

Milwaukee Water Works

Safe, Abundant Drinking Water.

Annual Water Quality Report 2009

Tests of Lake Michigan water, source of Milwaukee's drinking water

The Milwaukee Water Works fully complies with all Federal and State drinking water quality regulations.

	MAXIMUM (mg/L)	MINIMUM (mg/L)	MEDIAN (mg/L)
Clarity			
Turbidity , NTU	152.0	0.12	0.64
Microbiological			
Coliform, Total, Presence in 100mL	375	<1	5
Cryptosporidium parvum, oocysts/1L*	<0.020	<0.011	<0.020
Giardia lamblia, cysts/1L**	0.040	<0.011	<0.020
Heterotrophic Plate Count, cfu/1mL	82.0	<1	4
Viruses (IFU/100 L)			
Adenovirus	<1.03	<1.03	<1.03
Coxsackie A	<1.03	<1.03	<1.03
Coxsackie B	<1.03	<1.03	<1.03
Echovirus	<1.03	<1.03	<1.03
Polio virus	<1.03	<1.03	<1.03
Reovirus	<1.03	<1.03	<1.03
Chemical & Physical Parameters			
Alkalinity, as CaCO ₃	121	99	107
Carbon dioxide, free, calc.	2.00	0.66	1.88
Conductivity, uS/cm	463	262	297
Hardness, Total, as CaCO ₃	154	131	134
Hardness, Calcium, as CaCO ₃	112	85	92
Hardness, Magnesium, as CaCO ₃	53	19	42
Odor (Threshold Odor Number)	1	1	1
pH	8.46	7.98	8.18
Saturation Index	0.79	-0.17	0.21
Specific UV absorbance, L/mg-M, calc.	1.5	0.6	1.2
Temperature, degrees Celsius	20.4	-0.5	7.1
Total Dissolved Solids (TDS)	186	160	171
Total Solids	170	165	160
Total Suspended Solids	<10	<10	<10
Total Organic Carbon	3.3	1.3	1.7
UV-254 (cm-1)	0.029	0.018	0.021

Inorganic Chemicals

Aluminum	0.167	<0.003	0.016
Ammonia, as Nitrogen	<0.1	<0.1	<0.1
Antimony	<0.001	<0.001	<0.001
Arsenic	<0.002	<0.002	<0.002
Barium	0.023	0.019	0.022
Beryllium	<0.003	<0.003	<0.003
Boron	0.025	0.022	0.024
Bromate	<0.002	<0.002	<0.002
Bromide	0.035	0.014	0.030
Cadmium	<0.001	<0.001	<0.001
Calcium	37	34	35
Cerium	<0.001	<0.001	<0.001
Cesium	<0.001	<0.001	<0.001
Chlorate	0.038	0.006	0.015
Chloride	16.0	11.0	12.1
Chlorite	<0.005	<0.005	<0.005
Chromium	<0.002	<0.002	<0.002
Cobalt	<0.001	<0.001	<0.001
Copper	0.049	<0.002	0.006
Cyanide	<0.020	<0.020	<0.020
Dysprosium	<0.001	<0.001	<0.001
Erbium	<0.001	<0.001	<0.001
Europium	<0.001	<0.001	<0.001
Fluoride	0.14	0.08	0.11
Gadolinium	<0.001	<0.001	<0.001
Gallium	<0.001	<0.001	<0.001
Germanium	<0.001	<0.001	<0.001
Gold	<0.001	<0.001	<0.001
Hafnium	<0.001	<0.001	<0.001
Holmium	<0.001	<0.001	<0.001
Iridium	<0.001	<0.001	<0.001
Iron	0.079	<0.003	0.010
Lanthanum	<0.001	<0.001	<0.001
Lead	<0.002	<0.002	<0.002
Lithium	0.0025	0.0020	0.0022
Lutetium	0.0046	0.0033	0.0040
Magnesium	12	12	12
Manganese	0.0021	<0.0020	<0.0020
Mercury	<0.0001	<0.0001	<0.0001
Molybdenum	<0.002	<0.002	<0.002
Neodymium	<0.001	<0.001	<0.001
Nickel	0.0020	<0.001	<0.001
Niobium	<0.001	<0.001	<0.001
Nitrate, as Nitrogen	0.400	0.170	0.270
Nitrate and Nitrite, Total, as Nitrogen	0.414	0.170	0.270
Nitrite, as Nitrogen	0.017	<0.005	<0.005
Nitrogen, Kjeldahl	<0.500	<0.500	<0.500
Osmium	<0.001	<0.001	<0.001
Palladium	0.0150	0.0100	0.0120
Perchlorate	0.00010	0.00010	0.00010
Phosphate, Ortho	0.12	0.10	0.10
Phosphorous	0.050	<0.050	<0.050
Platinum	<0.001	<0.001	<0.001
Potassium	1.6	0.8	1.4

