

Appendix B

Water Quality Data

APPENDIX B. WATER QUALITY DATA

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Table B-1. Summary of Concentrations of Mercury in Metro Discharge and Tributary Water During Base-Flow Conditions in 1992 and Comparison with New York State Water Quality Standards^a

Station/Location	Date	Sample ID	Total Mercury (ng/L)	Methylmercury (ng/L)
W3 E Metro Outfall	09/15/92		25 *	1.5
	10/06/92		56 *	3.1
	10/17/92	Composite	21 *	1.7
	10/17/92	Grab	9.5 *	1.9
W4 Onondaga Creek	06/18/92		4.7 *	0.32
	09/15/92		6.5 *	0.27
	10/05/92		1.8	0.20
	10/16/92	Composite	14 *	0.45
	10/16/92	Grab	4.0 *	
W5 Harbor Brook	05/25/92		3.2 *	0.23
	06/18/92		3.2 *	0.53
	08/16/92		3.7 *	
	09/04/92		4.0 *	0.22
	09/18/92		3.7 *	0.42
	10/05/92		3.1 *	0.35
	11/09/92		3.8 *	0.52
	12/07/92		1.8	0.48
W6 Ley Creek	06/18/92		9.4 *	0.31
	08/15/92		7.2 *	
	09/16/92		4.4 *	0.04
	10/05/92		1.5	0.12
W7 East Flume	04/10/92		79 *	0.68
	05/27/92		37 *	0.94
	07/29/92		40 *	0.62
	08/17/92		41 *	
	09/04/92		41 *	0.56

Table B-1. (cont.)

Station/Location	Date	Sample ID	Total Mercury (ng/L)	Methyl- mercury (ng/L)
W7 East Flume	9/26/92	Composite	33 *	0.49
	9/26/92	Grab	23 *	0.66
	10/05/92		61 *	0.78
	10/24/92	Composite	63 *	0.89
	10/24/92	Grab	95 *	1.2
	11/09/92		91 *	0.89
W8 Tributary 5A	05/25/92		8.7 *	0.06
	06/18/92		19 *	0.19
	08/17/92		5.8 *	0.10
	09/04/92		8.5 *	0.49
	09/18/92		9.2 *	0.05
	10/05/92		7.3 *	0.07
	11/09/92		5.6 *	0.12
12/07/92		6.3 *	0.09	
W9 Bloody Brook	06/19/92		3.6 *	0.05
W10 Ninemile Creek	05/26/92		8.6 *	0.11
	06/17/92		8.7 *	0.20
	09/16/92		21 *	0.14
W11 Sawmill Creek	06/19/92		2.0	0.21
W12 Lake Outlet	06/19/92		4.2 *	0.20
	09/17/92		5.6 *	0.28
	12/09/92		3.9 *	0.78

Notes: * Exceeds wildlife standard

** Exceeds chronic standard

*** Exceeds acute standard

^a State wildlife, chronic, and acute water quality standards are 2.6, 770, and 1,400 ng/L dissolved total mercury, respectively (NYSDEC 1999).

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-2. Summary of Concentrations of Mercury in Metro Discharge and Tributary Water During Intermediate-Flow Conditions in 1992 and Comparison with New York State Water Quality Standards^a

Station/Location	Date	Sample ID	Total Mercury (ng/L)	Methylmercury (ng/L)
W3 E Metro Outfall	11/10/92		18 *	0.58
	12/08/92		23 *	1.4
W4 Onondaga Creek	05/25/92		7.5 *	0.24
	07/28/92		6.0 *	0.30
	08/15/92		3.2 *	
	08/28/92	Grab	31 *	1.4
	09/26/92	Composite	80 *	0.9
	09/26/92	Grab	125 *	1.1
	11/09/92		2.7 *	0.2
	12/07/92		1.1	7.1E-02
	12/16/92	Grab	3.9 *	7.2E-02
W5 Harbor Brook	07/29/92		5.7 *	0.59
	10/25/92	Composite	4.4 *	0.34
	10/25/92	Grab	8.6 *	0.91
W6 Ley Creek	04/22/92		11 *	0.18
	05/25/92		2.6 *	0.09
	07/28/92		11 *	0.24
	10/17/92	Composite	6.7 *	0.13
	11/09/92		3.5 *	0.11
	12/07/92		2.6 *	0.11
W7 East Flume	08/28/92	Grab	79 *	0.68
	08/29/92	Composite	37 *	0.94
	09/18/92		40 *	0.62
	11/22/92	Composite	41 *	
	11/22/92	Composite	41 *	0.56

Table B-2. (cont.)

Station/Location	Date	Sample ID	Total Mercury (ng/L)	Methylmercury (ng/L)
W8 Tributary 5A	07/28/92		9.9 *	0.14
	10/24/92	Composite	90 *	0.67
	10/24/92	Grab	60 *	1.6
W10 Ninemile Creek	08/15/92		18 *	
	08/28/92	Grab	63 *	1.0
	09/02/92		18 *	0.07
	10/06/92		88 *	0.09
	10/24/92	Composite	71 *	0.42
	10/24/92	Grab	49 *	0.42
	11/10/92		8.3 *	0.09
	12/08/92		8.9 *	0.08
	12/16/92	Composite	18 *	0.14
	12/16/92	Grab	13 *	0.14
W12 Lake Outlet	05/27/92		3.3 *	0.24
	07/30/92		4.9 *	0.24
	08/18/92		4.5 *	0.18
	10/07/92		46 *	0.89
	10/18/92	1	6.0 *	2.9
	10/18/92	5	6.4 *	1.6
	10/18/92	10	6.1 *	1.8
	10/18/92	15	7.4 *	1.7
	11/11/92		2.2	1.7

Notes: * Exceeds wildlife standard

** Exceeds chronic standard

*** Exceeds acute standard

^a State wildlife, chronic, and acute water quality values are 2.6, 770, and 1,400 ng/L dissolved total mercury, respectively (NYSDEC 1999).

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

**Table B-3. Summary of Concentrations of Mercury in Metro Discharge and
Tributary Water During High-Flow Conditions in 1992 and
Comparison with New York State Water Quality Standards^a**

Station/Location	Date	Sample ID	Total Mercury (ng/L)	Methyl- mercury (ng/L)
W3 E	08/29/92	Composite	25 *	1.3
Metro Outlet	09/26/92	Composite	38 *	1.1
	11/23/92	Composite	20 *	0.9
	12/18/92	Composite	104 *	1.5
	08/29/92	Grab	23 *	1.5
	09/26/92	Grab	13 *	1.4
	11/23/92	Grab	38 *	1.0
	12/18/92	Grab	93 *	0.9
W4	04/22/92		4.9 *	0.17
Onondaga Creek	08/29/92	Composite	12 *	0.68
	11/23/92	Composite	3.0 *	0.10
	11/23/92	Grab	0.9	0.09
	12/17/92	Composite	4.6 *	
W5	04/10/92		2.7 *	0.3
Harbor Brook	08/28/92	Grab	45 *	9.3
	08/29/92	Composite	19 *	1.6
	09/26/92	Composite	51 *	0.5
	09/26/92	Grab	58 *	1.1
	11/23/92	Composite	147 *	3.2
	11/23/92	Grab	14 *	3.0
	12/17/92	Composite	24 *	1.1
	12/17/92	Grab	8.5 *	1.2
W6	08/29/92	Composite	7.8 *	
Ley Creek	12/17/92	Composite	9.8 *	
	08/29/92	Grab	42 *	1.6
	12/17/92	Grab	3.9 *	0.1
W7	06/17/92		31 *	0.7
East Flume	12/07/92		176 *	1.7
	12/16/92	Composite	171 *	1.1
	12/16/92	Grab	198 *	1.2

Table B-3. (cont.)

Station/Location	Date	Sample ID	Total Mercury (ng/L)	Methylmercury (ng/L)
W8	04/10/92		16 *	0.2
Tributary 5A	08/28/92	Grab	38 *	4.4
	08/29/92	Composite	48 *	1.4
	09/26/92	Composite	28 *	0.2
	09/26/92	Grab	6.0 *	0.4
	11/22/92	Composite	153 *	1.0
	11/22/92	Grab	127 *	2.7
	12/17/92	Composite	125 *	0.7
	12/17/92	Grab	307 *	2.9
W9	12/17/92	Composite	47 *	0.1
Bloody Brook				
W10	04/24/92		13 *	0.15
Ninemile Creek	07/27/92		69 *	
	08/29/92	Composite	34 *	1.4
	09/26/92	Composite	73 *	0.34
	09/26/92	Grab	10 *	0.45
W11	12/17/92	Composite	9.7 *	0.13
Sawmill Creek				
W12	04/25/92		7.9 *	0.26
Lake Outlet	08/29/92	1	3.9 *	0.13
	08/29/92	5	6.2 *	0.20
	08/29/92	10	5.3 *	0.25
	08/29/92	15	6.6 *	2.0
	09/27/92	1	2.4	0.51
	09/27/92	5	2.4 *	0.38
	09/27/92	10	2.8 *	0.47
	09/27/92	15	3.0	0.77
	11/24/92	1	4.1 *	0.91
	11/24/92	5	3.8 *	0.75
	11/24/92	10	3.9 *	1.5
	11/24/92	15	5 *	0.93
	12/18/92	1	5.8 *	0.85
	12/18/92	5	6.1 *	0.89
	12/18/92	10	4.2 *	0.91
	12/18/92	15	6.1 *	0.71

Notes: () Value in TAMS database

* Exceeds wildlife standard

** Exceeds chronic standard

*** Exceeds acute standard

^a State wildlife, chronic, and acute water quality values are 2.6, 770, and 1,400 ng/L dissolved total mercury, respectively (NYSDEC 1999).

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-4. Summary of Concentrations of Mercury in Lake Water in 1992 and Comparison with the New York State Water Quality Standards^a

Station/Location ^b	Month	Sample Depth (m)	Field Replicate Number	Total Mercury (ng/L)		Methylmercury (ng/L)	
				Total	Dissolved	Total	Dissolved
W1 South Basin	04/13/92	3		10	2.6	0.25	0.085
	04/13/92	9	1	12	3.5 *	0.43	0.10
	04/13/92	9	2	14	3.8 *	0.41	0.11
	04/13/92	9	3	15	4.8 *	0.43	0.085
	04/13/92	15		29	4.2 *	0.39	0.12
W1R	04/13/92	9		11	2.5	0.33	0.10
W1	05/27/92	0		4.6	2.3 (2.2)	0.22	0.081 (0.083)
	05/27/92	3		2.9 (3.1)	2.3	0.37	0.15
	05/27/92	6		3.4	2.1	0.14 (0.13)	0.11
	05/27/92	9		2.8	1.6	0.24	0.078
	05/27/92	12		4.9	2.4	0.29 (0.24)	0.13
	05/27/92	15	1	3.9	1.9	0.81 (0.83)	0.22
	05/27/92	15	2	5.1	1.9	0.66 (0.61)	0.28
	05/27/92	15	3	5.8	2.0	0.68	0.24
	05/27/92	18		6.2	2.5	1.1	0.35
W1R	05/28/92	0		5.0	2.9 *	0.21 (0.22)	0.081
	05/28/92	3		4.4	3.2 *	0.27	0.070
	05/28/92	6		7.3	3.4 *	0.25	0.15
	05/28/92	9		6.6	4.3 *	0.19	0.29
	05/28/92	12		5.7	2.5	0.44	0.25
	05/28/92	15		6.1	3.3 *	0.47	0.12
	05/28/92	18		11	3.5 *	2.7	0.51 (0.48)
W1	06/23/92	0		2.8	1.4	0.43	0.16
	06/23/92	3		4.6 (6.4)	2.5	0.40	0.17
	06/23/92	6		3.4	1.1	0.38 (0.37)	0.17
	06/23/92	9		3.0	1.6	1.1 (1.0)	0.47
	06/23/92	12		3.3	2.1	1.1	1.0
	06/23/92	15		9.4 (5.5)	3.4 *	3.7 (4.4)	2.2
	06/23/92	18		7.4	4.1 (3.8) *	6.4	3.6
W1R	06/24/92	0		3.6	3.2 *	0.34	0.15
	06/24/92	3		5.6	1.3	0.32 (0.38)	0.18
	06/24/92	6		1.3	1.2	0.43 (0.40)	0.22
	06/24/92	9	1	7.1	4.0 *	1.1	0.24
	06/24/92	9	2	5.6	2.5	0.69	0.38
	06/24/92	9	3	4.1	1.6	0.90	0.39
	06/24/92	12		7.0	2.6	2.2	1.3
	06/24/92	15		11 (10.4)	5.2 (5.3) *	6.0	2.9
	06/24/92	18		15	4.0 *	7.8	3.3

Table B-4. (cont.)

Station/Location ^b	Date	Sample Depth (m)	Field Replicate Number	Total Mercury (ng/L)		Methylmercury (ng/L)	
				Total	Dissolved	Total	Dissolved
W1	07/21/92	0		3.7	1.3	0.33	0.062
South Basin	07/21/92	3		6.0	1.7	0.34	0.085
	07/21/92	6	1	5.6	1.4	0.25	0.091
	07/21/92	6	2	5.7	1.2	0.25	0.10
	07/21/92	6	3	5.7	1.4	0.22	0.10
	07/21/92	9		3.8	1.4	0.45	0.23
	07/21/92	12		8.2	3.2 *	3.6	2.1
	07/21/92	15		15	3.9 (4.0) *	7.6 (7.8)	1.7
	07/21/92	18		14	3.7 *	7.2 (6.9)	2.4
W1R	07/22/92	0		3.9	1.7	0.15 (0.12)	0.059
	07/22/92	3		6 (4.8)	2.0	0.35 (0.37)	0.067
	07/22/92	6		5.4	2.2	0.21	0.15
	07/22/92	9		4.7	1.4	0.72 (0.43)	0.5 (0.54)
	07/22/92	12		6.8	3.3 *	2.9 (2.7)	1.6
	07/22/92	15		12	4.5 *	7.4 (7.3)	3.5
	07/22/92	18		13	3.8 *	7.1 (7.2)	3.7
W1	08/25/92	0		6.9	4.2 *	0.33	0.073
	08/25/92	3		6.7 (6.2)	3.8 *	0.29	0.069
	08/25/92	6		5.8	3.3 *	0.18	0.097
	08/25/92	9	1	5.4	3.6 *	0.69	0.33
	08/25/92	9	2	6.6	4.2 *	0.49	0.39
	08/25/92	9	3	5.2	3.6 *	0.47	0.38
	08/25/92	12		19	6.4 *	8.8 (7.8)	4.1
	08/25/92	15		18	7.8 *	11	3.4
	08/25/92	18		18	8.5 *	7.0 (7.4)	3.5
W1	09/22/92	0		6.2	2.4	0.33 (0.36)	0.21
	09/22/92	3		5.9	3.5 *	0.57	0.23
	09/22/92	6		7.2	2.9 *	0.43	0.21
	09/22/92	9		8.4	2.7 *	0.53 (0.50)	0.19
	09/22/92	12		19	5.3 *	5.3	3.6
	09/22/92	15		23	9.6 *	0.13 (--)	6.5
	09/22/92	18		23	7.1 *	5.2	3.2
W1	10/12/92	3	1	5.4	2.0	1.7 (1.6)	0.43
	10/12/92	3	2	7.5	2.1	1.3	0.36
	10/12/92	3	3	4.9 (3.2)	1.9	1.3	0.41
	10/12/92	9		5.1 (4.4)	2.4	1.1	0.45
	10/12/92	15		13 (15.5)	10 *	12	8.4
	11/16/92	3		7.3	2.4	1.3	0.68
	11/16/92	9	1	5.5 (5.6)	3.3 *	1.4	0.82
	11/16/92	9	2	6.5	2.6	1.3	0.77

Table B-4. (cont.)

Station/Location ^b	Date	Sample Depth (m)	Field Replicate Number	Total Mercury (ng/L)		Methylmercury (ng/L)	
				Total	Dissolved	Total	Dissolved
W1 South Basin	11/16/92	9	3	6.0 (6.5)		1.3	0.82
	11/16/92	15		6.1	2.6	1.5 (1.4)	
W2 North Basin	04/08/92	3		4.7 (4.4)		0.38	0.11
	04/08/92	9		6.7	4.1 *	0.31	0.13
	04/08/92	15		6.0	2.8 (2.6) *	0.32	0.14
	05/26/92	0		2.9	1.7 (1.9)	2 (0.20)	0.22 (0.05)
	05/26/92	3		4.4	1.9	0.38	0.057
	05/26/92	6		3.9	1.8	0.18	0.093
	05/26/92	9		2.8	1.5	0.45	0.10
	05/26/92	12		5.2	1.6	0.37	0.043
	05/26/92	15		4.8 (5.2)		1.2 (0.79)	0.34
	05/26/92	18		5.7	2.1	1.6 (1.8)	
	06/23/92	0		2.7	1.8	0.32	0.14
	06/23/92	3		3.0	1.8	0.35	0.14
	06/23/92	6		3.1	2.0	0.37	0.18
	06/23/92	9		4.1	1.9	0.94	0.41
	06/23/92	12		5.6	2.3	2.5	1.4
	06/23/92	15		6.1 (6.7)		3.7 (3.9)	2.7
	06/23/92	18		7.8	4.2 *	4.7	3.4
	07/21/92	0		4.8	1.4	0.37	0.088
	07/21/92	3		3.4 (3.97)		0.32	0.062
	07/21/92	6		6.2	0.65	0.29	0.092
	07/21/92	9		5.4	1.8	0.59	0.23
	07/21/92	12		7.4 (7.99)		3.2	1.7
	07/21/92	15		14	3.3 *	7.1	3.6
	07/21/92	18		13	3.6 *	6.4 (7.7)	
	08/24/92	0		11	4.1 *	0.16	0.065
	08/24/92	3		7.0	5.4 *	0.31	0.039
	08/24/92	6		4.7 (4.6)		0.18	0.097
	08/24/92	9		5.3	3.7 *	0.39	0.2
	08/24/92	12		15 (15.5)		7.4 (7.2)	2.7
	08/24/92	15		18	9.8 *	7.8	3.4
	08/24/92	18		16	8.7 *	6.3	4.0
	09/21/92	0		6.9	2.5	0.26	0.042
	09/21/92	3		7.7	3.0 *	0.47 (0.48)	
	09/21/92	6		5.3 (5.1)		0.44	0.12
	09/21/92	9	1	5.1 (5.2)		1.0	0.38
	09/21/92	9	2	6.0	3.2 *	0.46 (0.51)	
	09/21/92	9	3	5.6	2.8 *	0.58 (0.66)	

Table B-4. (cont.)

Station/Location ^b	Date	Sample Depth (m)	Field Replicate Number	Total Mercury (ng/L)		Methylmercury (ng/L)	
				Total	Dissolved	Total	Dissolved
W2	09/21/92	12		19	6.2 *	11 (11.5)	3.4
North Basin	09/21/92	15		20	8.9 *	11	5.1
	09/21/92	18		21	8.8 *	7.0	4.0
	10/12/92	3		5.0	2.4	1.3	0.31
	10/12/92	9		4.5	2.0	0.66	0.33
	10/12/92	15		23 (20.3)	11	12	9.2
	11/16/92	3		7.4	2.7 *	1.6	0.86
	11/16/92	9		5.3	2.3	1.4 (1.5)	0.75
	11/16/92	15		5.4	2.2	1.2	0.60

Notes: () Value in TAMS database

-- Metal not detected

*Exceeds wildlife standard. ** Exceeds chronic standard. ***Exceeds acute standard.

