



Monroe County Water Authority

2003 Water Quality Monitoring Program Summary

If you have any questions on this report, please call our Customer Service Department at (585) 442-7200.

Parameter	EPA/NYS			Shoremont WTP			Brockport WTP			Corfu WTP			Hemlock WTP			ECWA			City of Batavia WTP			Town of Ontario WTP					
	MCL	MCLG	UNITS	Average	Range	Samples in. 2003	Average	Range	Samples in. 2003	Average	Range	Samples in. 2004	Average	Range	Samples in. 2003	Average	Range	Samples in. 2003	Average	Range	Samples in. 2003	Town of Ontario WTP	Range	Samples in. 2003			
Inorganics, Metals, Physical Parameters																											
Aluminum	NS	NS	ug/L	24	ND - 74	4	57	ND - 100	3	ND		3	37	ND - 100	4	230	120 - 400	3							NR		
Antimony	6	6	ug/L	ND		4	ND		3	ND		3	ND		4	ND		3							ND (2002)	1	
Arsenic	10	NA	ug/L	ND		4	ND		3	ND		3	ND		4	ND		3							5(2002)	1	
Barium	2	2	mg/L	0.021	0.020 - 0.022	4	0.023	0.022 - 0.024	3	0.069	0.065 - 0.007	3	0.017	0.016 - 0.019	4	0.021		3	0.013						0.024	1	
Beryllium	4	4	ug/L	ND		4	ND		3	ND		3	ND		3	ND		3							ND (2002)	1	
Cadmium	5	5	ug/L	ND		4	ND		3	ND		3	ND		4	ND		3							ND (2002)	1	
Calcium	NS	NS	mg/L	35	34-36	4	37	25 - 39	3	35	34 - 36	3	37	25 - 28	4	34	33 - 34	3	13							NR	
Chromium	100	100	ug/L	ND		4	ND		3	ND		3	ND		4	ND		3							ND (2002)	1	
Copper (Distribution System)	NS	NS	mg/L	ND		4	ND		3	0.38	0.35 - 0.42	3	ND	ND - 0.008	4	0.005	ND - 0.009	3								NR	
Copper (Customer Tap Samples)	AL* = 1.3	1.3	mg/L	0.1	0.01 - 0.57	37	0.038		30 (2001)	0.15	0.02 - 0.62	22	0.09	0.04 - 0.17	15	0.15	0.02 - 0.62	22	0.015	0.001 - 0.052	30	0.106	0.008-0.119		13		
Cyanide	200	200	ug/l	ND		4	ND		3	ND		3	ND		4	ND		3							10	1	
Fluoride	2.2	NA	mg/L	0.98	0.2 - 1.28	2140	1	0.7 - 1.4	400	NR			0.88	ND - 1.1	1057	0.93	0.71 - 1.11	71	0.9	0.7 - 1.1	58	0.08			1		
Iron	300	NA	ug/L	ND		4	ND		3	24	ND - 73	3	ND	ND - 150	4	ND		3								NR	
Lead (Distribution System)	NS	NS	ug/L	ND		4	ND		3	ND		3	ND		4	ND		3								NR	
Lead (Customer Tap Samples)	AL* = 15	0	ug/L	2.8	ND - 19	37	ND	ND - 9	30 (2001)	1	ND - 6	22	3	ND - 11	15	1	ND - 6	22	2	ND - 25	30	5.7	3.5-6.3			13	
Magnesium	NS	NS	mg/L	9	9 - 9.1	2	9.3	8.7 - 9.7	2	14		1	6.6	6 - 6.6	4	8.9		1	20							NR	
Manganese	300	NA	ug/L	ND	ND - 1.2	4	ND		3	25	9 - 50	4	ND		3	14		1	ND							NR	
Mercury	2	2	ug/L	ND		4	ND		3	ND		3	ND		4	ND		1	ND						ND (2002)	1	
Nickel	100	NA	ug/L	ND		4	ND		3	ND		3	ND		4	ND		1	1.5						0.0026	1	
Nitrate	10	10	mg/L	0.40	0.38 - 0.46	4	0.45	0.39 - 0.51	3	ND		3	ND	ND - 0.2	4	0.22		1	1.1						0.61	1	
Nitrite	1	1	mg/L	ND		4	ND	ND - 0.11	3	ND		3	ND		4	ND		1	ND							NR	
Potassium	NS	NS	mg/L	1.6		1	1.6		1	0.7		1	1.4	1.3 - 1.4	2	1.4		1	NR							NR	
Selenium	50	50	ug/L	ND		4	ND		3	ND		3	ND		3	ND		1	1.4						7(2002)	1	
Silica	NS	NS	mg/L	0.74	0.4 - 1.4	4	0.85	0.4 - 1.6	3	7.8	7.4 - 8	3	1	0.9 - 2.8	4	0.33		1	5.8							NR	
Silver	100	NA	ug/L	ND		4	ND		3	ND		3	ND		4	ND		1	ND							NR	
Sodium	NS	NS	mg/L	13		2	14		1	105	100 - 110	2	18	17 - 18	2	12		1	38							NR	