Praseodymium	<0.001	<0.001	<0.001
Protactinium	<0.001	<0.001	<0.001
Rhenium	<0.001	<0.001	<0.001
Rhodium	<0.001	<0.001	<0.001
Rubidium	0.0018	0.0013	0.0014
Ruthenium	<0.001	<0.001	<0.001
Samarium	<0.001	<0.001	<0.001
Selenium	<0.002	<0.002	<0.002
Silicon	4.9	1.7	2.1
Silver	<0.0005	<0.0005	<0.0005
Sodium	19.96	5.66	7.71
Strontium	0.120	0.110	0.120
Sulfate	23.0	20.0	21.8
Tantalum	<0.001	<0.001	<0.001
Tellurium	<0.001	<0.001	<0.001
Thallium	<0.0004	<0.0004	<0.0004
Thorium	<0.002	<0.002	<0.002
Thulium	<0.001	<0.001	<0.001
Tin	<0.005	<0.005	<0.005
Titanium	0.0078	<0.0010	0.0019
Tungsten	<0.001	<0.001	<0.001
Uranium	<0.001	<0.001	<0.001
Vanadium	0.0027	<0.0010	0.001
Ytterbium	<0.001	<0.001	<0.001
Zinc	0.040	<0.010	<0.010
Zirconium	0.0021	<0.0010	0.0015

Organic Chemicals

Acenaphthene	<0.0001	<0.0001	<0.0001
Acenaphthylene	<0.0001	<0.0001	<0.0001
Acetaldehyde	<0.005	<0.005	<0.005
Acetochlor	<0.0001	<0.0001	<0.0001
Acetone (2008)	<0.0050	<0.0050	<0.0050
Acrylonitrile	<0.0010	<0.0010	<0.0010
Adipate, di(2-ethylhexyl)	<0.0006	<0.0006	<0.0006
Alachlor	<0.0001	<0.0001	<0.0001
Aldehydes, Total	<0.005	<0.005	<0.005
Aldicarb (Temik)	<0.0005	<0.0005	<0.0005
Aldicarb sulfone	<0.0007	<0.0007	<0.0007
Aldicarb sulfoxide	<0.0005	<0.0005	<0.0005
Aldrin	<0.0001	<0.0001	<0.0001
Allyl chloride	<0.0050	<0.0050	<0.0050
tert-Amyl Methyl ether	<0.0030	<0.0030	<0.0030
Ametryn	<0.0001	<0.0001	<0.0001
Anilazine	<0.0010	<0.0010	<0.0010
Anthracene	<0.0001	<0.0001	<0.0001
Aspon	<0.0001	<0.0001	<0.0001
Atraton	<0.0001	<0.0001	<0.0001
Atrazine	<0.0001	<0.0001	<0.0001
Azinphos-ethyl	<0.0005	<0.0005	<0.0005
Azinphos-methyl	<0.0005	<0.0005	<0.0005
Bendiocarb	<0.0005	<0.0005	<0.0005
Benfluralin	<0.0001	<0.0001	<0.0001
Benzaldehyde	<0.005	<0.005	<0.005
Benzene	<0.0005	<0.0005	<0.0005