^a State wildlife, chronic, and acute water quality values are 2.6, 770, and 1,400 ng/L dissolved total mercury, respectively (NYSDEC, 1999).

^b Sampling stations were W1, W1R, and W2. Station W1R was a replicate station located at Station W1. The number after each dash indicates sampling depth in meters.

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-5. Summary of Concentrations of Metals Other than Mercury in Metro Discharge and Tributary Water During Base-Flow Conditions in 1992

Station/Location	Date	Sample ID	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Iron (µg/L)	Lead (µg/L)	Manganese (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W3	09/15/92		--	2.5	12		--		19	27
Metro Outfall	10/06/92		--	--	6.3		1.1		19	--
	10/17/92	Composite	--	--	5.3		--		11	30
	10/17/92	Grab	--	--	8.1		--		--	42
W4	06/18/92		--	--	1.3		--		--	7.3
Onondaga Creek	09/15/92		--	--	--		1.3		--	51
	10/05/92		--	--	--		--		--	--
	10/16/92	Composite	--	--	4.9		3.5		--	31
	10/16/92	Grab	--	--	6.4		--		--	14
W5	05/25/92		--	--	1.6		--		--	4.4
Harbor Brook	06/18/92		--	--	--		--		--	--
	08/16/92		--	--	--		--		--	--
	09/18/92		--	--	--		--		--	4
	10/05/92		--	--	--		--		--	--
	11/09/92		--	4.5	--		--		9.1	5.3
	12/07/92		--	--	--		1.7		--	6.4
W6	06/18/92		--	4.3	3.7		7.4		--	19
Ley Creek	08/15/92		--	2.6	4.1		--		--	22
	09/16/92		--	2.6	2.3		3.6		--	10
	10/05/92		--	--	--		2.7		--	--
W7	04/10/92		--	--	3.6		2.3		--	10
East Flume	05/27/92		--	--	6.7		4.2		--	42
	07/29/92		--	--	2.1		--		--	17
	08/17/92		--	--	3.6		--		--	59
	09/26/92	Composite	--	2.7	10		--		--	--
	09/26/92	Grab	--	--	7.3		--		--	74
	10/05/92		--	--	9.1		--		--	196
	10/24/92	Composite	--	5.4	9.4		11		--	97
	10/24/92	Grab	--	11	15		9.8		--	179
	11/09/92		--	--	--		1.3		--	127
W8	05/25/92		--	4.4	10	396	1.4	89	69	13
Tributary 5A	06/18/92		--	28	10		2.1		115	--
	08/17/92		--	21	5.2		--		109	--
	09/18/92		--	6.7	6.1		--		54	59
	10/05/92		--	9.4	9.1		1.3		58	--
	11/09/92		--	7.4	--		1.7		37	5.9
	12/07/92		--	12	5.3		1.3		18	14
W9	06/19/92		--	--	1.9		--		--	--
Bloody Brook										
W10	05/26/92		--	--	--	524	--	113	--	--
Ninemile Creek	06/17/92		--	--	--		--		--	3.3
	09/16/92		--	--	--		--		--	5.6
W11	06/19/92		--	--	--		--		--	--
Sawmill Creek										
W12	06/19/92		--	--	--		--		--	--
Lake Outlet	09/17/92		--	18	--		--		10	14
	12/09/92		--	--	--		--		--	--

Notes: -- Metals not detected

Table B-6. Summary of Concentrations of Metals Other than Mercury in Metro Discharge and Tributary Water During Intermediate-Flow Conditions in 1992

Station/Location	Date	Sample ID	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Iron (µg/L)	Lead (µg/L)	Manganese (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W3 Metro Outfall	12/08/92		--	--	4.2		4.8		--	40
W4 Onondaga Creek	05/25/92		--	--	--	209	1.3	42	--	4.4
	07/28/92		--	--	2.7		2.3		--	11
	08/15/92		--	--	3.1		--		--	--
	08/28/92	Grab	--	--	6.8		3.8		--	27
	09/26/92	Composite	--	--	11		16		--	85
	09/26/92	Grab		2.2	9.5		17		--	70
	11/09/92		--	--	--		--		--	3.6
	12/07/92		--	--	--		--		--	6.1
	12/16/92	Grab		--	4.3		2.6		--	12
W5 Harbor Brook	07/29/92		--	--	--		1.9		--	3.9
	10/25/92	Composite	--	5	--		--		--	11
	10/25/92	Grab	--	5.7	6.7		6.7		--	29
W6 Ley Creek	04/22/92		--	--	4.8		5.2		--	26
	05/25/92		--	--	2.9	586	3.2	100	--	31
	07/28/92		--	3.9	6.6		8.6		--	29
	10/17/92	Composite	--	--	9.4		7.8		--	43
	10/17/92	Grab	--	--	13		3.5		--	33
	11/09/92		--	--	--		3.2		--	24
	12/07/92		--	--	--		1.6		--	26
W7 East Flume	08/28/92	Grab	--	--	7.1		1.5		7.1	59
	08/29/92	Composite	--	8.3	18		28		8.7	77
	09/18/92		--	2.2	6.5		1.8		--	157
	11/22/92	Composite	--	--	5.3		1.4		--	137
	11/22/92	Grab	--	4.4	8		1.4		--	179
W8 Tributary 5A	07/28/92		--	9.5	5.1		2.3		30	6.7
	10/24/92	Composite	--	79	25		12		61	117
	10/24/92	Grab	2.4	119	30		14		93	103
W10 Ninemile Creek	08/15/92		--	--	5.1		--		--	30
	08/28/92	Grab	--	7.7	16		22		9.5	88
	10/06/92		--	12	--		--		8.4	--
	10/24/92	Composite	--	--	5.2		3.9		--	21
	10/24/92	Grab	--	--	6		3.9		--	23
	11/10/92		--	--	--		--		9	--
	12/08/92		--	--	--		1.2		--	--
	12/16/92	Composite	--	--	1.5		9		--	14
	12/16/92	Grab	--	--	4.8		3.8		--	22
W12 Lake Outlet	05/27/92		--	--	--		--		--	6.1
	07/30/92		--	--	--		--		--	6.3
	08/18/92		--	--	--		--		--	--
	10/07/92		--	--	--		--		--	--
	10/18/92	1	--	--	--		--		--	6.7
	10/18/92	5	--	--	--		--		--	7.2
	10/18/92	10	--	--	--		--		--	8.1
	10/18/92	15	--	--	--		--		--	3.3
	11/11/92		--	--	--		--		17	13
	11/11/92		--	--	--		1.1		--	5.3

Notes: -- Metals not detected

Table B-7. Summary of Concentrations of Metals Other than Mercury in Metro Discharge and Tributary Water During High-Flow Conditions in 1992

Station/ Location	Date	Sample ID	Field Replicate Number	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W3 Metro Outfall	08/29/92	Composite		--	--	5.6	2.1	7.6	30
	09/26/92	Composite		--	1.9	8.2	--	5.2	25
	11/23/92	Composite		--	4	5.2	1.1	15	71
	12/18/92	Composite		--	--	9.8	1.4	6.8	41
	08/29/92	Grab		--	--	8.8	1.6	11	43
	09/26/92	Grab		--	4.3	13	--	10	48
	12/18/92	Grab		--	--	11	2.2	9.5	45
	04/22/92			--	--	1.3	1.3	--	7
	08/29/92	Composite		--	--	9.5	16	--	38
W4 Onondaga Creek	11/23/92	Composite		--	--	--	--	--	3.6
	11/23/92	Grab		--	--	--	--	--	3.9
	12/17/92	Composite		--	--	3.6	2.6	--	13
	04/10/92			--	--	2.5	2.7	--	15
W5 Harbor Brook	08/29/92	Composite		--	7	38	60	9.1	115
	09/26/92	Composite		--	--	8.9	--	--	72
	09/26/92	Grab		--	3.5	14	--	--	120
	11/23/92	Composite		--	9.1	48	63	17	188
	11/23/92	Grab		--	--	22	31	8.7	132
	12/17/92	Composite		--	8.8	34	43	7	105
	12/17/92	Grab		--	--	8.4	8.1	--	33
	08/29/92	Composite		--	9	19	25	--	73
W6 Ley Creek	08/29/92	Grab		--	19	58	95	11	182
	09/26/92	Grab		--	8.2	18	14	--	58
	12/17/92	Composite		--	--	13	14	--	68
	12/17/92	Grab		--	--	6.8	5.7	--	39
	04/10/92			--	69	12	5.9	128	12
W8 Tributary 5A	08/28/92	Grab		--	232	60	46	156	157
	08/29/92	Composite		--	79	26	21	83	65
	09/26/92	Composite		--	59	17	--	56	57
	09/26/92	Grab		--	82	20	--	71	--
	11/22/92	Composite		3.2	197	41	23	122	141
	11/22/92	Grab		--	560	125	55	327	259
	12/17/92	Composite		--	256	65	38	153	117
	12/17/92	Grab		--	267	72	40	163	143
	12/17/92	Composite		17	12	42	44	9.3	201
W9 Bloody Brook									
W10 Ninemile Creek	04/24/92			--	--	1.5	1.0	--	39
	07/27/92			2.1	3	5.2	7.4	--	17
	08/29/92	Composite		--	6.4	16	20	9.1	72
	09/26/92	Composite		--	--	4.2	--	--	--
	09/26/92	Grab		--	--	5.3	--	--	--

Table B-7. (cont.)

Station/ Location	Date	Sample Type	Field Replicate Number	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W11 Sawmill Creek	12/17/92	Composite		--	--	4.7	3.5	--	27
W12 Lake Outlet	04/25/92			--	--	1.6	--	--	6.9
	08/29/92	1		--	--	--	--	--	--
	08/29/92	5		--	--	--	--	--	--
	08/29/92	10		--	--	--	--	--	--
	08/29/92	15		--	--	--	--	--	--
	09/27/92	1		--	--	4.9	--	--	--
	09/27/92	5		--	--	2.8	--	--	--
	09/27/92	10		--	--	--	--	--	--
	09/27/92	15		--	--	3.5	--	--	--
	11/24/92	1		--	--	--	--	--	47
	11/24/92	5		--	--	--	--	7.7	11
	11/24/92	10		--	--	--	--	--	5.9
	11/24/92	15		--	--	--	--	--	11
	12/18/92	1		--	--	3.1	5.8	--	47
	12/18/92	5		--	--	1.6	2.5	--	13
	12/18/92	10		--	--	--	--	7.7	16
	12/18/92	15		--	--	1.1	--	5.7	7.4

Notes: -- Metal not detected

Table B-8. Summary of Concentrations of Metals Other than Mercury in Lake Water in 1992

Station/ Location	Date	Sample Location ^a	Field Replicate Sample	Aluminum (µg/L)	Barium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Cyanide (µg/L)	Iron (µg/L)	Lead (µg/L)	Manganese (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W1	04/13/92	W1-3				--	--	51		92	2.1	24	--	100 (102)
South Basin	04/13/92	W1-9	1			--	--	2.5		98	--	23	--	8.0
	04/13/92	W1-9	2			--	--	2.7			7.8		--	11
	04/13/92	W1-9	3			--	--	2.5			2.9		--	13
	04/13/92	W1-15				--	--	2.4		87	1.2	24	--	9.3
	04/13/92	W1R-9				--	--	2.5		94	2.5	26	--	8.1
	05/27/92	W1-0				--	--	--		35	--	10	10	19
	05/27/92	W1-3				--	--	--		39	1.8	11	9.8	51
	05/27/92	W1-6				--	--	--		23	--	11	--	29
	05/27/92	W1-9				--	--	--		29	--	14	--	15
	05/27/92	W1-12				--	--	--		45	2.8	33	9.3	15
	05/27/92	W1-15	1			--	--	--		31	--	187	--	23
	05/27/92	W1-15	2			--	--	--		31	1.2	187	--	21 (R qualifier)
	05/27/92	W1-15	3			--	--	--		31	3.8	187	--	41
	05/27/92	W1-18				--	--	--		40	--	214	9.5	12
	05/28/92	W1R-0				--	--	--		27	3.4	12	15	15
	05/28/92	W1R-3				--	--	4.8		27	--	14	8.4	32
	05/28/92	W1R-6				--	--	2.9		53	18	19	--	29
	05/28/92	W1R-9				--	--	1.4		27	--	12	11	26
	05/28/92	W1R-12				--	--	4.9		26	2.2	41	12	33
	05/28/92	W1R-15				--	--	3.9		27	--	106	--	28
	05/28/92	W1R-18				--	--	2.2 (--)		31	1.4 (1.8)	591	--	41 (R qualifier)
	06/23/92	W1-0				--	2.6	3.1		59	1.3	23	5.0	16
	06/23/92	W1-3				--	2.6	2.7		127	--	19	--	38
	06/23/92	W1-6				--	2.2	3.2		67	1.4	21	--	6.2
	06/23/92	W1-9	1			--	--	2.5		58	--	37	--	25
	06/23/92	W1-9	2			--	--	8.4			--		--	14
	06/23/92	W1-9	3			--	2.0	--			--		--	9.4
	06/23/92	W1-12				--	--	2.2		32	--	184	--	36
	06/23/92	W1-15				--	--	--		38	--	433	--	15
	06/23/92	W1-18				--	2.5	--		63	--	685	--	10
	06/24/92	W1R-0				--	2.7	3.5		50	--	19	--	38
	06/24/92	W1R-3				--	--	--		45	--	18	--	13
	06/24/92	W1R-6				--	--	20		76	--	26	--	20
	06/24/92	W1R-9				--	--	--		54	--	50	--	13
	06/24/92	W1R-12				--	2.0	--		37	1.0	177	--	12
	06/24/92	W1R-15				--	--	2.6		90	--	542	--	140 (143)
	06/24/92	W1R-18				--	--	2.3 (2.2)		49	--	773	--	18

Table B-8. (cont.)

Station/ Location	Date	Sample Location ^a	Field Replicate Sample	Aluminum (µg/L)	Barium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Cyanide (µg/L)	Iron (µg/L)	Lead (µg/L)	Manganese (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W1	07/21/92	W1-0				--	--	--		50	--	7.0	--	4.3
South Basin	07/21/92	W1-3				--	--	--		44	--	6.7	--	5.0
	07/21/92	W1-6	1			--	--	--		45	--	6.6	--	3.8
	07/21/92	W1-6	2			--	--	--			--		--	5.0
	07/21/92	W1-6	3			--	--	--			--		--	7.6
	07/21/92	W1-9				--	--	--		41	--	30	--	6.5
	07/21/92	W1-12				--	--	--		29	--	237	--	6.0
	07/21/92	W1-15				--	2.1	--		49	--	496	--	7.9
	07/21/92	W1-18				--	--	3.0		59	--	501	--	8.0
	07/22/92	W1R-0				--	--	2.1		39	--	6.1	--	130 (128)
	07/22/92	W1R-3				--	--	--		49	--	6.7	--	4.3
	07/22/92	W1R-6				--	--	--		62	--	11	--	5.8
	07/22/92	W1R-9				--	--	--		35	--	81	--	5.4
	07/22/92	W1R-12				--	2.2	--		--	--	222	--	11
	07/22/92	W1R-15				--	--	--		--	--	443	--	8.3 (7.8)
	07/22/92	W1R-18				--	--	--		75	--	497	--	7.4
	08/25/92	W1-0				--	2.1	--		33	--	4.8	--	18
	08/25/92	W1-3				--	--	--		77	--	5.5	--	36
	08/25/92	W1-6				--	--	--		34	--	4	6.5	16
	08/25/92	W1-9	1			--	--	--		134	1.1	20	--	170 (166)
	08/25/92	W1-9	2			--	--	--			1.1		--	80
	08/25/92	W1-9	3			--	--	--			--		--	14
	08/25/92	W1-12				--	--	--		33	1.4	530	--	17
	08/25/92	W1-15				--	--	--		184	--	530	--	24
	08/25/92	W1-18				--	--	--		197	1.6	530	--	9.5
	09/22/92	W1-0				--	--	--		194	1.8	624	--	16
	09/22/92	W1-3				--	--	--		33	--	13	--	2.3
	09/22/92	W1-6		106	58	--	--	--	--	53	1.2	14	--	3.4
	09/22/92	W1-9				--	--	--		116	--	16	--	2.5
	09/22/92	W1-12		119	77	--	--	--	--	83	--	677	--	14 (17)
	09/22/92	W1-15				--	--	--		266	--	663	--	17
	09/22/92	W1-18				--	--	--		167	--	614	--	--
	10/12/92	W1-3	1			--	--	--		74	--	38	9.1	14
	10/12/92	W1-3	2			--	--	3.2			--		9.0	9.3
	10/12/92	W1-3	3			--	--	--			2.4 (--)		--	28 (20)
	10/12/92	W1-9				--	4.8	--		74	4.2	44	--	13
	10/12/92	W1-15				--	--	--		244	--	868	--	7.7

Table B-8. (cont.)

Station/ Location	Date	Sample Location ^a	Field Replicate Sample	Aluminum (µg/L)	Barium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Cyanide (µg/L)	Iron (µg/L)	Lead (µg/L)	Manganese (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W1	11/16/92	W1-3				--	--	--		60	--	145	--	6.6
South Basin	11/16/92	W1-9	1			--	--	--		56	--	146	--	3.9
	11/16/92	W1-9	2			--	--	3.0			--		--	8.1
	11/16/92	W1-9	3			--	--	--			--		--	4.1
	11/16/92	W1-15				2.9	5.3	--		63	--	145	--	3.9
W2	04/08/92	W2-3				--	--	2.0		99	7.7	18	--	12
North Basin	04/08/92	W2-9				--	--	1.1 (1.2)		85	2.7 (3.8)	19	--	10 (11.8)
	04/08/92	W2-15				--	--	2.2		71	2.9	23	--	12
	05/26/92	W2-0				--	--	--		34	--	--	--	50
	05/26/92	W2-3				--	--	--		--	--	--	--	2.7
	05/26/92	W2-6				--	--	1.2		29	1.2	14	--	3.2
	05/26/92	W2-9				--	--	1.2		42	--	41	--	5
	05/26/92	W2-12				--	--	1.2		42	1.3	60	--	46
	05/26/92	W2-15				--	--	1.5		28	--	235	--	5.7
	05/26/92	W2-18				--	--	--		37	--	302	--	5.2
	06/23/92	W2-0				--	2.2	--		51	--	18	--	80
	06/23/92	W2-3				--	--	3.0		46	2.1	18	--	21
	06/23/92	W2-6				--	--	2.5		51	--	23	5.3	22
	06/23/92	W2-9				--	2.1	--		44	--	51	--	19
	06/23/92	W2-12				--	--	2.4		43	--	171	--	23
	06/23/92	W2-15				--	--	2.2		31	1.1	465	--	17
	06/23/92	W2-18				--	--	--		35	--	480	--	35
	07/21/92	W2-0				--	--	2.1		38	--	7	--	7.6
	07/21/92	W2-3				--	--	--		39	1.1 (--)	6.5	--	19 (20)
	07/21/92	W2-6				--	--	--		65	--	9	--	8.8
	07/21/92	W2-9				--	--	--		58	--	30	5.2	9.7
	07/21/92	W2-12				--	--	--		38	--	197	--	9.6
	07/21/92	W2-15				--	--	--		48	--	483	--	8.5
	07/21/92	W2-18				--	--	--		65	--	492	--	8.4

Table B-8. (cont.)