Sulfate	250	NA	mg/L	29		2	28		2	58	57 - 59	3	18		2	23		1	43							NR	
Thallium	2	0.5	ug/L	ND		4	ND		3	ND		3	ND		4	ND		1	ND						ND (2002)	1	
Zinc	5	NA	mg/L	ND		4	ND		3	ND	ND - 0.1	3	ND		4	0.005		1	ND							NR	
Alkalinity	NS	NA	mg/L	86	85 - 87	4	89	83 - 95	3	250	230 - 260	3	68	64 - 71	4	93	89 - 95	3	41								NR
Chlorides	250	NA	mg/L	24	21 - 26	4	29	27 - 31	3	43	40 - 47	3	33	31 - 34	4	20	17 - 22	3	69								NR
Color	15	NA	Color Units	ND	ND - 3	4	ND	ND - 3	3	ND		3	ND	ND - 3	4	ND		3	ND								NR
Conductivity	NS	NS	umhos/cm	300	290 - 320	20	310	290 - 350	18	650	330 - 860	22	265	260 - 270	12	320	0.25 - 570	110	NR								NR
pH	NS	NS	pH units	7.3	7 - 7.8	357	7.5	7.1 - 7.7	168	7.6	7.4 - 7.7	15	7.7	6.9 - 8.6	364	8	7.6 - 9.0	365	9.3	8.1-10.6	2190	7.7	7.4 - 8.0		260		
Total Dissolved Solids	NS	NS	mg/L	195	170 - 240	4	170	150 - 180	3	400	390 - 400	3	160	140 - 180	4	150		1	250								NR
Total Hardness	NS	NS	mg/L	125	120 - 127	2	NR			120		1	93	88 - 97	2	118		12	120								NR
Total Organic Carbon	NS	NS	mg/L	1.6	1.1 - 2.6	4	1.9	1.3 - 2.7	3	ND		3	2.3	1.9 - 3.3	4	1.7	1.6 - 1.9	3	1.4	ND-2.8	12						NR
Surfactants	NS	NS	mg/L	ND		4	ND		3	ND		3	ND		4	ND		3	NR								NR
Turbidity - Entry Point	TT **	NA	NTUs	0.08	0.06 - 0.14	2190	0.03	0.01 - 0.11	490	NR			0.6	0.03 - 0.22	2184	0.15	0.06 - 0.41	50	0.02	0.02-0.05	4380	0.03	0.028-0.092		2190		
Turbidity - Distribution System	TT ***	NA	NTUs	0.014	0.06 - 12	3312	0.14	0.07 - 0.58	119	0.18	0.08 - 0.97	170	0.17	0.07 - 5.1	1233	0.18	0.08 - 0.97	170	0.15	0.08 - 1.0	62	NA					
Chlorine Residual - Entry Point	NA	NA	mg/L	1.23	1.0 - 1.5	365	1.4	0.9 - 1.9	171	0.95	0.07 - 1.8	22	1.23	1.0 - 1.53	365	1.12	0.6 - 2.8	50	1.05	0.87-1.24	8760	1	0.9 - 1.1		365		
Chlorine Residual - Retail Dist.System	TT ****	NA	mg/L	0.8	ND - 2.8	3311	0.77	0.2 - 1.7	119	0.79	0.15 - 2.8	169	0.64	ND - 1.9	1233	0.79	0.15 - 2.8	169	0.5	0.2 - 0.8	62	NA					
Coliform - Retail Dist.System	TT *****	0	%Positive	0.06%		3311	ND		119	ND		169	0.32%		1233	ND		169	ND		62	ND				52	
Cryptosporidium	NS	NS	#/10L	ND		9	ND		5	NR		5	NR		6	ND		24	ND		1 (2002)	ND				2	
Giardia	NS	NS	#/10L	ND		9	ND		5	NR		5	NR		6	ND		24	ND		1 (2002)	ND				2	
Asbestos (Distribution System)	7	7	MFL	ND		1(1998)	NR			NR			NR		1(2002)	NR			NR								

Parameter	EPA/NYS			Shoremont WTP Lake Ontario			Brockport WTP Lake Ontario			Corfu WTP Well			Hemlock WTP Hemlock Lake			ECWA Lake Erie			City of Batavia WTP Ground Water			Town of Ontario WTP Lake Ontario		
	MCL	MCLG	UNITS	Average	Range	Samples in 2003	Average	Range	Samples in 2003	Average	Range	Samples in 2004	Average	Range	Samples in 2003	Average	Range	Samples in 2003	Average	Range	Samples in 2003	Town of Ontario WTP	Range	Samples in 2003
Radionuclides																								
Gross Alpha	15	0	pCi/L	ND		1	ND		1	ND		1	ND	--	4*(2001)	0.4		4	029 (2000)		1	0.47		1
Gross Beta	50	0	pCi/L	ND		1	ND		1	ND		1	ND	--	4*(2001)	1.7		4	1.2 (2000)		1	1.1		1
Tritium	NS	NS	pCi/L	ND		1	ND		1	ND		1	ND			NR		NR			NR			
Combined Radium226/228																1.1		4						