alpha-Benzene hexachloride	<0.0001	<0.0001	<0.0001
beta-Benzene hexachloride	<0.0001	<0.0001	<0.0001
delta-Benzene hexachloride	<0.0001	<0.0001	<0.0001
gamma-Benzene hexachloride (Lindane)	<0.00002	<0.00002	<0.00002
Benzo(a)anthracene	<0.0001	<0.0001	<0.0001
Benzo(b)fluoranthene	<0.0001	<0.0001	<0.0001
Benzo(k)fluoranthene	<0.0001	<0.0001	<0.0001
Benzo(g, h, i)perylene	<0.0001	<0.0001	<0.0001
Benzo(a)pyrene	<0.00002	<0.00002	<0.00002
Bolstar	<0.0001	<0.0001	<0.0001
Bromacil	<0.0001	<0.0001	<0.0001
Bromobenzene	<0.0005	<0.0005	<0.0005
Bromochloromethane	<0.0005	<0.0005	<0.0005
Bromodichloromethane	<0.0005	<0.0005	<0.0005
Bromoform	<0.0005	<0.0005	<0.0005
Bromomethane	<0.0005	<0.0005	<0.0005
Butachlor	<0.0001	<0.0001	<0.0001
2-Butanone (MEK)	<0.0050	<0.0050	<0.0050
tert-Butyl alcohol	<0.0020	<0.0020	<0.0020
n-Butylacrylate	<0.0010	<0.0010	<0.0010
Butylate	<0.0001	<0.0001	<0.0001
n-Butylbenzene	<0.0005	<0.0005	<0.0005
sec-Butylbenzene	<0.0005	<0.0005	<0.0005
tert-Butylbenzene	<0.0005	<0.0005	<0.0005
Butylbenzylphthalate	<0.0010	<0.0010	<0.0010
Butyraldehyde (Butanal)	<0.005	<0.005	<0.005
Carbaryl	<0.0005	<0.0005	<0.0005
Carbofuran	<0.0009	<0.0009	<0.0009
Carbon disulfide	<0.0050	<0.0050	<0.0050
Carbon Tetrachloride	<0.0005	<0.0005	<0.0005
Carbophenothion	<0.0005	<0.0005	<0.0005
Carboxin	<0.0001	<0.0001	<0.0001
Chlordane	<0.0001	<0.0001	<0.0001
Chlordane, alpha	<0.0001	<0.0001	<0.0001
Chlordane, gamma	<0.0001	<0.0001	<0.0001
Chlorfenvinphos	<0.0050	<0.0050	<0.0050
Chloroacetonitrile	<0.0050	<0.0050	<0.0050
Chlorobenzene	<0.0050	<0.0050	<0.0050
Chlorobenzilate	<0.0001	<0.0001	<0.0001
2-Chlorobiphenyl	<0.0001	<0.0001	<0.0001
1-Chlorobutane	<0.0050	<0.0050	<0.0050
Chloroethane	<0.0005	<0.0005	<0.0005
Chloroform	<0.0005	<0.0005	<0.0005
Chloromethane	<0.0005	<0.0005	<0.0005
Chloroneb	<0.0001	<0.0001	<0.0001
Chloroprene	<0.0050	<0.0050	<0.0050
Chloropropylate	<0.0001	<0.0001	<0.0001
Chlorothalonil	<0.0001	<0.0001	<0.0001
o-Chlorotoluene	<0.0005	<0.0005	<0.0005
p-Chlorotoluene	<0.0005	<0.0005	<0.0005
Chlorpropham	<0.0001	<0.0001	<0.0001
Chlorpyrifos	<0.0001	<0.0001	<0.0001
Chlorpyrifos methyl	<0.0005	<0.0005	<0.0005
Chrysene	<0.0001	<0.0001	<0.0001
Clomazone	<0.0001	<0.0001	<0.0001