Station/ Location	Date	Sample Location ^a	Field Replicate Sample	Aluminum (µg/L)	Barium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Copper (µg/L)	Cyanide (µg/L)	Iron (µg/L)	Lead (µg/L)	Manganese (µg/L)	Nickel (µg/L)	Zinc (µg/L)
W2	08/24/92	W2-0				--	--	--		21	--	3.2	--	11
North Basin	08/24/92	W2-3				--	2.3 (2.5)	--		62	1.5 (--)	4.7	--	20 (33)
	08/24/92	W2-6				--	--	--		25	--	3	--	11
	08/24/92	W2-9				--	--	--		24.1	--	16	--	8.3
	08/24/92	W2-12				--	--	--		32	--	493	--	6.6
	08/24/92	W2-15				--	2.7	--		219	--	525	--	42
	08/24/92	W2-18				--	--	--		108	--	351	--	28
	09/21/92	W2-0				--	--	--		31	--	6.5	--	8.5
	09/21/92	W2-3				--	--	--		39	--	7.1	--	26
	09/21/92	W2-6		92	67	--	--	--	171	24	--	7.5	--	--
	09/21/92	W2-9	1			--	--	--		46	--	31	--	26
	09/21/92	W2-9	2			--	--	--			1.3		--	9.9
	09/21/92	W2-9	3			--	--	--			--		--	14
	09/21/92	W2-12		112	76	--	--	--	--	127	--	626	--	--
	09/21/92	W2-15				--	--	--		251	1.0	630	--	--
	09/21/92	W2-18				--	--	--		45	1.4	12	--	4.7
	10/12/92	W2-3				--	--	--		63	--	32	--	5.1
	10/12/92	W2-9				--	--	--		53	1.3	38	--	13
	10/12/92	W2-15				--	--	--		362	--	880	--	17
	11/16/92	W2-3				3.1 (--)	4.1 (4.2)	--		51	--	143	--	3.6
	11/16/92	W2-9				2.7	--	--		50	--	144	--	17
	11/16/92	W2-15				2.7	--	--		52	--	146	--	4.9

Notes: () Value in TAMS database

-- Metal not detected

^a Sampling stations were W1, W1R, and W2. Station W1R was a replicate station located at Station W1

The number after each dash indicates sampling depth in meters

Table B-9. Ratios of Concentrations of Metals Other than Mercury to New York State Chronic Water Quality Standards for Metro Discharge and Tributary Water During Base-Flow Conditions in 1992^a

Station/Location	Date	Sample ID	Hardness	Cadmium	Chromium	Copper	Iron	Lead	Nickel	Zinc
W3 Metro Outfall	09/15/92		244	< 0.47	0.02	0.63		0.10	0.17	0.15
	10/06/92		270	< 0.44	< 0.01	0.30		0.10	0.16	< 0.01
	10/17/92	Composite	199	< 0.56	< 0.02	0.33		< 0.13	0.11	0.20
	10/17/92	Grab	214	< 0.53	< 0.01	0.47		< 0.12	< 0.05	0.26
W4 Onondaga Creek	06/18/92		492	< 0.27	< 0.01	0.04		< 0.05	< 0.02	0.02
	09/15/92		456	< 0.29	< 0.01	< 0.03		0.07	< 0.03	0.17
	10/05/92		327	< 0.38	< 0.01	< 0.04		< 0.07	< 0.04	< 0.01
	10/16/92	Composite	335	< 0.37	< 0.01	0.19		0.26	< 0.03	0.13
	10/16/92	Grab	352	< 0.36	< 0.01	0.24		< 0.07	< 0.03	0.06
W5 Harbor Brook	05/25/92		844	< 0.18	< 0.00	0.03		< 0.03	< 0.02	0.01
	06/18/92		815	< 0.18	< 0.00	< 0.02		< 0.03	< 0.02	< 0.00
	08/16/92		613**	< 0.23	< 0.01	< 0.02		< 0.04	< 0.02	< 0.01
	09/18/92		677	< 0.21	< 0.01	< 0.02		< 0.04	< 0.02	0.01
	10/05/92		669	< 0.21	< 0.01	< 0.02		< 0.04	< 0.02	< 0.005
	11/09/92		564	< 0.25	0.01	< 0.03		< 0.04	0.04	0.01
	12/07/92		614	< 0.23	< 0.01	< 0.02		0.07	< 0.02	0.02
W6 Ley Creek	06/18/92		530	< 0.26	0.01	0.10		0.34	< 0.02	0.06
	08/15/92		327	< 0.38	0.01	0.17		< 0.07	< 0.04	0.10
	09/16/92		367	< 0.34	0.01	0.08		0.24	< 0.03	0.04
	10/05/92		377	< 0.34	< 0.01	< 0.04		0.17	< 0.03	< 0.01
W7 East Flume	04/10/92		431	< 0.30	< 0.01	0.12		0.13	< 0.03	0.04
	05/27/92		361	< 0.35	< 0.01	0.25		0.28	< 0.03	0.17
	07/29/92		402	< 0.32	< 0.01	0.07		< 0.06	< 0.03	0.06
	08/17/92		387	< 0.33	< 0.01	0.13		< 0.06	< 0.03	0.22
	09/26/92	Composite	280	< 0.43	0.02	0.47		< 0.09	< 0.04	< 0.01
	09/26/92	Grab	332	< 0.37	< 0.01	0.29		< 0.07	< 0.03	0.32
	10/05/92		544**	< 0.25	< 0.01	0.24		< 0.04	< 0.02	0.56
	10/24/92	Composite	301	< 0.40	0.03	0.41		0.88	< 0.04	0.46
	10/24/92	Grab	521	< 0.26	0.04	0.41		0.46	< 0.02	0.53
11/09/92		367	< 0.34	< 0.01	< 0.04		0.09	< 0.03	0.51	
W8 Tributary 5A	05/25/92		369	< 0.34	0.02	0.38	1.32*	0.09	0.44	0.05
	06/18/92		320	< 0.38	0.15	0.43		0.16	0.83	< 0.01
	08/17/92		262	< 0.45	0.13	0.25		< 0.09	0.93	< 0.01
	09/18/92		227	< 0.50	0.05	0.34		< 0.11	0.52	0.36
	10/05/92		270	< 0.44	0.06	0.43		0.12	0.48	< 0.01
	11/09/92		227**	< 0.50	0.05	< 0.06		0.19	0.36	0.04
	12/07/92		223	< 0.51	0.08	0.3		0.15	0.18	0.09

Table B-9. (cont.)

Station/Location	Date	Sample ID	Hardness	Cadmium	Chromium	Copper	Iron	Lead	Nickel	Zinc
W9 Bloody Brook	06/19/92		449	< 0.29	< 0.02	0.06		< 0.05	< 0.03	< 0.01
W10 Ninemile Creek	05/26/92		1347	< 0.12	< 0.01	< 0.01	1.75*	< 0.02	< 0.01	< 0.003
	06/17/92		1661	< 0.11	< 0.01	< 0.01		< 0.02	< 0.01	0.004
	09/16/92		1221	< 0.13	< 0.00	< 0.01		< 0.02	< 0.01	0.01
W11 Sawmill Creek	06/19/92		582	< 0.24	< 0.01	< 0.02		< 0.04	< 0.02	< 0.01
W12 Lake Outlet	06/19/92		265	< 0.45	< 0.02	< 0.05		< 0.09	< 0.04	< 0.01
	09/17/92		365	< 0.35	0.08	< 0.04		< 0.07	0.06	0.06
	12/09/92		452	< 0.29	< 0.02	< 0.03		< 0.05	< 0.03	< 0.01

Notes: < Ratio is based on lowest detection limit, because metal was not detected

* Ratio >1.0, denoting exceedance of water-quality standard

** Averaged hardness value

^a Water quality standards based on NYSDEC (1999) for water classes A-C. Sample-specific hardness values are presented in Table B-14

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-10. Ratios of Concentrations of Metals Other than Mercury to New York State Chronic Water Quality Standards for Metro Discharge and Tributary Water During Intermediate-Flow Conditions in 1992^a

Station/Location	Date	Sample ID	Hardness	Cadmium	Chromium	Copper	Iron	Lead	Nickel	Zinc
W3 Metro Outfall	12/08/92		247	< 0.47	< 0.01	0.22		0.48	< 0.04	0.22
W4 Onondaga Creek	05/25/92		313	< 0.39	< 0.01	< 0.04	0.70	0.10	< 0.04	0.02
	07/28/92		359	< 0.35	< 0.01	0.10		0.16	< 0.03	0.04
	08/15/92		287	< 0.42	< 0.01	0.14		< 0.09	< 0.04	< 0.01
	08/28/92	Grab	345	< 0.36	< 0.01	0.26		0.27	< 0.03	0.11
	09/26/92	Composite	255	< 0.46	< 0.01	0.55		1.56	< 0.04	0.46
	09/26/92	Grab	262	< 0.45	0.01	0.47		1.64	< 0.04	0.37
	11/09/92		290	< 0.41	< 0.01	< 0.04		< 0.08	< 0.04	0.02
	12/07/92		282	< 0.42	< 0.01	< 0.05		< 0.09	< 0.04	0.03
	12/16/92	Grab	310	< 0.39	< 0.01	0.18		0.21	< 0.04	0.06
W5 Harbor Brook	07/29/92		744	< 0.20	< 0.01	< 0.02		0.06	< 0.02	0.01
	10/25/92	Composite	517	< 0.26	0.02	< 0.03		< 0.05	< 0.02	0.03
	10/25/92	Grab	479	< 0.28	0.02	0.20		0.34	< 0.03	0.09
W6 Ley Creek	04/22/92		398	< 0.32	< 0.01	0.16		0.32	< 0.03	0.10
	05/25/92		233	< 0.49	< 0.01	0.16	1.95*	0.34	< 0.05	0.18
	07/28/92		443	< 0.30	0.02	0.21		0.47	< 0.03	0.10
	10/17/92	Composite	272**	< 0.44	< 0.01	0.45		0.70	< 0.04	0.22
	10/17/92	Grab	282	< 0.42	< 0.01	0.62		0.31	< 0.04	0.17
	11/09/92		292	< 0.41	< 0.01	< 0.04		0.27	< 0.04	0.12
	12/07/92		357	< 0.35	< 0.01	< 0.04		0.11	< 0.03	0.11
W7 East Flume	08/28/92	Grab	365	< 0.35	< 0.01	0.26		0.10	0.05	0.24
	08/29/92	Composite	312	< 0.39	0.04	0.76		* 2.2	0.06	0.35
	09/18/92		434	< 0.30	0.01	0.21		0.10	< 0.03	0.55
	11/22/92	Composite	550**	< 0.25	< 0.01	0.14		0.06	< 0.02	0.39
	11/22/92	Grab	521	< 0.26	0.02	0.22		0.07	< 0.02	0.53
W8 Tributary 5A	07/28/92		283**	< 0.42	0.05	0.23		0.20	0.24	0.03
	10/24/92	Composite	283	< 0.42	0.45	* 1.1		* 1.0	0.49	0.58
	10/24/92	Grab	248	0.56	0.76	* 1.6		* 1.4	0.83	0.58
W10 Ninemile Creek	08/15/92		582	< 0.24	< 0.01	0.13		< 0.04	< 0.02	0.08
	08/28/92	Grab		< 0.18	0.02	0.29		0.64	0.03	0.18
	10/06/92		729	< 0.20	0.03	< 0.02		< 0.03	0.03	< 0.00
	10/24/92	Composite	811	< 0.18	< 0.005	0.10		0.12	< 0.02	0.04
	10/24/92	Grab	895	< 0.17	< 0.004	0.10		0.11	< 0.02	0.04
	11/10/92		764	< 0.19	< 0.01	< 0.02		< 0.03	0.03	< 0.00
	12/08/92		851	< 0.18	< 0.005	< 0.02		0.03	< 0.02	< 0.00
	12/16/92	Composite	777	< 0.19	< 0.01	0.03		0.28	< 0.02	0.03
	12/16/92	Grab	809	< 0.19	< 0.005	0.09		0.11	< 0.02	0.04
				<						
W12 Lake Outlet	05/27/92		486	< 0.28	< 0.01	< 0.03		< 0.05	< 0.03	0.02
	07/30/92		440	< 0.30	< 0.01	< 0.03		< 0.06	< 0.03	0.02
	08/18/92		385	< 0.33	< 0.01	< 0.04		< 0.06	< 0.03	< 0.01
	10/07/92		410	< 0.32	< 0.01	< 0.03		< 0.06	< 0.03	< 0.01
	10/18/92	1	434	< 0.30	< 0.01	< 0.03		< 0.06	< 0.03	0.02
	10/18/92	5	432	< 0.30	< 0.01	< 0.03		< 0.06	< 0.03	0.03
	10/18/92	10	444	< 0.30	< 0.01	< 0.03		< 0.05	< 0.03	0.03
	10/18/92	15	417	< 0.31	< 0.01	< 0.03		< 0.06	< 0.03	0.01
	11/11/92		400	< 0.32	< 0.01	< 0.03		< 0.06	0.10	0.05
	11/11/92		400	< 0.32	< 0.01	< 0.03		0.07	< 0.03	0.02

Notes: < Ratio is based on lowest detection limit, because metal was not detected

* Ratio >1.0, denoting exceedance of water-quality standard

** Averaged hardness value

^a Water quality standards based on NYSDEC (1999) for water classes A-C. Sample-specific hardness values are presented in Table B-14

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-11. Ratios of Concentrations of Metals Other than Mercury to New York State Chronic Water Quality Standards for Metro Discharge and Tributary Water During High-Flow Conditions in 1992^a

Station/ Location	Date	Sample ID	Hardness	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
W3 Metro Outfall	08/29/92	Composite	552	< 0.25	< 0.01	0.15	0.09	0.03	0.09
	09/26/92	Composite	230**	< 0.50	0.01	0.45	< 0.11	0.05	0.15
	11/23/92	Composite	250	< 0.47	0.03	0.27	0.11	0.13	0.39
	12/18/92	Composite	257	< 0.46	< 0.01	0.49	0.13	0.06	0.22
	08/29/92	Grab	659	< 0.22	< 0.01	0.20	0.06	0.04	0.11
	09/26/92	Grab	267	< 0.44	0.03	0.60	< 0.09	0.09	0.25
	12/18/92	Grab	241	< 0.48	< 0.01	0.57	0.23	0.09	0.26
W4 Onondaga Creek	04/22/92		341	< 0.36	< 0.01	0.05	0.09	< 0.03	0.03
	08/29/92	Composite	235	< 0.49	< 0.01	0.51	1.7	< 0.05	0.22
	11/23/92	Composite	407	< 0.32	< 0.01	< 0.03	< 0.06	< 0.03	0.01
	11/23/92	Grab	399	< 0.32	< 0.01	< 0.03	< 0.06	< 0.03	0.01
	12/17/92	Composite	302	< 0.40	< 0.01	0.16	0.21	< 0.04	0.06
W5 Harbor Brook	04/10/92		742	< 0.20	< 0.01	0.05	0.09	< 0.02	0.03
	08/29/92	Composite	135	< 0.76	0.07	* 3.27	* 11	0.14	* 1.1
	09/26/92	Composite	192	< 0.57	< 0.02	0.57	< 0.13	< 0.06	0.50
	09/26/92	Grab	287	< 0.42	0.02	0.63	< 0.09	< 0.04	0.59
	11/23/92	Composite	448	< 0.29	0.04	* 1.5	* 3.4	0.09	0.64
	11/23/92	Grab	703	< 0.21	< 0.01	0.47	* 1.1	0.03	0.30
	12/17/92	Composite	372	< 0.34	0.04	* 1.2	* 2.8	0.04	0.42
	12/17/92	Grab	424	< 0.31	< 0.01	0.27	0.46	< 0.03	0.12
W6 Ley Creek	08/29/92	Composite	205	< 0.54	0.07	* 1.2	* 3.1	< 0.05	0.48
	08/29/92	Grab	150	< 0.70	0.19	* 4.6	* 16	0.15	* 1.6
	09/26/92	Grab	297	< 0.41	0.05	0.80	* 1.2	< 0.04	0.28
	12/17/92	Composite	262	< 0.45	< 0.01	0.63	* 1.3	< 0.04	0.36
	12/17/92	Grab	295	< 0.41	< 0.01	0.30	0.47	< 0.04	0.19
W7 East Flume	06/17/92		544	< 0.25	< 0.01	0.06	< 0.04	< 0.02	0.15
	12/07/92		401**	< 0.32	< 0.01	0.08	0.12	< 0.03	0.46
	12/16/92	Composite	462	< 0.29	< 0.01	0.18	0.07	0.03	0.43
	12/16/92	Grab	459	< 0.29	< 0.01	0.23	0.08	0.03	0.42
W8 Tributary 5A	04/10/92		424	< 0.31	0.28	0.38	0.34	0.73	0.04
	08/28/92	Grab	179	< 0.61	* 1.9	* 4.1	* 6.5	* 1.8	* 1.2
	08/29/92	Composite	208**	< 0.54	0.59	* 1.5	* 2.5	0.86	0.42
	09/26/92	Composite	202	< 0.55	0.44	* 1.0	< 0.12	0.59	0.38
	09/26/92	Grab	235	< 0.49	0.55	* 1.1	< 0.11	0.66	< 0.01
	11/22/92	Composite	271	0.70	* 1.2	* 2.0	* 2.1	* 1.0	0.73
	11/22/92	Grab	342	< 0.36	* 2.8	* 4.9	* 3.9	* 2.2	* 1.1
	12/17/92	Composite	319**	< 0.38	* 1.3	* 2.7	* 2.9	* 1.1	0.53
12/17/92	Grab	342	< 0.36	* 1.3	* 2.8	* 2.8	* 1.1	0.61	
W9 Bloody Brook				<					
	12/17/92	Composite	187	* 5.1	0.09	* 2.8	* 5.9	0.11	* 1.4

Table B-11. (cont.)