Volatile Organics																								
Benzene	5	0	ug/L			4			3			3			3			1			1			1 (2002)
Bromobenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Bromochloromethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Bromomethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
n-Butylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
sec-Butylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
tert-Butylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Carbon Tetrachloride	5	0	ug/L			4			3			3			3			1			1			1 (2002)
Chlorobenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Chloroethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Chloromethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
2-Chlorotoluene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
4-Chlorotoluene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Dibromomethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,2-Dichlorobenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,3-Dichlorobenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,4-Dichlorobenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Dichlorodifluoromethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,1 Dichloroethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,2-Dichloroethane	5	0	ug/L			4			3			3			3			1			1			1 (2002)
1,1-Dichloroethene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
cis-1,2-Dichloroethene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
trans-1,2-Dichloroethene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,2-Dichloropropane	5	0	ug/L			4			3			3			3			1			1			1 (2002)
1,3-Dichloropropane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
2,2-Dichloropropane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,1-Dichloropropene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,3-Dichloropropene(Cis)	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,3-Dichloropropene(Trans)	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Ethylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Hexachlorobutadiene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Isopropylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
p-Isopropyltoluene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Methyl Tert-butyl ether (MTBE)	50	NA	ug/L			4			3			3			3			1			1			1 (2002)
Methylene Chloride (Dichloromethane)	5	0	ug/L			4			3			3			3			1			1			1 (2002)
n-Propylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Styrene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,1,1,2-Tetrachloroethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,1,2,2-Tetrachloroethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Tetrachloroethene	5	0	ug/L			4			3			3			3			1			1			1 (2002)
Toluene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,2,3-Trichlorobenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,2,4-Trichlorobenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,1,1-Trichloroethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,1,2-Trichloroethane	5	3	ug/L			4			3			3			3			1			1			1 (2002)
