N/A
N -nitroso dimethylamine		2.2	2.2	4.7			0.3	N/A	N/A	N/A	N/A
Pesticides/Polychlorinated Biphenyls											
β-Endosulfan		5.5E-04	2.2	1.2E-03			6.7E-05	50	Abiola (1992)	–	1.3E-06
Endrin		5.5E-04	2.2	1.2E-03			6.7E-05	0.01	Fleming et al. (1982)	–	6.7E-03
Heptachlor		5.5E-04	2.2	1.2E-03			6.7E-05	0.05	Wagstaff et al. (1980)	2.0E-06	1.3E-03
Methoxychlor		5.5E-04	2.2	1.2E-03			6.7E-05	2	Hudson et al. (1984)	–	3.3E-05
Toxaphene		5.5E-02	2.2	0.1			6.7E-03	8	Kennedy et al. (1973)*	N/A	8.3E-04
Aroclor 1016		4.0E-02	2.2	8.8E-02			4.9E-03	0.18	Dahlgren et al. (1982)	1.5E-02	2.7E-02
Aroclor 1221		4.0E-02	2.2	8.8E-02			4.9E-03	0.18	Dahlgren et al. (1982)	1.5E-02	2.7E-02
Aroclor 1232		4.0E-02	2.2	8.8E-02			4.9E-03	0.18	Dahlgren et al. (1982)	1.5E-02	2.7E-02
Aroclor 1248		4.0E-02	2.2	8.8E-02			4.9E-03	0.18	Dahlgren et al. (1982)	1.5E-02	2.7E-02

Notes: EED – estimated environmental dose
MDL – maximum detection limit
TRV – toxicity reference value
UF – uptake factor
* indicates that a mammalian TRV was used for screening due to lack of an avian one
** Honeywell only used soil collected from dredged spoils near the lake (2000), whereas NYSDEC used both the dredge spoil data and soil collected from the wetlands near the lake (2000)
– indicates that a compound was not included in the Honeywell table
90th percentile UF for 2,3,7,8-TCDD omnivore level from Sample et al. (1998) was applied to volatile organics, pesticides, PCBs, etc.
[a] Hazard quotients equal to or greater than one are outlined.
NYSDEC prey (food) ingestion rate (FIR) = 0.076 kg/kg-day (based on Nagy, 1987)
NYSDEC sediment ingestion rate (SIR) = 1.0% of FIR (best professional judgment)
NYSDEC water ingestion rate (WIR) = 0.105 L/day (based on Calder and Braun, 1983)
EED = FIR x [COC]p + SIR x [COC]s + WIR x [COC]w
[CoPC]p = CoPC concentrations in the receptors' prey (mg/kg dry weight)
[CoPC]s = CoPC concentrations in the sediments incidentally ingested (mg/kg dry weight)
[CoPC]w = CoPC concentrations in the receptors' drinking water (mg/L)