Station/ Location	Date	Sample ID	Hardness	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
W10 Ninemile Creek	04/24/92		844**	< 0.18	< 0.005	0.03	0.03	< 0.02	0.08
	07/27/92		557	0.26	0.01	0.13	0.32	< 0.02	0.05
	08/29/92	Composite	689	< 0.21	0.02	0.35	0.69	0.03	0.17
	09/26/92	Composite	522	< 0.26	< 0.01	0.11	< 0.05	< 0.02	< 0.01
	09/26/92	Grab	634	< 0.22	< 0.01	0.12	< 0.04	< 0.02	< 0.01
W11 Sawmill Creek	12/17/92	Composite	262	< 0.45	< 0.01	0.23	0.33	< 0.04	0.14
W12 Lake Outlet	04/25/92		467	< 0.29	< 0.01	0.05	< 0.05	< 0.03	0.02
	08/29/92	1	170	< 0.63	< 0.02	< 0.07	< 0.15	< 0.06	< 0.02
	08/29/92	5	170	< 0.63	< 0.02	< 0.07	< 0.15	< 0.06	< 0.02
	08/29/92	10	367	< 0.34	< 0.01	< 0.04	< 0.07	< 0.03	< 0.01
	08/29/92	15	417	< 0.31	< 0.01	< 0.03	< 0.06	< 0.03	< 0.01
	09/27/92	1	221	< 0.51	< 0.01	0.28	< 0.11	< 0.05	< 0.01
	09/27/92	5	282	< 0.42	< 0.01	0.13	< 0.09	< 0.04	< 0.01
	09/27/92	10	382	< 0.33	< 0.01	< 0.04	< 0.06	< 0.03	< 0.01
	09/27/92	15	375	< 0.34	< 0.01	0.13	< 0.06	< 0.03	< 0.01
	11/24/92	1	510	< 0.27	< 0.01	< 0.03	< 0.05	< 0.02	0.14
	11/24/92	5	498	< 0.27	< 0.01	< 0.03	< 0.05	0.04	0.03
	11/24/92	10	513	< 0.26	< 0.01	< 0.03	< 0.05	< 0.02	0.02
	11/24/92	15	507	< 0.27	< 0.01	< 0.03	< 0.05	< 0.02	0.03
	12/18/92	1	427	< 0.31	< 0.01	0.10	0.33	< 0.03	0.17
	12/18/92	5	427	< 0.31	< 0.01	0.05	0.14	< 0.03	0.05
12/18/92	10	439	< 0.30	< 0.01	< 0.03	< 0.06	0.04	0.05	
12/18/92	15	434	< 0.30	< 0.01	0.04	< 0.06	0.03	0.03	

Notes: < Ratio is based on lowest detection limit, because metal was not detected

* Ratio >1.0, denoting exceedance of water-quality standard

** Averaged hardness value

^a Water quality standards based on NYSDEC (1999) for water classes A-C. Sample-specific hardness values are presented in Table B-14

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany

Table B-12. Ratios of Concentrations of Metals Other than Mercury to New York State Acute Water Quality Standards for Metro Discharge and Tributary Water During High-Flow Conditions in 1992^a

Station/ Location	Date	Sample ID	Hardness	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
W3 Metro Outfall	08/29/92	Composite	552	< 0.08	< 0.001	0.08	0.004	0.004	0.06
	09/26/92	Composite	230**	< 0.20	0.002	0.28	< 0.004	0.01	0.10
	11/23/92	Composite	250	< 0.19	0.003	0.16	0.004	0.01	0.28
	12/18/92	Composite	257	< 0.18	< 0.002	0.30	0.01	0.01	0.16
	08/29/92	Grab	659	< 0.06	< 0.001	0.11	0.002	0.005	0.07
	09/26/92	Grab	267	< 0.17	0.003	0.37	< 0.004	0.01	0.18
	12/18/92	Grab	241	< 0.19	< 0.002	0.35	0.01	0.01	0.18
W4 Onondaga Creek	04/22/92		341	< 0.13	< 0.001	0.03	0.004	< 0.004	0.02
	08/29/92	Composite	235	< 0.20	< 0.002	0.32	0.07	< 0.01	0.16
	11/23/92	Composite	407	< 0.11	< 0.001	< 0.02	< 0.002	< 0.003	0.01
	11/23/92	Grab	399	< 0.11	< 0.001	< 0.02	< 0.002	< 0.003	0.01
	12/17/92	Composite	302	< 0.15	< 0.001	0.09	0.01	< 0.004	0.04
W5 Harbor Brook	04/10/92		742	< 0.05	< 0.001	0.03	0.00	< 0.002	0.02
	08/29/92	Composite	135	< 0.37	0.01	* 2.12	0.45	0.02	0.76
	09/26/92	Composite	192	< 0.25	< 0.002	0.36	< 0.01	< 0.01	0.35
	09/26/92	Grab	287	< 0.16	0.003	0.38	< 0.003	< 0.004	0.42
	11/23/92	Composite	448	< 0.10	0.005	0.87	0.13	0.01	0.45
	11/23/92	Grab	703	< 0.06	< 0.001	0.26	0.04	0.004	0.22
	12/17/92	Composite	372	< 0.12	0.01	0.73	0.11	0.005	0.29
	12/17/92	Grab	424	< 0.10	< 0.001	0.16	0.02	< 0.003	0.08
W6 Ley Creek	08/29/92	Composite	205	< 0.23	0.01	0.72	0.12	< 0.01	0.34
	08/29/92	Grab	150	< 0.33	0.02	* 2.93	0.63	0.02	* 1.1
	09/26/92	Grab	297	< 0.15	0.01	0.48	0.05	< 0.004	0.20
	12/17/92	Composite	262	< 0.18	< 0.002	0.39	0.05	< 0.005	0.26
	12/17/92	Grab	295	< 0.15	< 0.001	0.18	0.02	< 0.004	0.13
W7 East Flume	06/17/92		544	< 0.08	< 0.001	0.04	< 0.002	< 0.003	0.11
	12/07/92		401**	< 0.11	< 0.001	0.04	0.005	< 0.003	0.33
	12/16/92	Composite	462	< 0.09	< 0.001	0.10	0.003	0.004	0.30
	12/16/92	Grab	459	< 0.09	< 0.001	0.13	0.003	0.004	0.30
W8 Tributary 5A	04/10/92		424	< 0.10	0.04	0.22	0.01	0.08	0.03
	08/28/92	Grab	179	< 0.27	0.25	* 2.6	0.25	0.20	0.82
	08/29/92	Composite	208**	< 0.23	0.08	0.96	0.10	0.10	0.30
	09/26/92	Composite	202	< 0.24	0.06	0.64	< 0.005	0.07	0.27
	09/26/92	Grab	235	< 0.20	0.07	0.66	< 0.004	0.07	< 0.01
	11/22/92	Composite	271	0.27	0.15	* 1.2	0.08	0.11	0.52
	11/22/92	Grab	342	< 0.13	0.36	* 2.9	0.15	0.25	0.78
	12/17/92	Composite	319**	< 0.14	0.17	* 1.6	0.11	0.12	0.37
	12/17/92	Grab	342	< 0.13	0.17	* 1.7	0.11	0.12	0.43
W9 Bloody Brook	12/17/92	Composite	187	* 2.2	0.01	* 1.7	0.23	0.01	* 1.01
W10 Ninemile Creek	04/24/92		844**	< 0.05	< 0.001	0.02	0.001	< 0.002	0.05
	07/27/92		557	0.08	0.001	0.08	0.01	< 0.002	0.03
	08/29/92	Composite	689	< 0.06	0.002	0.20	0.03	0.004	0.12
	09/26/92	Composite	522	< 0.08	< 0.001	0.07	< 0.002	< 0.003	< 0.00
	09/26/92	Grab	634	< 0.06	< 0.001	0.07	< 0.001	< 0.002	< 0.00

Table B-12 (cont.)

Station/ Location	Date	Sample ID	Hardness	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
W11 Sawmill Creek	12/17/92	Composite	262	< 0.18	< 0.002	0.14	0.01	< 0.005	0.10
W12 Lake Outlet	04/25/92		467	< 0.09	< 0.001	0.03	< 0.002	< 0.003	0.02
	08/29/92	1	170	< 0.29	< 0.002	< 0.05	< 0.01	< 0.01	< 0.01
	08/29/92	5	170	< 0.29	< 0.002	< 0.05	< 0.01	< 0.01	< 0.01
	08/29/92	10	367	< 0.12	< 0.001	< 0.02	< 0.003	< 0.004	< 0.01
	08/29/92	15	417	< 0.10	< 0.001	< 0.02	< 0.002	< 0.003	< 0.01
	09/27/92	1	221	< 0.21	< 0.002	0.17	< 0.004	< 0.01	< 0.01
	09/27/92	5	282	< 0.16	< 0.002	0.08	< 0.003	< 0.004	< 0.01
	09/27/92	10	382	< 0.11	< 0.001	< 0.02	< 0.002	< 0.003	< 0.01
	09/27/92	15	375	< 0.12	< 0.001	0.07	< 0.003	< 0.003	< 0.01
	11/24/92	1	510	< 0.08	< 0.001	< 0.02	< 0.002	< 0.003	0.10
	11/24/92	5	498	< 0.09	< 0.001	< 0.02	< 0.002	0.004	0.02
	11/24/92	10	513	< 0.08	< 0.001	< 0.02	< 0.002	< 0.003	0.01
	11/24/92	15	507	< 0.08	< 0.001	< 0.02	< 0.002	< 0.003	0.02
	12/18/92	1	427	< 0.10	< 0.001	0.06	0.01	< 0.003	0.12
	12/18/92	5	427	< 0.10	< 0.001	0.03	0.01	< 0.003	0.03
	12/18/92	10	439	< 0.10	< 0.001	< 0.02	< 0.002	0.005	0.04
	12/18/92	15	434	< 0.10	< 0.001	0.02	< 0.002	0.004	0.02

Notes:

< Ratio is based on detection limit, because metal was not detected

* Ratio >1.0, denoting exceedance of water-quality standard

^a Water quality standards based on NYSDEC (1999) for water classes A-C

Source:

NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms : New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-13. Ratios of Concentrations of Metals Other than Mercury to New York State Chronic Water Quality Standards for Lake Water in 1992^a

Station/ Location	Date	Sample ID	Field Replicate Number	Aluminum	Cadmium	Chromium	Copper	Cyanide	Iron	Lead	Nickel	Zinc
W1	04/13/92	W1-3		< 0.27	< 0.01	< 0.01	1.5 *		0.31	0.10	< 0.04	0.32
South Basin	04/13/92	W1-9	1	< 0.30	< 0.02	< 0.02	0.08		0.33	< 0.06	< 0.04	0.03
	04/13/92	W1-9	2	< 0.29	< 0.02	< 0.02	0.08			0.41	< 0.04	0.04
	04/13/92	W1-9	3	< 0.29	< 0.02	< 0.02	0.08			0.15	< 0.04	0.04
	04/13/92	W1-15		< 0.28	< 0.02	< 0.02	0.07		0.29	0.06	< 0.04	0.03
	04/13/92	W1-9R		< 0.27	< 0.01	< 0.01	0.07		0.31	0.12	< 0.04	0.02
	05/27/92	W1-0		< 0.28	< 0.01	< 0.01	< 0.03		0.12	< 0.05	0.05	0.06
	05/27/92	W1-3		< 0.28	< 0.02	< 0.02	< 0.22		0.13	0.09	0.05	0.16
	05/27/92	W1-6		< 0.28	< 0.01	< 0.01	< 0.05		0.08	< 0.05	< 0.04	0.09
	05/27/92	W1-9		< 0.28	< 0.01	< 0.01	< 0.06		0.10	< 0.05	< 0.04	0.05
	05/27/92	W1-12		< 0.27	< 0.01	< 0.01	< 0.09		0.15	0.14	0.05	0.05
	05/27/92	W1-15	1	< 0.27	< 0.01	< 0.01	< 0.06		0.10	< 0.05	< 0.04	0.07
	05/27/92	W1-15	2	< 0.27	< 0.01	< 0.01	< 0.03		0.10	0.06	< 0.04	
	05/27/92	W1-15	3	< 0.27	< 0.01	< 0.01	< 0.06		0.10	0.18	< 0.04	0.13
	05/27/92	W1-18		< 0.27	< 0.01	< 0.01	< 0.07		0.13	< 0.05	0.05	0.04
	05/28/92	W1-0R		< 0.28	< 0.01	< 0.01	< 0.08		0.09	0.17	0.08	0.05
	05/28/92	W1-3R		< 0.28	< 0.01	< 0.01	0.14		0.09	< 0.05	0.04	0.10
	05/28/92	W1-6R		< 0.28	< 0.01	< 0.01	0.08		0.18	0.91	< 0.04	0.09
	05/28/92	W1-9R		< 0.28	< 0.01	< 0.01	0.04		0.09	< 0.05	0.06	0.08
	05/28/92	W1-12R		< 0.28	< 0.01	< 0.01	0.14		0.09	0.11	0.06	0.10
	05/28/92	W1-15R		< 0.28	< 0.01	< 0.01	0.11		0.09	< 0.05	< 0.04	0.09
	05/28/92	W1-18R		< 0.28	< 0.01	< 0.01	0.06 (<0.03)		0.10	0.07 (0.09)	< 0.04	
	06/23/92	W1-0		< 0.27		0.01	0.09		0.20	0.06	0.02	0.05
	06/23/92	W1-3		< 0.27		0.01	0.08		0.42	< 0.05	< 0.02	0.12
	06/23/92	W1-6		< 0.28		0.01	0.09		0.22	0.07	< 0.03	0.02
	06/23/92	W1-9	1	< 0.27	< 0.01	< 0.01	0.07		0.19	< 0.05	< 0.02	0.08
	06/23/92	W1-9	2	< 0.27	< 0.01	< 0.01	0.24			< 0.05	< 0.02	0.04
	06/23/92	W1-9	3	< 0.27		0.01	< 0.06			< 0.05	< 0.02	0.03
	06/23/92	W1-12		< 0.28	< 0.01	< 0.01	0.06		0.11	< 0.05	< 0.03	0.11
	06/23/92	W1-15		< 0.28	< 0.01	< 0.01	< 0.06		0.13	< 0.05	< 0.03	0.05
	06/23/92	W1-18		< 0.28		0.01	< 0.06		0.21	< 0.05	< 0.03	0.03
	06/24/92	W1-0R		< 0.28		0.01	0.10		0.17	< 0.05	< 0.03	0.12
	06/24/92	W1-3R		< 0.27	< 0.01	< 0.01	< 0.06		0.15	< 0.05	< 0.02	0.04
	06/24/92	W1-6R		< 0.26	< 0.01	< 0.01	0.56		0.25	< 0.05	< 0.02	0.06
	06/24/92	W1-9R		< 0.26	< 0.01	< 0.01	< 0.05		0.18	< 0.05	< 0.02	0.04
	06/24/92	W1-12R		< 0.27		0.01	< 0.06		0.12	0.05	< 0.02	0.04
	06/24/92	W1-15R		< 0.27	< 0.01	< 0.01	0.07		0.30	< 0.05	< 0.02	0.44

Table B-13. (cont.)

Station/ Location	Date	Sample ID	Field Rep. #	Aluminum	Cadmium	Chromium	Copper	Cyanide	Iron	Lead	Nickel	Zinc
W1 South Basin	06/24/92	W1-18R		< 0.27	< 0.01		0.06		0.16	< 0.05	< 0.03	0.06
	07/21/92	W1-0		< 0.27	< 0.01	< 0.06			0.17	< 0.05	< 0.03	0.01
	07/21/92	W1-3		< 0.28	< 0.01	< 0.06			0.15	< 0.05	< 0.03	0.02
	07/21/92	W1-6	1	< 0.28	< 0.01	< 0.06			0.15	< 0.05	< 0.03	0.01
	07/21/92	W1-6	2	< 0.28	< 0.01	< 0.06				< 0.05	< 0.03	0.02
	07/21/92	W1-6	3	< 0.28	< 0.01	< 0.06				< 0.05	< 0.03	0.02
	07/21/92	W1-9		< 0.25	< 0.01	< 0.05			0.14	< 0.04	< 0.02	0.02
	07/21/92	W1-12		< 0.26	< 0.01	< 0.05			0.10	< 0.05	< 0.02	0.02
	07/21/92	W1-15		< 0.27	0.01	< 0.06			0.16	< 0.05	< 0.02	0.02
	07/21/92	W1-18		< 0.27	< 0.01	0.09			0.20	< 0.05	< 0.02	0.02
	07/22/92	W1-0R		< 0.28	< 0.01	0.06			0.13	< 0.05	< 0.03	0.41
	07/22/92	W1-3R		< 0.28	< 0.01	< 0.06			0.16	< 0.05	< 0.03	0.01
	07/22/92	W1-6R		< 0.29	< 0.01	< 0.06			0.21	< 0.05	< 0.03	0.02
	07/22/92	W1-9R		< 0.26	< 0.01	< 0.05			0.12	< 0.05	< 0.02	0.02
	07/22/92	W1-12R		< 0.26	0.01	< 0.05		< 0.13	< 0.13	< 0.05	< 0.02	0.03
	07/22/92	W1-15R		< 0.27	< 0.01	< 0.06		< 0.13	< 0.13	< 0.05	< 0.02	0.03 (0.
	07/22/92	W1-18R		< 0.28	< 0.01	< 0.06			0.25	< 0.05	< 0.03	0.02
	08/25/92	W1-0		< 0.31	0.01	< 0.07			0.11	< 0.06	< 0.03	0.06
	08/25/92	W1-3		< 0.28	< 0.01	< 0.06			0.26	< 0.05	< 0.03	0.12
	08/25/92	W1-6		< 0.29	< 0.01	< 0.06			0.11	< 0.05	0.03	0.05
	08/25/92	W1-9	1	< 0.28	< 0.01	< 0.06			0.45	0.06	< 0.03	0.53
	08/25/92	W1-9	2	< 0.29	< 0.01	< 0.06				0.06	< 0.03	0.27
	08/25/92	W1-9	3	< 0.29	< 0.01	< 0.06				< 0.05	< 0.03	0.05
	08/25/92	W1-12		< 0.27	< 0.01	< 0.06			0.11	0.07	< 0.03	0.05
	08/25/92	W1-15		< 0.28	< 0.01	< 0.06			0.61	< 0.05	< 0.03	0.08
	08/25/92	W1-18		< 0.29	< 0.01	< 0.06			0.66	0.08	< 0.03	0.03
	09/22/92	W1-0		< 0.27	< 0.01	< 0.06			0.65	0.09	< 0.02	0.05
	09/22/92	W1-3		< 0.28	< 0.01	< 0.06			0.11	< 0.05	< 0.03	0.01
	09/22/92	W1-6		1.06 *	< 0.27	< 0.01	< 0.06	< 1.9 *	0.18	0.06	< 0.02	0.01
	09/22/92	W1-9		< 0.28	< 0.01	< 0.06			0.39	< 0.05	< 0.03	0.01
	09/22/92	W1-12		1.19 *	< 0.26	< 0.01	< 0.05	< 1.9 *	0.28	< 0.05	< 0.02	0.04 (0.
	09/22/92	W1-15		< 0.27	< 0.01	< 0.06			0.89	< 0.05	< 0.02	0.05
	09/22/92	W1-18		< 0.27	< 0.01	< 0.06			0.56	< 0.05	< 0.02	< 0.01
	10/12/92	W1-3	1	< 0.27	< 0.01	< 0.08			0.25	< 0.05	0.04	0.04
	10/12/92	W1-3	2	< 0.25	< 0.01	0.08				< 0.04	0.04	0.03
	10/12/92	W1-3	3	< 0.27	< 0.01	< 0.08				0.11 (<0.05)	< 0.03	0.08 (0.
	10/12/92	W1-9		< 0.26	0.02	< 0.08			0.25	0.19	< 0.03	0.04
	10/12/92	W1-15		< 0.25	< 0.01	< 0.08			0.81	< 0.04	< 0.03	0.02
	11/16/92	W1-3		< 0.27	< 0.01	< 0.08			0.20	< 0.05	< 0.03	0.02
	11/16/92	W1-9	1	< 0.26	< 0.01	< 0.08			0.19	< 0.05	< 0.03	0.01
	11/16/92	W1-9	2	< 0.26	< 0.01	0.08				< 0.05	< 0.03	0.02
	11/16/92	W1-9	3	< 0.27	< 0.01	< 0.08				< 0.05	< 0.03	0.01
	11/16/92	W1-15		0.38	0.02	< 0.08			0.21	< 0.05	< 0.03	0.01

Table B-13. (cont.)