Clopyralid	<0.010	<0.010	<0.010
Coumaphos	<0.0001	<0.0001	<0.0001
Crotonaldehyde	<0.005	<0.005	<0.005
Crotoxypfos	<0.0005	<0.0005	<0.0005
Cyanazine	<0.0001	<0.0001	<0.0001
Cycloate	<0.0001	<0.0001	<0.0001
Cyclohexanone	<0.005	<0.005	<0.005
2,4-D	<0.0001	<0.0001	<0.0001
DCPA	<0.0001	<0.0001	<0.0001
4,4'-DDD	<0.0001	<0.0001	<0.0001
4,4'-DDE	<0.0001	<0.0001	<0.0001
4,4'-DDT	<0.0001	<0.0001	<0.0001
Dalapon	<0.001	<0.001	<0.001
Decanal	<0.005	<0.005	<0.005
Deethylatrazine	<0.0010	<0.0010	<0.0010
Deisopropylatrazine	<0.0010	<0.0010	<0.0010
Demeton O	<0.0005	<0.0005	<0.0005
Demeton S	<0.0005	<0.0005	<0.0005
Desethylatrazine	<0.0010	<0.0010	<0.0010
Desisopropylatrazine	<0.0010	<0.0010	<0.0010
Diazinon	<0.0001	<0.0001	<0.0001
Dibenzo(a,h)anthracene	<0.0001	<0.0001	<0.0001
1,2-Dibromoethane (EDB)	<0.0002	<0.0002	<0.0002
Dibromochloromethane	0.0014	<0.0005	<0.0005
Dibromomethane	<0.0005	<0.0005	<0.0005
1-2 Dibromo 3 chloropropane (DBCP)	<0.0002	<0.0002	<0.0002
Di-n-butylphthalate	<0.0020	<0.0020	<0.0020
Dicamba	<0.0001	<0.0001	<0.0001
Dichlobenil	<0.0001	<0.0001	<0.0001
Dichlofenthion	<0.0001	<0.0001	<0.0001
Dichloran	<0.0005	<0.0005	<0.0005
2,3-Dichlorobiphenyl	<0.0001	<0.0001	<0.0001
Dichlorvos	<0.0001	<0.0001	<0.0001
1,2-Dichlorobenzene	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene	<0.0005	<0.0005	<0.0005
1,4-Dichlorobenzene	<0.0005	<0.0005	<0.0005
trans-1,2-Dichloro-2-butylene	<0.0050	<0.0050	<0.0050
Dichlorodifluoromethane	<0.0005	<0.0005	<0.0005
1,1-Dichloroethane	<0.0005	<0.0005	<0.0005
1,2-Dichloroethane	<0.0005	<0.0005	<0.0005
Di (2-chloroethyl) ether	<0.0020	<0.0020	<0.0020
1,1-Dichloroethylene	<0.0005	<0.0005	<0.0005
1,2-Dichloroethylene, cis	<0.0005	<0.0005	<0.0005
1,2-Dichloroethylene, trans	<0.0005	<0.0005	<0.0005
Dichloromethane (methylene chloride)	<0.0005	<0.0005	<0.0005
1,2-Dichloropropane	<0.0005	<0.0005	<0.0005
1,3-Dichloropropane	<0.0005	<0.0005	<0.0005
2,2-Dichloropropane	<0.0005	<0.0005	<0.0005
1,1-Dichloropropanone	<0.0050	<0.0050	<0.0050
1,1-Dichloropropene	<0.0005	<0.0005	<0.0005
1,3-Dichloropropene	<0.0005	<0.0005	<0.0005
1,1-Dichloropropylene	<0.0005	<0.0005	<0.0005
cis 1,3-Dichloropropylene	<0.0005	<0.0005	<0.0005
trans 1,3-Dichloropropylene	<0.0005	<0.0005	<0.0005
Dicrotophos	<0.0005	<0.0005	<0.0005