Trichloroethene	5	0	ug/L			4			3			3			3			1			1			1 (2002)
Trichlorofluoromethane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,2,3-Trichloropropane	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,2,4-Trimethylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
1,3,5-Trimethylbenzene	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Xylenes	5	NA	ug/L			4			3			3			3			1			1			1 (2002)
Vinyl chloride	2	0	ug/L			4			3			3			3			1			1			1 (2002)

Parameter	EPA/NYS			Shoremont WTP Lake Ontario			Brockport WTP Lake Ontario			Corfu WTP Well			Hemlock WTP Hemlock Lake			ECWA Lake Erie			City of Batavia WTP Ground Water			Town of Ontario WTP Lake Ontario				
	MCL	MCLG	UNITS	Average	Range	Samples in 2003	Average	Range	Samples in 2003	Average	Range	Samples in 2004	Average	Range	Samples in 2003	Average	Range	Samples in 2003	Average	Range	Samples in 2003	Town of Ontario WTP	Range	Samples in 2003		
Organics, Pesticides, Herbicides																										
1, 2-Dibromo-3-Chloropropane	200	0	ng/L			1			1						1			1			1	NR				
1, 2-Dibromoethane (EDB)	50	0	ng/L			3			3						3			3			1	NR				
2, 4, 5-TP (Silvex)	10	NA	ug/L			1			1						1			1			1	NR				
2, 4-D	50	NA	ug/L			1			1						1			1			1	NR				
3-Hydroxycarbofuran	50	NS	ug/L			1			1						1			1			1	NR				
Alachlor	2	0	ug/L			4			3						4			4			1	NR				
Aldicarb	3	1	ug/L			1			1						1			1			1	NR				
Aldicarb Sulfone	2	1	ug/L			1			1						1			1			1	NR				
Aldicarb Sulfoxide	4	1	ug/L			1			1						1			1			1	NR				
Aldrin	5	NA	ug/L			4			4						4			4			1	NR				
Atrazine	3	3	ug/L			4			3						4			4			1	NR				
Benzo(a)pyrene	200	0	ng/L			4			4						4			4			1	NR				
Bis(2-Ethylhexyl)Phthalate	6	0	ug/L			4			3						3			3			1	NR				
Butachlor	50	NA	ug/L			4			3						4			4			1	NR				
Carbaryl	50	NA	ug/L			1			1						1			1			1	NR				
Carbofuran	40	40	ug/L			1			1						1			1			1	NR				
Dalapon	50	NA	ug/L			1			1						1			1			1	NR				
DCPA, Mono & Di-Acid Degradate	50	NS	ug/L			3			2						3			3			1	NR				
Di(2-Ethylhexyl) Adipate	50	NA	ug/L			4			3						4			4			1	NR				
Dicamba	50	NA	ug/L			1			1						1			1			1	NR				
Dieldrin	5	NA	ug/L			4			3						4			4			1	NR				
Dinoseb	7	7	ug/L			1			1						1			1			1	NR				
Dioxin	30	0	pg/L			1			1						1			1				NR				
Diquat	20	20	ug/L			1			1						1			1			1	NR				
Endothall	50	NA	ug/L			1			1						1			1				NR				
Endrin	2	2	ug/L			4			3						4			4			1	NR				
Glyphosate	50	NA	ug/L			1			1						1			1				NR				
Heptachlor	400	0	ng/L			4			3						4			4			1	NR				
Heptachlor Epoxide	200	0	ng/L			4			3						4			4			1	NR				
Hexachlorobenzene	1	0	ug/L			4			3						4			4			1	NR				
Hexachlorocyclopentadiene	5	NA	ug/L			4			3						4			4			1	NR				
Isophorone	50	NA	ug/L			4			3						4			4			1	NR				
Lindane (gamma-BHC)	200	200	ng/L			4			3						4			4			1	NR				
Methomyl	50	NA	ug/L			1			1						1			1			1	NR				