Station/ Location	Date	Sample ID	Field Rep. #	Aluminum	Cadmium	Chromium	Copper	Cyanide	Iron	Lead	Nickel	Zinc
W2 North Basin	04/08/92	W2-3		< 0.29	< 0.02		0.06		0.33	0.40	< 0.04	0.04
	04/08/92	W2-9		< 0.28	< 0.02		0.03 (0.04)		0.28	0.14 (0.20)	< 0.04	0.03 (0.
	04/08/92	W2-15		< 0.28	< 0.01		0.06		0.24	0.14	< 0.04	0.04
	05/26/92	W2-0		< 0.27	< 0.01	< 0.03			0.11	< 0.05	< 0.04	0.15
	05/26/92	W2-3		< 0.32	< 0.02	< 0.03			< 0.05	< 0.06	< 0.05	0.01
	05/26/92	W2-6		< 0.27	< 0.01	0.03			0.10	0.06	< 0.04	0.01
	05/26/92	W2-9		< 0.26	< 0.01	0.03			0.14	< 0.05	< 0.04	0.01
	05/26/92	W2-12		< 0.28	< 0.01	0.03			0.14	< 0.06	< 0.04	0.15
	05/26/92	W2-15		< 0.28	< 0.01	0.04			0.09	< 0.05	< 0.04	0.02
	05/26/92	W2-18		< 0.29	< 0.02	< 0.03			0.12	< 0.05	< 0.04	0.02
	06/23/92	W2-0		< 0.26	0.01	< 0.05			0.17	< 0.05	< 0.02	0.24
	06/23/92	W2-3		< 0.27	< 0.01	0.09			0.15	0.10	< 0.02	0.07
	06/23/92	W2-6		< 0.26	< 0.01	0.07			0.17	< 0.05	0.03	0.06
	06/23/92	W2-9		< 0.26	0.01	< 0.06			0.15	< 0.05	< 0.02	0.06
	06/23/92	W2-12		< 0.26	< 0.01	0.07			0.14	< 0.05	< 0.02	0.07
	06/23/92	W2-15		< 0.27	< 0.01	0.06			0.10	0.05	< 0.02	0.05
	06/23/92	W2-18		< 0.27	< 0.01	< 0.06			0.12	< 0.05	< 0.03	0.11
	07/21/92	W2-0		< 0.28	< 0.01	0.06			0.13	< 0.05	< 0.03	0.02
	07/21/92	W2-3		< 0.28	< 0.01	< 0.06			0.13	< 0.05	< 0.03	0.06
	07/21/92	W2-6		< 0.27	< 0.01	< 0.06			0.22	< 0.05	< 0.02	0.03
	07/21/92	W2-9		< 0.26	< 0.01	< 0.05			0.19	< 0.05	0.02	0.03
	07/21/92	W2-12		< 0.26	< 0.01	< 0.05			0.13	< 0.05	< 0.02	0.03
	07/21/92	W2-15		< 0.26	< 0.01	< 0.06			0.16	< 0.05	< 0.02	0.03
	07/21/92	W2-18		< 0.27	< 0.01	< 0.06			0.217	< 0.05	< 0.02	0.03
	08/24/92	W2-0		< 0.29	< 0.01	< 0.06			0.07	< 0.05	< 0.03	0.03
	08/24/92	W2-3		< 0.29	0.01	< 0.06			0.207	0.08 (<0.05)	< 0.03	0.06 (0.
	08/24/92	W2-6		< 0.30	< 0.01	< 0.06			0.083	< 0.05	< 0.03	0.04
	08/24/92	W2-9		< 0.28	< 0.01	< 0.06			0.08	< 0.05	< 0.03	0.03
	08/24/92	W2-12		< 0.29	< 0.01	< 0.06			0.107	< 0.05	< 0.03	0.02
	08/24/92	W2-15		< 0.29	0.01	< 0.06			0.73	< 0.05	< 0.03	0.14
	08/24/92	W2-18		< 0.40	< 0.01	< 0.09			0.36	< 0.08	< 0.04	0.13
	09/21/92	W2-0		< 0.27	< 0.01	< 0.06			0.10	< 0.05	< 0.02	0.03
	09/21/92	W2-3		< 0.27	< 0.01	< 0.06			0.13	< 0.05	< 0.03	0.08 (0.
	09/21/92	W2-6		0.92 *	< 0.27	< 0.01	< 0.06	32.9 *	0.08	< 0.05	< 0.02	< 0.01
	09/21/92	W2-9	1		< 0.26	< 0.01	< 0.06		0.15	< 0.05	< 0.02	0.08
	09/21/92	W2-9	2		< 0.28	< 0.01	< 0.06			0.07	< 0.03	0.03
	09/21/92	W2-9	3		< 0.27	< 0.01	< 0.06			< 0.05	< 0.02	0.04
	09/21/92	W2-12		1.12 *	< 0.27	< 0.01	< 0.06	< 1.9 *	0.42	< 0.05	< 0.02	< 0.01
	09/21/92	W2-15			< 0.27	< 0.01	< 0.06		0.42	0.05	< 0.02	< 0.01
	09/21/92	W2-18			< 0.28	< 0.01	< 0.06		0.15	0.07	< 0.03	0.01

Table B-13. (cont.)

Station/ Location	Date	Sample ID	Field Rep. #	Aluminum	Cadmium	Chromium	Copper	Cyanide	Iron	Lead	Nickel	Zinc
W2 North Basin	10/12/92	W2-3		< 0.26	< 0.01	< 0.08			0.21	< 0.05	< 0.03	0.02
	10/12/92	W2-9		< 0.25	< 0.01	< 0.08			0.18	0.06	< 0.03	0.04
	10/12/92	W2-15		< 0.25	< 0.01	< 0.08			1.2 *	< 0.04	< 0.03	0.05
	11/16/92	W2-3			0.41 (< 0.26)	0.01	< 0.08		0.17	< 0.05	< 0.03	0.01
	11/16/92	W2-9			0.36	< 0.01	< 0.08		0.17	< 0.05	< 0.03	0.05
	11/16/92	W2-15			0.35	< 0.01	< 0.08		0.17	< 0.05	< 0.03	0.01

Notes: () Standard in TAMS database

< Ratio is based on detection limit, because metal was not detected

* Ratio >1.0, denoting exceedance of water-quality standard

^a Water quality standards based on NYSDEC (1999) for water classes A-C. Sample-specific hardness Standards are presented in Table B-11.

There are no aquatic based NYSDEC standard for Barium and Manganese.

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-14. Summary of Hardness Values for Metro Discharge and Tributary and Lake Water in 1992

Station/Location	Month	Field Replicate Number	Hardness (mg/L as CaCO ₃)	Month	Sample Type	Field Replicate Number	Hardness (mg/L as CaCO ₃)
Tributary Water and Metro Discharge							
Low-Flow Conditions				High-Flow Conditions^a			
W3E	September		244	August	Composite		552
Metro Outlet	October		270	September	Composite	1	222
	December		247	September	Composite	2	238
				September	Composite	3	229
				October	Composite		199
				November	Composite		250
				December	Composite		257
				August	Grab		659
				December	Grab		241
				October	Grab		214
				September	Grab		267
W4	April		341	August	Composite		235
Onondaga Creek	May		313	September	Composite		255
	June		492	October	Composite		335
	July		359	November	Composite		407
	August		287	December	Composite		302
	September		456				
	October		327	August	Grab		345
	November		290	September	Grab		262
	December		282	October	Grab		352
				November	Grab		399
				December	Grab		310
W5	April		742	August	Composite		135
Harbor Brook	May		844	September	Composite		192
	June		815	October	Composite		517
	July		744	November	Composite		448
	August	1	612	December	Composite		372
	August	2	619				
	August	3	607	September	Grab		287
	September		677	October	Grab		479
	October		669	November	Grab		703
	November		564	December	Grab		424
	December		614				
W6	April		398	August	Composite		205
Ley Creek	May		233	October	Composite	1	280
	June		530	October	Composite	2	265
	July		443	October	Composite	3	272
	August		327	December	Composite		262
	September		367				
	October		377	August	Grab		150
	November		292	September	Grab		297
	December		357	October	Grab		282
				December	Grab		295
W7	April		431	August	Composite		312
East Flume	May	1	333	September	Composite		280
	May	2	360	October	Composite		301
	May	3	389	November	Composite	1	554
	June		544	November	Composite	2	537
	July		402	November	Composite	3	560
	August		387	December	Composite		462
	September		434				
	October	1	539	August	Grab		365

Table B-14. (cont.)

Station/Location	Month	Field Replicate Number	Hardness (mg/L as CaCO ₃)	Month	Sample Type	Field Replicate Number	Hardness (mg/L as CaCO ₃)
	October	2	542	September	Grab		332
	October	3	552	October	Grab		521
	November		367	November	Grab		521
W7	December	1	400	December	Grab		459
East Flume	December	2	400				
W8	April		424	August	Composite	1	218
Tributary 5A	May		369	August	Composite	2	203
	June		320	August	Composite	3	204
	July	1	284	September	Composite		202
	July	2	285	October	Composite		283
	July	3	279	November	Composite		271
	August		262	December	Composite	1	320
	September		227	December	Composite	2	315
	October		270	December	Composite	3	322
	November	1	224				
	November	2	229	August	Grab		179
	November	3	229	September	Grab		235
	December		223	October	Grab		248
				November	Grab		342
				December	Grab		342
W9	June		449	December	Composite		187
Bloody Brook							
W10	April	1	837	August	Composite		689
Ninemile Creek	April	2	846	September	Composite		522
	April	3	849	October	Composite		811
	May		1347	December	Composite		777
	June		1661				
	July		557	August	Grab		822
	August		582	September	Grab		634
	September		1221	October	Grab		895
	October		729	December	Grab		809
	November		764				
	December		851				
W11	June		582	December	Composite		262
Sawmill Creek							
W12	April		467	August	W12-1		170
Lake Outlet	May		486	September	W12-1		221
	June		265	October	W12-1		434
	July		440	November	W12-1		510
	August		385	December	W12-1		427
	September		365				
	October		410	August	W12-5		170
	November		400	September	W12-5		282
	December		452	October	W12-5		432
				November	W12-5		498
				December	W12-5		427
				August	W12-10		367
				September	W12-10		382
				October	W12-10		444
				November	W12-10		513
				December	W12-10		439
				August	W12-15		417
				September	W12-15		375
				October	W12-15		417
				November	W12-15		507
				December	W12-15		434

Table B-14. (cont.)

Station/Location	Month	Sample Type	Field Rep. #	Hardness (mg/L as CaCO ₃)	Station/Location	Month	Sample Type	Field Rep. #	Hardness (mg/L as CaCO ₃)
Lake Water									
W1	April	W1-3		494	W2	April	W2-3		466
South Basin	April	W1-9	1	439	North Basin	April	W2-9		468
	April	W1-9	2	457		April	W2-15		486
	April	W1-9	3	463					
	April	W1-15		468		May	W2-0		511
						May	W2-3		409
	April	W1-9R		501		May	W2-6		500
						May	W2-9		532
	May	W1-0		485		May	W2-12		488
	May	W1-3		472		May	W2-15		486
	May	W1-6		481		May	W2-18		461
	May	W1-9		486					
	May	W1-12		496		June	W2-0		517
	May	W1-15	1	493		June	W2-3		496
	May	W1-15	2	499		June	W2-6		523
	May	W1-15	3	499		June	W2-9		512
	May	W1-18		496		June	W2-12		520
						June	W2-15		502
	May	W1-0R		481		June	W2-18		489
	May	W1-3R		478					
	May	W1-6R		483		July	W2-0		485
	May	W1-9R		487		July	W2-3		485
	May	W1-12R		486		July	W2-6		503
	May	W1-15R		483		July	W2-9		524
	May	W1-18R		487		July	W2-12		525
						July	W2-15		515
	June	W1-0		506		July	W2-18		497
	June	W1-3		500					
	June	W1-6		478		August	W2-0		462
	June	W1-9	1	504		August	W2-3		466
	June	W1-9	2	495		August	W2-6		442
	June	W1-9	3	507		August	W2-9		473
	June	W1-12		483		August	W2-12		464
	June	W1-15		473		August	W2-15		462
	June	W1-18		477		August	W2-18		308
	June	W1-0R		476		September	W2-0		492
	June	W1-3R		494		September	W2-3		489
	June	W1-6R		513		September	W2-6		492
	June	W1-9R		520		September	W2-9	1	512
	June	W1-12R		493		September	W2-9	2	484
	June	W1-15R		495		September	W2-9	3	500
	June	W1-18R		489		September	W2-12		505
						September	W2-15		505
	July	W1-0		490		September	W2-18		488
	July	W1-3		484					
	July	W1-6	1	478		October	W2-3		526
	July	W1-6	2	478		October	W2-9		541
	July	W1-6	3	477		October	W2-15		552
	July	W1-9		540					
	July	W1-12		523		November	W2-3		515
	July	W1-15		502		November	W2-9		512
	July	W1-18		493		November	W2-15		518
	July	W1-0R		481					
	July	W1-3R		484					
	July	W1-6R		466					
	July	W1-9R		531					
	July	W1-12R		518					
	July	W1-15R		509					
	July	W1-18R		488					

Table B-14. (cont.)

Station/Location	Month	Sample Type	Field Rep. #	Hardness (mg/L as CaCO ₃)	Station/Location	Month	Sample Type	Field Rep. #	Hardness (mg/L as CaCO ₃)
Lake Water									
W1									
South Basin	August	W1-0		418					
	August	W1-3		472					
	August	W1-6		463					
	August	W1-9	1	483					
	August	W1-9	2	459					
	August	W1-9	3	450					
	August	W1-12		489					
	August	W1-15		476					
	August	W1-18		458					
	September	W1-0		510					
	September	W1-3		488					
	September	W1-6		495					
	September	W1-9		488					
	September	W1-12		524					
	September	W1-15		499					
	September	W1-18		495					
	October	W1-3	1	502					
	October	W1-3	2	552					
	October	W1-3	3	506					
	October	W1-9		525					
	October	W1-15		554					
	November	W1-3		510					
	November	W1-9	1	528					
	November	W1-9	2	519					
	November	W1-9	3	500					
	November	W1-15		515					

Notes: Hardness Values are not in TAMS database for 1992.

^a W3 E high-flow grab-sample months are not listed chronologically.

Table B-15. Summary of Concentrations of BTX Compounds in Metro Discharge and Tributary Water During Base-Flow Conditions in 1992 and Comparison with USEPA Water Quality Standards

Station/Location	Date	Station ID	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W3	09/15/92		--	3.1	--
Metro Outlet	10/17/92	Composite	--	--	--
	10/17/92	Grab	--	--	--
W4	06/18/92		--	--	--
Onondaga Creek	09/15/92		--	--	--
	10/16/92	Composite	--	--	--
	10/16/92	Grab	--	--	--
W5	05/25/92		--	--	--
Harbor Brook	06/18/92		--	--	--
	08/16/92		0.7	1.0	--
	09/18/92		1.2	1.8	2.8 *
	10/05/92		1.7	2.6	3.6 *
	11/09/92		1.1	1.7	2.8 *
	12/07/92		--	1.5	2.0 *
W6	06/18/92		--	--	--
Ley Creek	08/15/92		--	--	--
	09/16/92		--	--	--
W7	04/10/92		15	2.5	1.4
East Flume	05/27/92		--	--	--
	07/29/92		--	--	--
	08/17/92		--	--	--
	9/26/1992	Composite	--	--	--
	9/26/1992	Grab	--	--	--
	10/05/92		--	--	--
	10/24/1992	Composite	--	--	--
	10/24/1992	Grab	--	--	--
	11/09/92		--	--	--

Table B-15. (cont.)

Station/Location	Date	Station ID	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W8	05/25/92		--	--	--
Tributary 5A	06/18/92		--	--	--
	08/17/92		--	--	--
	09/18/92		17	2	1.1
	10/05/92		34	4.2	2.2 *
	11/09/92		2.6	0.7	0.83
	12/07/92		--	--	1.8 *
	W9	06/19/92		--	--
Bloody Brook					
W10	05/26/92		--	--	--
Ninemile Creek	06/17/92		--	--	--
	09/16/92		--	--	--
W11	06/19/92		--	--	--
Sawmill Creek					
W12	06/19/92		--	--	--
Lake Outlet	09/17/92		--	--	--

Notes:

- Compound not detected
- * Exceeds USEPA (1996) ecotox thresholds. Thresholds are:
Benzene - 46 µg/L
Xylenes - 1.8 µg/L
Toluene - 130 µg/L
- ** Exceeds USEPA (1986) acute water quality criteria. Criteria are:
Benzene - 5,300 µg/L
Toluene - 17,500 µg/L

Sources: USEPA (1996). Ecotox thresholds. EPA/540/F-95/038. USEPA, Office of Solid Waste and Emergency Response, Washington, DC.
USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-16. Summary of Concentrations of BTX Compounds in Tributary Water During Intermediate-Flow Conditions in 1992 and Comparison with USEPA Water Quality Standards

Station/Location	Date	Field Replicate Number	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W4 Onondaga Creek	05/25/92		--	--	--
	07/28/92		--	--	--
	08/15/92		--	--	--
	08/28/92	Grab	--	--	--
	09/26/92	Composite	--	--	--
	09/26/92	Grab	--	--	--
	12/16/92	Grab	--	--	--
W5 Harbor Brook	07/29/92		--	--	--
	10/25/92	Composite	--	--	--
	10/25/92	Grab	--	--	--
W6 Ley Creek	04/22/92		--	--	--
	05/25/92		--	--	--
	07/28/92		--	--	--
	10/17/92	Composite	--	--	--
	10/17/92	Grab	--	--	--
W7 East Flume	8/28/1992	Grab	--	--	--
	8/29/1992	Composite	--	--	--
	09/18/92		--	--	--
	11/22/1992	Composite	--	--	--
	11/22/1992	Grab	--	--	--

Table B-16. (cont.)