Dieldrin	<0.0001	<0.0001	<0.0001
Di (2-ethylhexyl) adipate	<0.0006	<0.0006	<0.0006
Di (2-ethylhexyl) phthalate	<0.0006	<0.0006	<0.0006
Diethylether (2005)	<0.002	<0.002	<0.002
Diethylphthalate	<0.0010	<0.0010	<0.0010
Dimethoate	<0.0005	<0.0005	<0.0005
Dimethylphthalate	<0.0010	<0.0010	<0.0010
2,4-Dinitrotoluene	<0.0005	<0.0005	<0.0005
2,6-Dinitrotoluene	<0.0005	<0.0005	<0.0005
Di-n-octylphthataate	<0.0020	<0.0020	<0.0020
Dinoseb	<0.0001	<0.0001	<0.0001
1,4-Dioxane	<0.0050	<0.0050	<0.0050
Dioxathion	<0.0005	<0.0005	<0.0005
Dioxin (2,3,7,8-TCDD)	<0.000000005	<0.000000005	<0.000000005
Diphenamid	<0.0001	<0.0001	<0.0001
Diquat	<0.0004	<0.0004	<0.0004
Disulfoton	<0.0001	<0.0001	<0.0001
Disulfoton sulfone	<0.0001	<0.0001	<0.0001
Disulfoton sulfoxide	<0.010	<0.010	<0.010
Endosulfan I	<0.0001	<0.0001	<0.0001
Endosulfan II	<0.0001	<0.0001	<0.0001
Endosulfan sulfate	<0.0001	<0.0001	<0.0001
Endothall	<0.0090	<0.0090	<0.0090
Endrin	<0.00001	<0.00001	<0.00001
Endrin aldehyde	<0.0005	<0.0005	<0.0005
Epichlorohydrin	<0.0010	<0.0010	<0.0010
EPN	<0.0005	<0.0005	<0.0005
EPTC	<0.0001	<0.0001	<0.0001
Erucylamide	<0.005	<0.005	<0.005
Esfenvalerate	<0.0005	<0.0005	<0.0005
Ethalfuralin	<0.0001	<0.0001	<0.0001
Ethion	<0.0050	<0.0050	<0.0050
Ethofumesate	<0.0005	<0.0005	<0.0005
Ethoprop	<0.001	<0.001	<0.001
Ethylacrylate	<0.0010	<0.0010	<0.0010
Ethylbenzene	<0.0005	<0.0005	<0.0005
Ethylene dibromide (EDB)	<0.00001	<0.00001	<0.00001
Ethyl ether	<0.0020	<0.0020	<0.0020
Ethyl methacrylate	<0.0010	<0.0010	<0.0010
Ethyl tert-butyl ether	<0.0030	<0.0030	<0.0030
Etridiazole	<0.0001	<0.0001	<0.0001
Famphur	<0.0001	<0.0001	<0.0001
Fenamiphos	<0.0001	<0.0001	<0.0001
Fenarimol	<0.0010	<0.0010	<0.0010
Fenitroton	<0.0005	<0.0005	<0.0005
Fenoxypop-ethyl	<0.0010	<0.0010	<0.0010
Fensulfothion	<0.0005	<0.0005	<0.0005
Fenthion	<0.0001	<0.0001	<0.0001
Fluazifop-butyl	<0.0001	<0.0001	<0.0001
Fluchloralin	<0.0001	<0.0001	<0.0001
Fluometuron	<0.0005	<0.0005	<0.0005
Fluoranthene	<0.0001	<0.0001	<0.0001
Fluorene	<0.0001	<0.0001	<0.0001
Fluridone	<0.0010	<0.0010	<0.0010
Fonofos	<0.0001	<0.0001	<0.0001