Methoxychlor	40	40	ug/L			4			3						3			3			1	NR				
Metolachlor	50	NA	ug/L			4			3						4			4			1	NR				
Metribuzin	50	NA	ug/L			4			3						4			4			1	NR				
Mirex	5	NA	ug/L			4			3						4			4			1	NR				
Oxamyl	50	NA	ug/L			1			1						1			1			1	NR				
p,p' DDD	5	NA	ug/L			3			2						3			3			1	NR				
p,p' DDE	NS	NS	ug/L			3			2						3			3			1	NR				
p,p' DDT	5	NA	ug/L			3			2						3			3			1	NR				
PCB's Total	500	0	ng/L			3			2						3			3			1	NR				
Pentachlorophenol	1	0	ug/L			4			3						4			4			1	NR				
Pichloram	50	NA	ug/L			1			1						1			1			1	NR				
Propachlor	50	NA	ug/L			4			3						4			4			1	NR				
Simazine	4	4	ug/L			4			3						4			4			1	NR				
Total Chlordane	2	0	ug/L			4			3						4			4			1	NR				
Toxaphene	3	0	ug/L			3			2						3			3			1	NR				
Perchlorate	NS	NS	ug/L			4*(2001)			4*(2001)		NR				4*(2001)			4*(2001)			1	NR				
Disinfectant Byproducts																										
Total THMs	80	NA	ug/L	32	19 - 57	16	28	16 - 45	12						45	19 - 67	4	64	40 - 97	6	48	42 - 54	3	26	16-36	4
Haloacetic Acids	60	NA	ug/L	12	5 - 22	16	12	5 - 28	12						24	14 - 33	4	23	10 - 25	6	16	10 - 22	3	8	38028	4
Chlorite	1	0.8	mg/L	NR			26	0.084- 0.36	27	NR					NR			NR			NR					

Key		
Not Detected = ND = absent or present at less than testing method detection level. All testing methods are EPA approved with detection limits much less than the MCL.	MFL = million fibers per liter, a measure of the presence of asbestos fibers longer than 10 micrometers *(year) = Most recent testing. Monitoring frequency requirements vary depending on compound.	** = 95% of measurements within a given month must be less than <0.3 NTUs. *** = Average of monthly distribution system turbidity samples must be less than 5.0 NTUs. **** = 95% of monthly distribution system samples must have a measurable chlorine residual.
NA = Not applicable NR = Not required NS = No standard NT = Not Tested	*Action level: If >10% of results are greater than 15 ug/l for lead or 1.3 mg/L for copper, remedial steps are required. In MCWA's combined retail area, 90% of the samples were less than 7 ug/L for lead and 0.140 mg/L for copper. MCL = Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as possible. MCLG = Maximum Contaminant Level Goal, the level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.	Note: Total Hardness is also expressed in grains per gallon. The Total Hardness of the Ontario and Hemlock supplies are 7.6 and 5.6 grains per gallon respectively.
mg/l = milligram (1/1,000 of a gram) per liter = ppm = parts per million ug/l = microgram (1/1,000,000 of a gram) per liter = ppb = parts per billion ng/L = nanogram (1/1,000,000,000 of a gram) per liter = ppt = parts per trillion pg/L = picogram (1/1,000,000,000,000 of a gram) per liter = ppq = parts per quadrillion pCi/L = pCiCuries per liter NTU = Nephelometric turbidity Unit, a measure of the clarity of water.	TT = Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water. AL = Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.	