Station/Location	Date	Field Replicate Number	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W8	07/28/92		--	--	--
Tributary 5A	10/24/92	Composite	--	--	--
	10/24/92	Grab	--	--	--
W10	08/15/92		--	--	--
Ninemile Creek	08/28/92	Grab	--	--	--
	10/24/92	Composite	--	--	--
	10/24/92	Grab	--	--	--
	12/16/92	Composite	--	--	--
	12/16/92	Grab	--	--	--
W12	05/27/92		--	--	--
Lake Outlet	07/30/92		--	--	--
	08/18/92		--	--	--
	10/18/92	1	--	--	--
	10/18/92	5	--	--	--
	10/18/92	10	--	--	--
	10/18/92	15	--	--	--

Notes:

- Compound not detected
- * Exceeds USEPA (1996) ecotox thresholds. Thresholds are:
Benzene - 46 µg/L
Xylenes - 1.8 µg/L
Toluene - 130 µ g/L
- ** Exceeds USEPA (1986) acute water quality criteria. Criteria are:
Benzene - 5,300 µ g/L
Toluene - 17,500 µ g/L

Sources: USEPA (1996). Ecotox thresholds. EPA/540/F-95/038. USEPA, Office of Solid Waste and Emergency Response, Washington, DC.
USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Wa Regulations and Standards, Washington, DC.

Table B-17. Summary of Concentrations of BTX Compounds in Metro Discharge and Tributary Water During High-Flow Conditions in 1992 and Comparison with USEPA Water Quality Standards

Station/Location	Date	Sample ID	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W3 Metro Outlet	08/29/92	Composite	--	--	--
	09/26/92	Composite	--	--	--
	11/23/92	Composite	--	--	--
	12/18/92	Composite	--	--	--
	08/29/92	Grab	--	--	--
	09/26/92	Grab	--	--	--
	11/23/92	Grab	--	--	--
	12/18/92	Grab	--	--	--
W4 Onondaga Creek	04/22/92		--	--	--
	08/29/92	Composite	--	--	--
	11/23/92	Composite	--	--	--
	11/23/92	Grab	--	--	--
	12/17/92	Composite	--	--	--
W5 Harbor Brook	04/10/92		--	2.1	1.7
	08/28/92	Grab	--	--	--
	08/29/92	Composite	--	--	--
	09/26/92	Composite	--	--	--
	09/26/92	Grab	--	--	--
	11/23/92	Composite	--	--	--
	11/23/92	Grab	--	--	--
	12/17/92	Composite	--	--	--
	12/17/92	Grab	--	--	--
W6 Ley Creek	08/29/92	Composite	--	--	--
	12/17/92	Composite	--	--	--
	08/29/92	Grab	--	--	--
	12/17/92	Grab	--	--	--
W7 East Flume	06/17/92		--	--	--
	12/07/92		--	--	1.8
	12/16/92	Composite	--	--	1.7
	12/16/92	Grab	--	--	1.6
W8 Tributary 5A	04/10/92		60 *	5.1	2.4 *
	08/28/92	Grab	--	--	--
	08/29/92	Composite	--	--	--
	09/26/92	Composite	--	--	--
	09/26/92	Grab	--	--	--
	11/22/92	Composite	--	--	--
	11/22/92	Grab	--	--	--
	12/17/92	Composite	--	--	0.7
12/17/92	Grab	--	--	--	

Table B-17. (cont.)

Station/Location	Date	Sample ID	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W9					
Bloody Brook	12/17/92	Composite	--	--	--
W10					
Ninemile Creek	04/24/92		--	--	--
	07/27/92		--	--	--
	08/29/92	Composite	--	--	--
	09/26/92	Composite	--	--	--
	09/26/92	Grab	--	--	--
W11					
Sawmill Creek	12/17/92	Composite	--	--	--
W12					
Lake Outlet	04/25/92		--	--	--
	08/29/92	1	--	--	--
	08/29/92	5	--	--	--
	08/29/92	15	--	--	--
	09/27/92	1	--	--	--
	09/27/92	5	--	--	--
	09/27/92	10	--	--	--
	09/27/92	15	--	--	--
	11/24/92	1	--	--	--
	11/24/92	5	--	--	--
	11/24/92	10	--	--	--
	11/24/92	15	--	--	--
	12/18/92	1	--	--	--
	12/18/92	5	--	--	--
	12/18/92	10	--	--	--
12/18/92	15	--	--	--	

Notes: -- Compound not detected

* Exceeds USEPA (1996) ecotox thresholds. Thresholds are:

Benzene - 46 µg/L

Xylenes - 1.8 µg/L

Toluene - 130 µg/L

** Exceeds USEPA (1986) acute water quality criteria. Criteria are:

Benzene - 5,300 µg/L

Toluene - 17,500 µg/L

Sources: USEPA (1996). Ecotox thresholds. EPA/540/F-95/038. USEPA, Office of Solid Waste and Response, Washington, DC.

USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-18. Summary of Concentrations of BTX Compounds in Lake Water in 1992 and Comparison with USEPA Water Quality Standards

Station/Location	Month	Sample Location ^a	Field Replicate Number	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W1 South Basin	04/13/92	W1-3		--	--	--
	04/13/92	W1-9	1	--	--	--
	04/13/92	W1-9	2	--	--	--
	04/13/92	W1-9	3	--	--	--
	04/13/92	W1-15		--	--	--
	04/13/92	W1R-9		--	--	--
	05/27/92	W1-0		--	--	--
	05/27/92	W1-3		--	--	--
	05/27/92	W1-6		--	--	--
	05/27/92	W1-9		--	--	--
	05/27/92	W1-12		--	--	--
	05/27/92	W1-15	1	--	--	--
	05/27/92	W1-15	2	--	--	--
	05/27/92	W1-15	3	--	--	--
	05/27/92	W1-18		--	--	--
	05/28/92	W1R-0		--	--	--
	05/28/92	W1R-3		--	--	--
	05/28/92	W1R-6		--	--	--
	05/28/92	W1R-9		--	--	--
	05/28/92	W1R-12		--	--	--
	05/28/92	W1R-15		--	--	--
	05/28/92	W1R-18		--	--	--
	06/23/92	W1-0		--	--	--
	06/23/92	W1-3		--	--	--
	06/23/92	W1-6		--	--	--
	06/23/92	W1-9	1	--	--	--
	06/23/92	W1-9	2	--	--	--
	06/23/92	W1-9	3	--	--	--
	06/23/92	W1-12		--	--	--
	06/23/92	W1-15		--	--	--
	06/23/92	W1-18		--	--	--
	06/24/92	W1R-0		--	--	--
	06/24/92	W1R-3		--	--	--
06/24/92	W1R-6		--	--	--	
06/24/92	W1R-9		--	--	--	
06/24/92	W1R-12		--	--	--	
06/24/92	W1R-15		--	--	--	
06/24/92	W1R-18		--	--	--	

Table B-18. (cont.)

Station/Location	Month	Sample Location ^a	Field Replicate Number	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W1	07/21/92	W1-0		--	--	--
South Basin	07/21/92	W1-3		--	--	--
	07/21/92	W1-6	1	--	--	--
	07/21/92	W1-6	2	--	--	--
	07/21/92	W1-6	3	--	--	--
	07/21/92	W1-9		--	--	--
	07/21/92	W1-12		--	--	--
	07/21/92	W1-15		--	--	--
	07/21/92	W1-18		--	--	--
	07/22/92	W1R-0		--	--	--
	07/22/92	W1R-3		--	--	--
	07/22/92	W1R-6		--	--	--
	07/22/92	W1R-9		--	--	--
	07/22/92	W1R-12		--	--	--
	07/22/92	W1R-15		--	--	--
	07/22/92	W1R-18		--	--	--
	08/25/92	W1-0		--	--	--
	08/25/92	W1-3		--	--	--
	08/25/92	W1-6		--	--	--
	08/25/92	W1-9	1	--	--	--
	08/25/92	W1-9	2	--	--	--
	08/25/92	W1-9	3	--	--	--
	08/25/92	W1-12		--	--	--
	08/25/92	W1-15		--	--	--
	08/25/92	W1-18		--	--	--
	09/22/92	W1-0		--	--	--
	09/22/92	W1-3		--	--	--
	09/22/92	W1-6		--	--	--
	09/22/92	W1-9		--	--	--
	09/22/92	W1-12		--	--	--
	09/22/92	W1-15		--	--	--
	09/22/92	W1-18		--	--	--
W2	04/08/92	W2-3		--	--	--
North Basin	04/08/92	W2-9		--	--	--
	04/08/92	W2-15		--	--	--
	05/26/92	W2-0		--	--	--
	05/26/92	W2-3		--	--	--
	05/26/92	W2-6		--	--	--
	05/26/92	W2-9		--	--	--
	05/26/92	W2-12		--	--	--
	05/26/92	W2-15		--	--	--

Table B-18. (cont.)

Station/Location	Month	Sample Location ^a	Field Replicate Number	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W2 North Basin	05/26/92	W2-18		--	--	--
	06/23/92	W2-0		--	--	--
	06/23/92	W2-3		--	--	--
	06/23/92	W2-6		--	--	--
	06/23/92	W2-9		--	--	--
	06/23/92	W2-12		--	--	--
	06/23/92	W2-15		--	--	--
	06/23/92	W2-18		--	--	--
	07/21/92	W2-0		--	--	--
	07/21/92	W2-3		--	--	--
	07/21/92	W2-6		--	--	--
	07/21/92	W2-9		--	--	--
	07/21/92	W2-12		--	--	--
	07/21/92	W2-15		--	--	--
	07/21/92	W2-18		--	--	--
	08/24/92	W2-0		--	--	--
	08/24/92	W2-3		--	--	--
	08/24/92	W2-6		--	--	--
	08/24/92	W2-9		--	--	--
	08/24/92	W2-12		--	--	--
	08/24/92	W2-15		--	--	--
	08/24/92	W2-18		--	--	--
	09/21/92	W2-0		--	--	--
	09/21/92	W2-3		--	--	--
	09/21/92	W2-6		--	--	--
	09/21/92	W2-9		1	--	--
	09/21/92	W2-9		2	--	--
	09/21/92	W2-9		3	--	--
	09/21/92	W2-12		--	--	--
	09/21/92	W2-15		--	--	--
	09/21/92	W2-18		--	--	--

Notes: -- Compound not detected

* Exceeds USEPA (1996) ecotox thresholds. Thresholds are:

Benzene - 46 µg/L

Toluene - 130 µg/L

Xylenes - 1.8 µg/L

** Exceeds USEPA (1986) acute water quality criteria. Criteria are:

Benzene - 5,300 µg/L

Toluene - 17,500 µg/L

^a Sampling stations were W1, W1R, and W2. Station W1R was a replicate station located near Station W1. The number after each dash indicates sampling depth in meters.

Sources: USEPA (1996). Ecotox thresholds. EPA/540/F-95/038. USEPA, Office of Solid Waste and Emergency Response, Washington, DC.

USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-19. Summary of Concentrations of Chlorinated Benzenes in Metro Discharge and Tributary Water During Base-Flow Conditions in 1992 and Comparison with New York State and USEPA Water Quality Standards

Station/Location	Date	Sample ID	Monochloro- benzene (µg/L)	1,2-Di-chloro- benzene (µg/L)	1,3-Di-chloro- benzene (µg/L)	1,4-Di-chloro- benzene (µg/L)	1,2,3-Tri- chloro- benzene (µg/L)	1,2,4-Tri- chloro- benzene (µg/L)	1,3,5-Tri- chloro- benzene (µg/L)
W3	09/15/92		--	--	--	--	--	--	--
Metro Outlet	10/17/92	Composite	--	--	--	--	--	--	--
	10/17/92	Grab	--	--	--	--	--	--	--
W4	06/18/92		--	--	--	--	--	--	--
Onondaga Creek	09/15/92		--	--	--	--	--	--	--
	10/16/92	Composite	--	--	--	--	--	--	--
	10/16/92	Grab	--	--	--	--	--	--	--
W5	05/25/92		--	--	--	--	--	--	--
Harbor Brook	06/18/92		--	--	--	--	--	--	--
	08/16/92		--	--	--	--	--	--	--
	09/18/92		--	--	--	--	--	--	--
	10/05/92		--	--	--	--	--	--	--
	11/09/92		--	--	--	--	--	--	--
	12/07/92		--	--	--	--	--	--	--
W6	06/18/92		--	--	--	--	--	--	--
Ley Creek	08/15/92		--	--	--	--	--	--	--
	09/16/92		--	--	--	--	--	--	--
W7	04/10/92		7.6	10	--	13	--	--	--
East Flume	05/27/92		--	1.2	--	8.5	--	--	--
	07/29/92		--	3.4	--	7.7	--	--	--
	08/17/92		--	2	--	4.6	--	--	--
	9/26/1992	Composite	--	--	--	--	--	--	--
	9/26/1992	Grab	--	--	--	--	--	--	--
	10/05/92		--	--	--	13	--	--	--
	10/24/1992	Composite	--	--	--	5.1	--	--	--
	10/24/1992	Grab	--	--	--	7.7	--	--	--
	11/09/92		--	--	--	13	--	--	--

Table B-19. (cont.)

Station/Location	Date	Sample ID	Monochloro- benzene (µg/L)	1,2-Di-chloro- benzene (µg/L)	1,3-Di-chloro- benzene (µg/L)	1,4-Di-chloro- benzene (µg/L)	1,2,3-Tri- chloro- benzene (µg/L)	1,2,4-Tri- chloro- benzene (µg/L)	1,3,5-Tri- chloro- benzene (µg/L)
W8	05/25/92		--	--	--	--	--	--	--
Tributary 5A	06/18/92		--	--	--	--	--	--	--
	08/17/92		--	--	--	--	--	--	--
	09/18/92		--	--	--	--	--	--	--
	10/05/92		--	--	--	--	--	--	--
	11/09/92		--	--	--	--	--	--	--
	12/07/92		--	--	--	--	--	--	--
W9									
Bloody Brook	06/19/92		--	--	--	--	--	--	--
W10									
Ninemile Creek	05/26/92		--	--	--	--	--	--	--
	06/17/92		--	--	--	--	--	--	--
	09/16/92		--	--	--	--	--	--	--
W11									
Sawmill Creek	06/19/92		--	--	--	--	--	--	--
W12									
Lake Outlet	06/19/92		--	--	--	--	--	--	--
	09/17/92		--	--	--	--	--	--	--

Notes: -- Compound not detected

* Exceeds state chronic water quality standard of 5.0 µg/L for monochlorobenzene, dichlorobenzenes, and trichlorobenzenes (NYSDEC, 1999).

** Exceeds EPA acute ambient water quality criteria. Criteria are:

Monochlorobenzene - 250 µg/L (lowest observed effect level)

Dichlorobenzenes - 1,120 µg/L (lowest observed effect level)

Trichlorobenzenes - 250 µg/L (lowest observed effect level)

Sources: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 70

New York State Department of Environmental Conservation, Division of Water, Albany, NY.

USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-20. Summary of Concentrations of Chlorinated Benzenes in Tributary Water During Intermediate-Flow Conditions in 1992 and Comparison with New York State and USEPA Water Quality Standards

Station/Location	Date	Sample ID	Monochloro-benzene (µg/L)	1,2-Di-chloro-benzene (µg/L)	1,3-Di-chloro-benzene (µg/L)	1,4-Di-chloro-benzene (µg/L)	1,2,3-Trichloro-benzene (µg/L)	1,2,4-Trichloro-benzene (µg/L)	1,3,5-Trichloro-benzene (µg/L)
W4	05/25/92		--	--	--	--	--	--	--
Onondaga Creek	07/28/92		--	--	--	--	--	--	--
	08/15/92		--	--	--	--	--	--	--
	08/28/92	Grab	--	--	--	--	--	--	--
	09/26/92	Composite	--	--	--	--	--	--	--
	09/26/92	Grab	--	--	--	--	--	--	--
	12/16/92	Grab	--	--	--	--	--	--	--
W5	07/29/92		--	--	--	--	--	--	--
Harbor Brook	10/25/92	Composite	--	--	--	--	--	--	--
	10/25/92	Grab	--	--	--	--	--	--	--
W6	04/22/92		--	--	--	--	--	--	--
Ley Creek	05/25/92		--	--	--	--	--	--	--
	07/28/92		--	--	--	--	--	--	--
	10/17/92	Composite	--	--	--	--	--	--	--
	10/17/92	Grab	--	--	--	--	--	--	--
				--	--	--	--	--	--
W7	08/28/92	Grab	--	--	--	--	--	--	--
East Flume	08/29/92	Composite	--	--	--	--	--	--	--
	09/18/92		--	--	--	--	--	--	--
	11/22/92	Composite	--	--	--	2.2	--	0.95	--
	11/22/92	Grab	--	--	--	2.3	--	1.1	--
				--	--	--	--	--	--
W8	07/28/92		--	--	--	--	--	--	--
Tributary 5A	10/24/92	Composite	--	--	--	--	--	--	--
	10/24/92	Grab	--	--	--	--	--	--	--
W10									
Ninemile Creek	08/15/92		--	--	--	--	--	--	--
	08/28/92	Grab	--	--	--	--	--	--	--
	10/24/92	Composite	--	--	--	--	--	--	--
	10/24/92	Grab	--	--	--	--	--	--	--
	12/16/92	Composite	--	--	--	--	--	--	--
	12/16/92	Grab	--	--	--	--	--	--	--
W12	05/27/92		--	--	--	--	--	--	--
Lake Outlet	07/30/92		--	--	--	--	--	--	--
	08/18/92		--	--	--	--	--	--	--
	10/18/92	1	--	--	--	--	--	--	--
	10/18/92	5	--	--	--	--	--	--	--
	10/18/92	10	--	--	--	--	--	--	--
	10/18/92	15	--	--	--	--	--	--	--
				--	--	--	--	--	--

Notes: -- Compound not detected

* Exceeds state chronic water quality standard of 5.0 µg/L for monochlorobenzene, dichlorobenzenes, and trichlorobenzenes (NYSDEC, 1999).

** Exceeds EPA acute ambient water quality criteria. Criteria are:

Monochlorobenzene - 250 µg/L (lowest observed effect level)

Dichlorobenzenes - 1,120 µg/L (lowest observed effect level)

Trichlorobenzenes - 250 µg/L (lowest observed effect level)

Sources: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703.

New York State Department of Environmental Conservation, Division of Water, Albany, NY.

USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-21. Summary of Concentrations of Chlorinated Benzenes in Metro Discharge and Tributary Water During High-Flow Conditions in 1992 and Comparison with New York State and USEPA Water Quality Standards^a

Station/Location	Date	Sample ID	Monochloro- benzene (µg/L)	1,2-Di- chloro- benzene (µg/L)	1,3-Di-chloro- benzene (µg/L)	1,4-Di-chloro- benzene (µg/L)	1,2,3-Tri- chloro- benzene (µg/L)	1,2,4-Tri- chloro- benzene (µg/L)	1,3,5-Tri- chloro- benzene (µg/L)
W3	08/29/92	Composite	--	--	--	--	--	--	--
Metro Outlet	09/26/92	Composite	--	--	--	--	--	--	--
	11/23/92	Composite	--	--	--	--	--	--	--
	12/18/92	Composite	--	--	--	--	--	--	--
	08/29/92	Grab	--	--	--	--	--	--	--
	09/26/92	Grab	--	--	--	--	--	--	--
	11/23/92	Grab	--	--	--	--	--	--	--
	12/18/92	Grab	--	--	--	--	--	--	--
	W4	04/22/92		--	--	--	--	--	--
Onondaga Creek	08/29/92	Composite	--	--	--	--	--	--	
	11/23/92	Composite	--	--	--	--	--	--	
	11/23/92	Grab	--	--	--	--	--	--	
	12/17/92	Composite	--	--	--	--	--	--	
W5	04/10/92		--	--	--	--	--	--	
Harbor Brook	08/28/92	Grab	--	--	--	--	--	--	
	08/29/92	Composite	--	--	--	--	--	--	
	09/26/92	Composite	--	1	--	5.3	--	--	
	09/26/92	Grab	--	--	--	7.2	--	--	
	11/23/92	Composite	--	--	--	--	--	--	
	11/23/92	Grab	--	--	--	--	--	--	
	12/17/92	Composite	--	--	--	--	--	--	
	12/17/92	Grab	--	--	--	--	--	--	
W6	08/29/92	Composite	--	--	--	--	--	--	
Ley Creek	12/17/92	Composite	--	--	--	--	--	--	
	08/29/92	Grab	--	--	--	--	--	--	
	12/17/92	Grab	--	--	--	--	--	--	
W7	06/17/92		--	5.2	--	7.8	--	--	
East Flume	12/07/92		--	1.1	1.0	20	--	2.4	
	12/16/92	Composite	--	1.8	--	16	--	2.2	
	12/16/92	Grab	--	--	--	16	--	1.9	
W8	04/10/92		--	--	--	--	--	--	
Tributary 5A	08/28/92	Grab	--	--	--	--	--	--	
	08/29/92	Composite	--	--	--	--	--	--	
	09/26/92	Composite	--	--	--	--	--	--	
	09/26/92	Grab	--	--	--	--	--	--	
	11/22/92	Composite	--	--	--	--	--	--	
	11/22/92	Grab	--	--	--	--	--	--	
	12/17/92	Composite	--	--	--	--	--	--	
	12/17/92	Grab	--	--	--	--	--	--	
W9	12/17/92	Composite	--	--	--	--	--	--	
Bloody Brook									
W10	04/24/92		--	--	--	--	--	--	
Ninemile Creek	07/27/92		--	--	--	--	--	--	
	08/29/92	Composite	--	--	--	--	--	--	
	09/26/92	Composite	--	--	--	--	--	--	
	09/26/92	Grab	--	--	--	--	--	--	

Table B-21. (cont.)

Station/Location	Date	Sample ID	Monochloro- benzene (µg/L)	1,2-Di- chloro- benzene (µg/L)	1,3-Di-chloro- benzene (µg/L)	1,4-Di-chloro- benzene (µg/L)	1,2,3-Tri- chloro- benzene (µg/L)	1,2,4-Tri- chloro- benzene (µg/L)	1,3,5-Tri- chloro- benzene (µg/L)
W11 Sawmill Creek	12/17/92	Composite	--	--	--	--	--	--	--
	04/25/92		--	--	--	--	--	--	--
W12 Lake Outlet	08/29/92	1	--	--	--	--	--	--	--
	08/29/92	5	--	--	--	--	--	--	--
	08/29/92	15	--	--	--	--	--	--	--
	09/27/92	1	--	--	--	--	--	--	--
	09/27/92	5	--	--	--	--	--	--	--
	09/27/92	10	--	--	--	--	--	--	--
	09/27/92	15	--	--	--	--	--	--	--
	11/24/92	1	--	--	--	--	--	--	--
	11/24/92	5	--	--	--	--	--	--	--
	11/24/92	10	--	--	--	--	--	--	--
	11/24/92	15	--	--	--	--	--	--	--
	12/18/92	1	--	--	--	--	--	--	--
	12/18/92	5	--	--	--	--	--	--	--
12/18/92	10	--	--	--	--	--	--	--	
12/18/92	15	--	--	--	--	--	--	--	

Notes:

- Compound not detected
- * Exceeds state chronic water quality standard of 5.0 µg/L for monochlorobenzene, dichlorobenzenes, and trichlorobenzenes (NYSDEC, 1999)
- ** Exceeds USEPA (1986) acute ambient water quality criteria. Criteria are:
 - Monochlorobenzene: 250
 - Dichlorobenzenes: 1,120
 - Trichlorobenzenes: 250

Sources: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703
 New York State Department of Environmental Conservation, Division of Water, Albany, NY.
 USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-22. Summary of Concentrations of Chlorinated Benzenes in Lake Water in 1992 and Comparison with New York State and USEPA Water Quality Standards

Station/Location	Date	Sample Location ^a	Field Replicate Number	Monochloro-benzene (µg/L)	1,2-Di-chloro-benzene (µg/L)	1,3-Di-chloro-benzene (µg/L)	1,4-Di-chloro-benzene (µg/L)	1,2,3-Tri-chloro-benzene (µg/L)	1,2,4-Tri-chloro-benzene (µg/L)	1,3,5-Tri-chloro-benzene (µg/L)
W1	04/13/92	W1-3		--	--	--	--	--	--	--
South Basin	04/13/92	W1-9	1	--	--	--	--	--	--	--
	04/13/92	W1-9	2	--	--	--	--	--	--	--
	04/13/92	W1-9	3	--	--	--	--	--	--	--
	04/13/92	W1-15		--	--	--	--	--	--	--
	04/13/92	W1R-9		--	--	--	--	--	--	--
	05/27/92	W1-0		--	--	--	--	--	--	--
	05/27/92	W1-3		--	--	--	--	--	--	--
	05/27/92	W1-6		--	--	--	--	--	--	--
	05/27/92	W1-9		--	--	--	--	--	--	--
	05/27/92	W1-12		--	--	--	--	--	--	--
	05/27/92	W1-15	1	--	--	--	--	--	--	--
	05/27/92	W1-15	2	--	--	--	--	--	--	--
	05/27/92	W1-15	3	--	--	--	--	--	--	--
	05/27/92	W1-18		--	--	--	--	--	--	--
	05/28/92	W1R-0		--	--	--	--	--	--	--
	05/28/92	W1R-3		--	--	--	--	--	--	--
	05/28/92	W1R-6		--	--	--	--	--	--	--
	05/28/92	W1R-9		--	--	--	--	--	--	--
	05/28/92	W1R-12		--	--	--	--	--	--	--
	05/28/92	W1R-15		--	--	--	--	--	--	--
	05/28/92	W1R-18		--	--	--	--	--	--	--
	06/23/92	W1-0		--	--	--	--	--	--	--
	06/23/92	W1-3		--	--	--	--	--	--	--
	06/23/92	W1-6		--	--	--	--	--	--	--
	06/23/92	W1-9		--	--	--	--	--	--	--
	06/23/92	W1-12		--	--	--	--	--	--	--
	06/23/92	W1-15		--	--	--	--	--	--	--
	06/23/92	W1-18		--	--	--	--	--	--	--
	(06/24/92)	(W1R-0)		(--)	(--)	(--)	(--)	(--)	(--)	(--)
	06/24/92	W1R-3		--	--	--	--	--	--	--
	06/24/92	W1R-6		--	--	--	--	--	--	--
	06/24/92	W1R-9		--	--	--	--	--	--	--
	06/24/92	W1R-12		--	--	--	--	--	--	--
	06/24/92	W1R-15		--	--	--	--	--	--	--
	06/24/92	W1R-18		--	--	--	--	--	--	--
	07/21/92	W1-0		--	--	--	--	--	--	--
	07/21/92	W1-3		--	--	--	--	--	--	--
	07/21/92	W1-6	1	--	--	--	--	--	--	--
	07/21/92	W1-6	2	--	--	--	--	--	--	--
	07/21/92	W1-6	3	--	--	--	--	--	--	--
	07/21/92	W1-9		--	--	--	--	--	--	--
	07/21/92	W1-12		--	--	--	--	--	--	--
	07/21/92	W1-15		--	--	--	--	--	--	--
	07/21/92	W1-18		--	--	--	--	--	--	--
	07/22/92	W1R-0		--	--	--	--	--	--	--
	07/22/92	W1R-3		--	1.7	1.2	1.7	2.7	2.4	1.6
	07/22/92	W1R-6		--	--	--	--	--	--	--
	07/22/92	W1R-9		--	--	--	--	--	--	--
	07/22/92	W1R-12		--	--	--	--	--	--	--
	07/22/92	W1R-15		--	--	--	--	--	--	--
	07/22/92	W1R-18		--	--	--	--	--	--	--

Table B-22. (cont.)

Station/Location	Date	Sample Location ^a	Field Replicate Number	Monochloro-benzene (µg/L)	1,2-Di-chloro-benzene (µg/L)	1,3-Di-chloro-benzene (µg/L)	1,4-Di-chloro-benzene (µg/L)	1,2,3-Tri-chloro-benzene (µg/L)	1,2,4-Tri-chloro-benzene (µg/L)	1,3,5-Tri-chloro-benzene (µg/L)	
W1 South Basin	08/25/92	W1-0		--	--	--	--	--	--	--	
	08/25/92	W1-3		--	--	--	--	--	--	--	
	08/25/92	W1-6		--	--	--	--	--	--	--	
	08/25/92	W1-9	1	--	--	--	--	--	--	--	
	08/25/92	W1-9	2	--	--	--	--	--	--	--	
	08/25/92	W1-9	3	--	--	--	--	--	--	--	
	08/25/92	W1-12		--	--	--	--	--	--	--	
	08/25/92	W1-15		--	--	--	--	--	--	--	
	08/25/92	W1-18		--	--	--	--	--	--	--	
	09/22/92	W1-0		--	--	--	--	--	--	--	
	09/22/92	W1-3		--	--	--	--	--	--	--	
	09/22/92	W1-6		--	--	--	--	--	--	--	
	09/22/92	W1-9		--	--	--	--	--	--	--	
	09/22/92	W1-12		--	--	--	--	--	--	--	
	09/22/92	W1-15		--	--	--	--	--	--	--	
	09/22/92	W1-18		--	--	--	--	--	--	--	
	W2 North Basin	04/08/92	W2-3		--	--	--	--	--	--	--
		04/08/92	W2-9		--	--	--	--	--	--	--
		04/08/92	W2-15		--	--	--	--	--	--	--
		05/26/92	W2-0		--	--	--	--	--	--	--
		05/26/92	W2-3		--	--	--	--	--	--	--
		05/26/92	W2-6		--	--	--	--	--	--	--
		05/26/92	W2-9		--	--	--	--	--	--	--
		05/26/92	W2-12		--	--	--	--	--	--	--
		05/26/92	W2-15		--	--	--	--	--	--	--
		05/26/92	W2-18		--	--	--	--	--	--	--
		06/23/92	W2-0		--	--	--	--	--	--	--
		06/23/92	W2-3		--	--	--	--	--	--	--
06/23/92		W2-6		--	--	--	--	--	--	--	
06/23/92		W2-9		--	--	--	--	--	--	--	
06/23/92		W2-12		--	--	--	--	--	--	--	
06/23/92		W2-15		--	--	--	--	--	--	--	
06/23/92		W2-18		--	--	--	--	--	--	--	
07/21/92		W2-0		--	--	--	--	--	--	--	
07/21/92		W2-3		--	--	--	--	--	--	--	
07/21/92		W2-6		--	--	--	--	--	--	--	
07/21/92		W2-9		--	--	--	--	--	--	--	
07/21/92		W2-12		--	--	--	--	--	--	--	
07/21/92		W2-15		--	--	--	--	--	--	--	
07/21/92		W2-18		--	--	--	--	--	--	--	
08/24/92		W2-0		--	--	--	--	--	--	--	
08/24/92		W2-3		--	--	--	--	--	--	--	
08/24/92		W2-6		--	--	--	--	--	--	--	
08/24/92		W2-9		--	--	--	--	--	--	--	
08/24/92		W2-12		--	--	--	--	--	--	--	
08/24/92		W2-15		--	--	--	--	--	--	--	
08/24/92		W2-18		--	--	--	--	--	--	--	
09/21/92		W2-0		--	--	--	--	--	--	--	
09/21/92	W2-3		--	--	--	--	--	--	--		
09/21/92	W2-6		--	--	--	--	--	--	--		
09/21/92	W2-9	1	--	--	--	--	--	--	--		
09/21/92	W2-9	2	--	--	--	--	--	--	--		

Table B-22. (cont.)

Station/Location	Date	Sample Location ^a	Field Replicate Number	Monochlorobenzene (µg/L)	1,2-Dichlorobenzene (µg/L)	1,3-Dichlorobenzene (µg/L)	1,4-Dichlorobenzene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,4-Trichlorobenzene (µg/L)	1,3,5-Trichlorobenzene (µg/L)
North Basin	09/21/92	W2-12		--	--	--	--	--	--	--
	09/21/92	W2-15		--	--	--	--	--	--	--
	09/21/92	W2-18		--	--	--	--	--	--	--

Notes: -- Compound not detected

* Exceeds state chronic water quality standard of 5.0 µg/L for monochlorobenzene, dichlorobenzenes, and trichlorobenzenes (NYSDEC, 1999)

** Exceeds USEPA (1986) acute ambient water quality criteria. Criteria are:

Monochlorobenzene: 250 µg/L (lowest observed effect level)

Dichlorobenzenes: 1,120 µg/L (lowest observed effect level)

Trichlorobenzenes: 250 µg/L (lowest observed effect level)

^a Sampling stations were W1, W1R, and W2. Station W1R was a replicate station located near Station W1. The number after each dash indicates sampling depth in meters.

Sources: NYSDC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703.

New York State Department of Environmental Conservation, Division of Water, Albany, NY.

USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-23. Summary of Chloride Concentrations in Metro Discharge and Tributary Water During Base-Flow Conditions in 1992 and Comparison with USEPA Water Quality Standards

Station	Date	Sample ID	Chloride (mg/L)
W3E Metro Outlet	09/15/92		163
	10/06/92		157
	10/17/92	Composite	98
	10/17/92	Grab	102 **
W4 Onondaga Creek	06/18/92		1115 *
	09/15/92		928 **
	10/05/92		790 **
	10/16/92	Composite	790 *
	10/16/92	Grab	828 *
W5 Harbor Brook	05/25/92		270 *
	06/18/92		270 *
	08/16/92		269 *
	09/18/92		274 *
	10/05/92		261 *
	11/09/92		262 *
	12/07/92		366 *
W6 Ley Creek	06/18/92		323
	08/15/92		277
	09/16/92		283
	10/05/92		302
W7 East Flume	04/10/92		610 *
	05/27/92		313
	07/29/92		453
	08/17/92		397
	09/26/92		101
	09/26/92		120
	10/05/92		463
	10/24/92		222
	10/24/92		369 *
11/09/92		429 *	

Table B-23. (cont.)

Station	Date	Sample ID	Chloride (mg/L)
W8	05/25/92		303 *
Tributary 5A	06/18/92		306 *
	08/17/92		316 *
	09/18/92		302 *
	10/05/92		352 *
	11/09/92		331 *
	12/07/92		339 *
W9	06/19/92		233 *
Bloody Brook			
W10	05/26/92		1121 *
Ninemile Creek	06/17/92		1411 *
	09/16/92		1219 *
W11	06/19/92		205
Sawmill Creek			
W12	06/19/92		281 *
Lake Outlet	09/17/92		460 *
	12/09/92		456 *

Notes:

Results are in mg/L whole.

* Exceeds USEPA (1995) chronic water quality criterion for chloride of 230 mg/L

** Exceeds USEPA (1995) acute water quality criterion of 860 mg/L

Source: USEPA (1995). TSC195 Criteria Chart. 304(a) Criteria/Related Information for Toxics.
EPA Region IV Water Quality Standards Section.

Table B-24. Summary of Chloride Concentrations in Metro Discharge and Tributary Water During Intermediate-Flow Conditions in 1992 and Comparison with USEPA Water Quality Standards

Station	Date	Sample ID	Chloride (mg/L)
W3E Metro Outlet	11/10/92		158
	12/08/92		372 *
W4 Onondaga Creek	05/25/92		862 *
	07/28/92		480 **
	08/15/92		734 **
	08/28/92	Grab	1040
	09/26/92	Composite	602
	09/26/92	Grab	599
	11/09/92		526
	12/07/92		604
	12/16/92	Grab	672 *
W5 Harbor Brook	07/29/92		293 *
	10/25/92	Composite	124 *
	10/25/92	Grab	125 *
W6 Ley Creek	04/22/92		274
	05/25/92		226
	07/28/92		263
	10/17/92	Composite	154
	10/17/92	Grab	221
	11/09/92		197
	12/07/92		386
W7 East Flume	08/28/92	Grab	414 *
	08/29/92	Composite	208
	09/18/92		414
	11/22/92	Composite	563
	11/22/92	Grab	551

Table B-24. (cont.)

Station	Date	Sample ID	Chloride (mg/L)
W8	07/28/92		338 *
Tributary 5A	10/24/92	Composite	262 *
	10/24/92	Grab	216 *
W10	08/15/92		544 *
Ninemile Creek	08/28/92	Grab	734 *
	10/06/92		644
	10/24/92	Composite	565
	10/24/92	Grab	631
	11/10/92		677
	12/08/92		737
	12/16/92	Composite	710
	12/16/92	Grab	742 *
W12	05/27/92		465 *
Lake Outlet	07/30/92		450 *
	08/18/92		424 *
	10/07/92		489 *
	10/18/92	1	477 *
	10/18/92	5	484 *
	10/18/92	10	488 *
	10/18/92	15	485 *
	11/11/92		499 *

Notes:

Results are in mg/L whole.

* Exceeds USEPA (1995) chronic water quality criterion for chloride of 230 mg/L

** Exceeds USEPA (1995) acute water quality criterion of 860 mg/L

Source: USEPA (1995). TSC195 Criteria Chart. 304(a) Criteria/Related Information for Toxics.
EPA Region IV Water Quality Standards Section.

Table B-25. Summary of Chloride Concentrations in Metro Discharge and Tributary Water During High-Flow Conditions in 1992 and Comparison with USEPA Water Quality Standards

Station	Date	Sample ID	Chloride (mg/L)	
W3E Metro Outlet	08/29/92	Composite	612 *	
	09/26/92	Composite	148	
	11/23/92	Composite	161	
	12/18/92	Composite	263	
	08/29/92	Grab	752 *	
	09/26/92	Grab	164	
	12/18/92	Grab	262	
	W4 Onondaga Creek	04/22/92		372 **
		08/29/92	Composite	989 *
11/23/92		Composite	645 *	
11/23/92		Grab	624 *	
12/17/92		Composite	657 *	
W5 Harbor Brook	04/10/92		253	
	08/29/92	Composite	37	
	09/26/92	Composite	185	
	09/26/92	Grab	306	
	11/23/92	Composite	176	
	11/23/92	Grab	223	
	12/17/92	Composite	195 *	
	12/17/92	Grab	196	
W6 Ley Creek	08/29/92	Composite	163	
	08/29/92	Grab	82.2	
	09/26/92	Grab	213	
	12/17/92	Composite	336	
	12/17/92	Grab	394 *	
W8 Tributary 5A	04/10/92		272 *	
	08/28/92	Grab	268 *	
	08/29/92	Composite	271 *	
	09/26/92	Composite	220	
	09/26/92	Grab	262 *	
	11/22/92	Composite	241 *	
	11/22/92	Grab	245 *	
	12/17/92	Composite	242 *	
	12/17/92	Grab	245 *	
W9 Bloody Brook	12/17/92	Composite	197	

Table B-25. (cont.)

Station	Month	Sample ID	Chloride (mg/L)
W10 Ninemile Creek	04/24/92		604 *
	07/27/92		380 *
	08/29/92	Composite	533 *
	09/26/92	Composite	370 *
	09/26/92	Grab	442
W11 Sawmill Creek	12/17/92	Composite	343 *
W12 Lake Outlet	04/25/92		416
	08/29/92	1	154
	08/29/92	5	158
	08/29/92	10	477 *
	08/29/92	15	486 *
	09/27/92	1	179 *
	09/27/92	5	295 *
	09/27/92	10	467 *
	09/27/92	15	478 *
	11/24/92	1	492 *
	11/24/92	5	486 *
	11/24/92	10	501 *
	11/24/92	15	501 *
	12/18/92	1	479 *
	12/18/92	5	481 *
12/18/92	10	490 *	
12/18/92	15	488 *	

Notes: Results are in mg/L whole.

* Exceeds USEPA (1995) chronic water quality criterion for chloride of 230 mg/L

** Exceeds USEPA (1995) acute water quality criterion for chloride of 860 mg/L

Source: USEPA (1995). TSC195 Criteria Chart. 304(a) Criteria/Related Information for EPA Region IV Water Quality Standards Section.

Table B-26. Summary of Chloride Concentrations in Lake Water in 1992 and Comparison with USEPA Water Quality Standards

Station	Date	Sample ID	Field Replicate Number	Chloride (mg/L)
W1 South Basin	04/13/92	W1-3		473 *
	04/13/92	W1-9	1	471 *
	04/13/92	W1-9	2	471 *
	04/13/92	W1-9	3	482 *
	04/13/92	W1-15		480 *
	04/13/92	W1-9R		477 *
	05/27/92	W1-0		479 *
	05/27/92	W1-3		474 *
	05/27/92	W1-6		485 *
	05/27/92	W1-9		472 *
	05/27/92	W1-12		476 *
	05/27/92	W1-15	1	463 *
	05/27/92	W1-15	2	460 *
	05/27/92	W1-15	3	465 *
	05/27/92	W1-18		459 *
	05/28/92	W1-0R		480 *
	05/28/92	W1-3R		473 *
	05/28/92	W1-6R		471 *
	05/28/92	W1-9R		472 *
	05/28/92	W1-12R		471 *
	05/28/92	W1-15R		476 *
	05/28/92	W1-18R		473 *
	06/23/92	W1-0		490 *
	06/23/92	W1-3		486 *
	06/23/92	W1-6		488 *
	06/23/92	W1-9	1	508 *
	06/23/92	W1-9	2	508 *
	06/23/92	W1-9	3	504 *
	06/23/92	W1-12		484 *
	06/23/92	W1-15		464 *
	06/23/92	W1-18		458 *
	06/24/92	W1-0R		480 *
06/24/92	W1-3R		482 *	
06/24/92	W1-6R		479 *	
06/24/92	W1-9R		516 *	
06/24/92	W1-12R		478 *	
06/24/92	W1-15R		470 *	
06/24/92	W1-18R		468 *	
07/21/92	W1-0		462 *	
07/21/92	W1-3		459 *	
07/21/92	W1-6	1	449 *	

Table B-26. (cont.)

Station	Date	Sample ID	Field Replicate Number	Chloride (mg/L)
W1 South Basin	07/21/92	W1-6	2	461 *
	07/21/92	W1-6	3	445 *
	07/21/92	W1-9		492 *
	07/21/92	W1-12		521 *
	07/21/92	W1-15		438 *
	07/21/92	W1-18		477 *
	07/22/92	W1-0R		463 *
	07/22/92	W1-3R		471 *
	07/22/92	W1-6R		462 *
	07/22/92	W1-9R		538 *
	07/22/92	W1-12R		540 *
	07/22/92	W1-15R		505 *
	07/22/92	W1-18R		479 *
	08/25/92	W1-0		405 *
	08/25/92	W1-3		424 *
	08/25/92	W1-6		432 *
	08/25/92	W1-9	1	496 *
	08/25/92	W1-9	2	494 *
	08/25/92	W1-9	3	494 *
	08/25/92	W1-12		539 *
	08/25/92	W1-15		502 *
	08/25/92	W1-18		499 *
	09/22/92	W1-0		462 *
	09/22/92	W1-3		466 *
	09/22/92	W1-6		466 *
	09/22/92	W1-9		466 *
	09/22/92	W1-12		534 *
	09/22/92	W1-15		514 *
	09/22/92	W1-18		488 *
	10/12/92	W1-3	1	487 *
10/12/92	W1-3	2	490 *	
10/12/92	W1-3	3	495 *	
10/12/92	W1-9		485 *	
10/12/92	W1-15		520 *	
11/16/92	W1-3		480 *	
11/16/92	W1-9	1	501 *	
11/16/92	W1-9	2	475 *	
11/16/92	W1-9	3	503 *	
11/16/92	W1-15		505 *	

Table B-26. (cont.)

Station	Date	Sample ID	Field Replicate Number	Chloride (mg/L)
W2 North Basin	04/08/92	W2-3		505 *
	04/08/92	W2-9		503 *
	04/08/92	W2-15		525 *
	05/26/92	W2-0		490 *
	05/26/92	W2-3		486 *
	05/26/92	W2-6		484 *
	05/26/92	W2-9		481 *
	05/26/92	W2-12		484 *
	05/26/92	W2-15		487 *
	05/26/92	W2-18		483 *
	06/23/92	W2-0		487 *
	06/23/92	W2-3		482 *
	06/23/92	W2-6		494 *
	06/23/92	W2-9		510 *
	06/23/92	W2-12		496 *
	06/23/92	W2-15		473 *
	06/23/92	W2-18		471 *
	07/21/92	W2-0		466 *
	07/21/92	W2-3		455 *
	07/21/92	W2-6		460 *
	07/21/92	W2-9		528 *
	07/21/92	W2-12		525 *
	07/21/92	W2-15		496 *
	07/21/92	W2-18		486 *
	08/24/92	W2-0		431 *
	08/24/92	W2-3		414 *
	08/24/92	W2-6		425 *
	08/24/92	W2-9		488 *
	08/24/92	W2-12		519 *
	08/24/92	W2-15		500 *
	08/24/92	W2-18		496 *
	09/21/92	W2-0		449 *
	09/21/92	W2-3		456 *
	09/21/92	W2-6		460 *
	09/21/92	W2-9	1	478 *
	09/21/92	W2-9	2	467 *
	09/21/92	W2-9	3	465 *
	09/21/92	W2-12		554 *
	09/21/92	W2-15		493 *
	09/21/92	W2-18		486 *

Table B-26. (cont.)

Station	Date	Sample ID	Field Replicate Number	Chloride (mg/L)
W2 North Basin	10/12/92	W2-3		459 *
	10/12/92	W2-9		466 *
	10/12/92	W2-15		520 *
	11/16/92	W2-3		495 *
	11/16/92	W2-9		491 *
	11/16/92	W2-15		510 *

Notes: Results are in mg/L whole.

* Exceeds USEPA (1999) chronic water quality criterion for chloride of 230 mg/L

** Exceeds USEPA (1999) acute water quality criterion for chloride of 860 mg/L

Source: USEPA (1999). National Recommended Water Quality Criteria - Correction.
EPA 822-Z-99-001. USEPA, Office of Water.

Table B-27. Summary of Concentrations of Mercury in Lake Water in 1999 and Comparison with the New York State Chronic Water Quality Standards^a

Station/Location	Month	Sample Depth (m)	Field Replicate Number	Total Mercury (ng/L)		Methylmercury (ng/L)	
				Total	Dissolved	Total	Dissolved
W1	September	0		14	1.27	1.1	0.1
South Basin	September	3		5.5	1.01	0.7	0.1
	September	6		4.1	0.96	0.5	0.1
	September	9		13	11 *	12	13
	September	12		20	17 *	6.3	8.2
	September	15		20	20 *	1.9	1.7
	September	18		27	24 *	0.6	1.2
	October	0		6.6	1.8	2.8	0.9
	October	3		7.5	1.9	2.4	1.1
	October	6		7.7	2.1	2.5	1.2
	October	9		7.2	2.5	2.2	1.2
	October	9		7.6	1.9	2.3	1.1
	October	12		8.0	2.0	1.9	1.1
	October	15		10	4.6 *	5.4	3.1
	October	18		24	21 *	9.4	6.1
	October	0		6.5	2.2	2.8	0.7
	October	3		6.5	2.0	1.9	1.3
	October	6		5.3	2.3	3.0	0.9
	October	9		6.7	2.3	2.2	0.9
	October	9		6.5	1.4	1.9	1.2
	October	12		6.8	2.2	0.8	0.6
October	15		6.9	1.7	2.8	1.2	
October	18		10	2.4	2.8	1.1	
November	0		11	1.8	1.6	0.7	
November	3		10	2.0	1.4	0.7	
November	6		12	1.8	1.8	0.6	
November	9		11	1.7	1.8	0.6	
November	12		11	1.6	1.7	0.7	
November	12		11	1.9	1.6	0.8	
November	15		12	1.9	1.7	0.7	
November	18		11	1.7	1.7	0.8	
December	0		7.1	1.3	1.2	0.4	
December	3		7.3	1.6	1.0	0.5	
December	6		7.4	1.3	1.1	0.5	
December	9		6.7	1.5	1.1	0.6	
December	12		6.6	1.4	1.2	0.5	
December	12		7.0	1.6	1.4	0.6	
December	15		7.2	1.2	1.4	0.4	
December	18		7.2	1.4	0.9	0.3	

Table B-27. (cont.)

Station/Location	Month	Sample Depth (m)	Field Replicate Number	Total Mercury (ng/L)		Methylmercury (ng/L)	
				Total	Dissolved	Total	Dissolved
W2	September	0		3.5	1.0	0.8	0.2
North Basin	September	3		4.1	1.0	0.9	0.2
	September	6		4.2	0.8	1.1	0.3
	September	9		3.6	1.2	1.2	0.6
	September	12		19	15 *	14	15
	September	15		20	17 *	7.4	5.7
	September	18		25	19 *	4.9	12
	October	0		6.2	2.5	3.4	1.4
	October	3		6.6	2.3	2.1	1.2
	October	6		6.8	2.1	3.6	1.3
	October	9		6.6	1.1	3.0	1.4
	October	12		7.5	3.0 *	3.3	1.8
	October	15		20	18 *	14	11
	October	18		25	24 *	12	5.2
	October	0		4.8	1.8	2.3	1.3
	October	3		5.8	1.8	2.4	1.2
	October	6		5.5	2.1	2.7	0.8
	October	9		4.9	2.0	2.2	0.7
	October	12		5.6	1.7	2.8	1.2
October	15		5.9	2.1	2.3	1.2	
October	18		10	2.4	4.4	1.6	
W12	September	2	1	4.8	0.83	1.1	0.3
Lake Outlet	September	2	2	4.0	0.25	1.7	0.4
	October	1		10	4.6 *	5.8	3.0
	October	3		10	4.2 *	5.9	3.1
	October	2		6.3	2.0	2.1	0.9
	December	2		6.6	1.8	1.3	0.5
	W50	September	1		12	1.8	1.0
Willis Lakeshore Exposure Area							
W51	September	0		11	1.7	0.8	0.346
Observed Fish Area							
W52	September	1		2.3	2.9 *	0.8	0.3
Access from Fairgrounds	October	1		7.5	2.6	1.5	1.0

Table B-27. (cont.)

Station/Location	Month	Sample Depth (m)	Field Replicate Number	Total Mercury (ng/L)		Methylmercury (ng/L)	
				Total	Dissolved	Total	Dissolved
W53	September	1	1	26	7.8 *	0.8	0.3
Beach Access	September	1	2	9.8	4.1 *	0.8	0.2
W54	September	0		6.2	1.2	0.8	0.2
Lake Park Lakeland	October	1		6.5	2.8 *	2.4	0.81
W55	September	0		103	1.8	1.1	0.35
Harbor Brook							
W56	September	1		4.8	2.6 *	0.6	0.2
Park/Picnic Area/Playground							
W57	September	0		10	2.7 *	0.8	0.1
Boat Ramp (Liverpool)							
W58	September	1		8.1	1.8	0.8	0.2
Lake Park Galeville	October	1		14	2.1	0.8	0.2

Notes: * Exceeds wildlife value

** Exceeds chronic value

*** Exceeds acute value

^a State wildlife, chronic, and acute water quality values are 2.6, 770, and 1,400 ng/L dissolved total mercury, respectively (NYSDEC 1999).

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-28. Summary of Concentrations of Metals Other than Mercury in Lake Water in 1999

Station/Location	Month	Sample Location	Field Replicate Number	Chromium (µg/L)	Lead (µg/L)	Manganese (µg/L)	Nickel (µg/L)
W1 South Basin	September	W1-0		3.5	--	30	3.6
W2 North Basin	September	W2-0		3.7	--	26	3.7
W50 Willis Lakeshore Exposure Area	September	W50-1		3.9	3.1	21	4.6
W51 Observed Fish Area	September	W51-0		3.7	--	27	4.7
W52 Access from Fairgrounds	September	W52-1		3.5	--	15	4.2
W53 Beach Access	September	W53-1	1	3.5	--	15	4.0
	September	W53-1	2	2.6	--		3.9
W54 Lake Park Lakeland	September	W54-0		3.1	--	14	3.7
W55 Harbor Brook	September	W55-0		3.8	--	31	4.2
W56 Park/Picnic Area/Playground	September	W56-1		3.6	--	19	3.5
W57 Boat Ramp (Liverpool)	September	W57-0		3.2	--	16	3.9
W58 Lake Park Galeville	September	W58-1		3.2	--	16	4.0

Note: -- Metal not detected

Table B-29. Ratios of Concentrations of Metals Other than Mercury to New York State Chronic Water Quality Standards for Lake Water in 1999^a

Station/Location	Month	Field Replicate Number	Chromium	Lead	Nickel
W1 South Basin	September		0.04	< 0.31	0.05
W2 North Basin	September		0.04	< 0.31	0.06
W50 Willis Lakeshore Exposure Area	September		0.04	0.59	0.07
W51 Observed Fish Area	September		0.04	< 0.31	0.07
W52 Access from Fairgrounds	September		0.04	< 0.31	0.06
W53 Beach Access	September	1	0.04	< 0.31	0.06
	September	2	0.03	< 0.31	0.06
W54 Lake Park Lakeland	September		0.03	< 0.31	0.06
W55 Harbor Brook	September		0.04	< 0.31	0.06
W56 Park/Picnic Area/Playground	September		0.04	< 0.31	0.05
W57 Boat Ramp (Liverpool)	September		0.03	< 0.31	0.06
W58 Lake Park Galeville	September		0.03	< 0.31	0.06

Notes: < Ratio is based on detection limit because metal was not detected

* Ratio >1.0, denoting exceedance of water quality value

^a Water quality standards based on NYSDEC (1999) for water classes A–C.

Hardness-dependent value for an assumed hardness of 135 mg/L.

There is no aquatic based NYSDEC standard for Manganese.

Source: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.

Table B-30. Summary of Concentrations of BTX Compounds in Lake Water in 1999 and Comparison with USEPA Water Quality Standards

Station/Location	Month	Field Replicate Number	Benzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)
W1 South Basin	September		--	--	--
W2 North Basin	September		--	--	--
W50 Willis Lakeshore Exposure Area	September		6.3	0.2	--
W51 Observed Fish Area	September		--	--	--
W52 Access from Fairgrounds	September		--	--	--
W53 Beach Access	September	1	--	--	0.5
	September	2	--	--	--
W54 Lake Park Lakeland	September		--	--	--
W55 Harbor Brook	September		0.1	--	0.3
W56 Park/Picnic Area/Playground	September		--	--	--
W57 Boat Ramp (Liverpool)	September		--	--	--
W58 Lake Park Galeville	September		--	--	--

Notes: -- Compound not detected

* Exceeds USEPA (1996) ecotox thresholds; thresholds are:

Benzene - 46 µ g/L

Toluene - 130 µ g/L

** Exceeds USEPA (1986) acute water quality criteria; criteria are:

Benzene - 5,300 µ g/L

Toluene - 17,500 µ g/L

Xylenes - 1.8 µg/L

Sources: USEPA (1996). Ecotox thresholds. EPA/540/F-95/038. USEPA, Office of Solid Waste and Emergency Response, Washington, DC.

USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.

Table B-31. Summary of Concentrations of Chlorinated Benzenes in Lake Water in 1999 and Comparison with New York State and USEPA Water Quality Standards

Station/Location	Month	Sample Location	Field Replicate Number	Monochloro-benzene (μ g/L)	1,2-Dichloro-benzene (μ g/L)	1,4-Dichloro-benzene (μ g/L)
W1 South Basin	September	W1-0		--	--	0.2
W2 North Basin	September	W2-0		--	--	0.2
W50 Willis Lakeshore Exposure Area	September	W50-1		12 *	3.2	3.4
W51 Observed Fish Area	September	W51-0		--	0.11	0.3
W52 Access from Fairgrounds	September	W52-1		--	--	0.2
W53 Beach Access	September	W53-1	1	--	--	0.2
	September	W53-1	2	--	--	--
W54 Lake Park Lakeland	September	W54-0		--	--	0.2
W55 Harbor Brook	September	W55-0		0.5	0.17	0.5
W56 Park/Picnic Area/Playground	September	W56-1		--	--	0.1
W57 Boat Ramp (Liverpool)	September	W57-0		--	--	--
W58 Lake Park Galeville	September	W58-1		--	--	0.2

Note: -- Compound not detected

* Exceeds state chronic water quality standard of 5.0 μ g/L for monochlorobenzene, dichlorobenzenes, and trichlorobenzenes (NYSDEC 1999)

** Exceeds USEPA (1986) acute ambient water quality criteria. Criteria are:

Monochlorobenzene: 250 μ g/L (lowest observed effect level)

Dichlorobenzenes: 1,120 μ g/L (lowest observed effect level)

Trichlorobenzenes: 250 μ g/L (lowest observed effect level)

Sources: NYSDEC (1999). Surface water and groundwater quality standards and groundwater effluent limitations. Express terms for 6 NYCRR Part 703. New York State Department of Environmental Conservation, Division of Water, Albany, NY.
USEPA (1986). Quality criteria for water—1986. EPA/440/5-86/001. USEPA, Office of Water Regulations and Standards, Washington, DC.