Formaldehyde	<0.005	<0.005	<0.005
Glyoxal	<0.005	<0.005	<0.005
Glyphosate (Round-up)	<0.0060	<0.0060	<0.0060
Heptachlor	<0.00004	<0.00004	<0.00004
Heptachlor epoxide	<0.00002	<0.00002	<0.00002
2,2',3,3',4,4',6-Heptachlorobiphenyl	<0.0005	<0.0005	<0.0005
Heptanal	<0.005	<0.005	<0.005
Hexachlorobenzene	<0.0001	<0.0001	<0.0001
2,2',4,4',5,6'-Hexachlorobiphenyl	<0.0001	<0.0001	<0.0001
Hexachlorobutadiene	<0.0005	<0.0005	<0.0005
Hexachloroethane	<0.002	<0.002	<0.002
Hexachlorocyclopentadiene	<0.0001	<0.0001	<0.0001
Hexanal	<0.005	<0.005	<0.005
2-Hexanone	<0.0050	<0.0050	<0.0050
Hexazione	<0.0001	<0.0001	<0.0001
3-Hydroxycarbofuran	<0.0005	<0.0005	<0.0005
Indeno(1,2,3-cd)pyrene	<0.0001	<0.0001	<0.0001
Iprodione	<0.0005	<0.0005	<0.0005
Isofenphos	<0.0005	<0.0005	<0.0005
Isophorone	<0.0001	<0.0001	<0.0001
Isopropylbenzene	<0.0005	<0.0005	<0.0005
4-Isopropyltoluene (p-)	<0.0005	<0.0005	<0.0005
Leptophos	<0.0005	<0.0005	<0.0005
Lindane	<0.00002	<0.00002	<0.00002
Malathion	<0.0001	<0.0001	<0.0001
Merphos (2004)	<0.002	<0.002	<0.002
Metalazyl	<0.0005	<0.0005	<0.0005
Methacrylonitrile	<0.0050	<0.0050	<0.0050
Methomyl	<0.0005	<0.0005	<0.0005
Methoxychlor	<0.0001	<0.0001	<0.0001
Methylacrylate	<0.0010	<0.0010	<0.0010
Methyl iodide (Iodomethane)	<0.0020	<0.0020	<0.0020
Methylmethacrylate	<0.0010	<0.0010	<0.0010
1-Methyl naphthalene	<0.0001	<0.0001	<0.0001
2-Methyl naphthalene	<0.0001	<0.0001	<0.0001
Methyl paraoxon	<0.0005	<0.0005	<0.0005
Methyl parathion	<0.0005	<0.0005	<0.0005
4-Methyl-2-pentanone (MIBK)	<0.0020	<0.0020	<0.0020
2-Methyl-2-propanol (2006)	<0.0020	<0.0020	<0.0020
Methyl-t-butyl ether (MBTE)	<0.0005	<0.0005	<0.0005
Metolachlor (Dual)	<0.0001	<0.0001	<0.0001
Metribuzin (Sencor)	<0.0001	<0.0001	<0.0001
Metsulfuron methyl	<0.010	<0.010	<0.010
Mevinphos	<0.0001	<0.0001	<0.0001
MGK-264 isomer a	<0.0001	<0.0001	<0.0001
MGK-264 isomer b	<0.0001	<0.0001	<0.0001
MGK-326	<0.0001	<0.0001	<0.0001
Mirex	<0.0005	<0.0005	<0.0005
Molinate	<0.0001	<0.0001	<0.0001
Monocrotophos	<0.0005	<0.0005	<0.0005
Naled	<0.0005	<0.0005	<0.0005
Naphthalene	<0.0005	<0.0005	<0.0005
Napropamide	<0.0001	<0.0001	<0.0001
Nitrobenzene	<0.0050	<0.0050	<0.0050
2-Nitropropane	<0.0020	<0.0020	<0.0020

Norflurazon	<0.0010	<0.0010	<0.0010
cis-Nonachlor	<0.0001	<0.0001	<0.0001
trans-Nonachlor	<0.0001	<0.0001	<0.0001
Nonanal	<0.005	<0.005	<0.005
2,2',3,3',4,5',6,6'-Octachlorobiphenyl	<0.0005	<0.0005	<0.0005
Octanal	<0.005	<0.005	<0.005
Oryzalin	<0.010	<0.010	<0.010
Oxadiazon	<0.0001	<0.0001	<0.0001
Oxamyl (Vydate)	<0.0010	<0.0010	<0.0010
Oxychlorane	<0.0001	<0.0001	<0.0001
Oxyfluorfen	<0.0005	<0.0005	<0.0005
Parathion	<0.0005	<0.0005	<0.0005
Pebulate	<0.0001	<0.0001	<0.0001
Pendimethalin	<0.0001	<0.0001	<0.0001
Pentachlorobenzene	<0.0005	<0.0005	<0.0005
Pentachloronitrobenzene	<0.0005	<0.0005	<0.0005
2,2',3',4,6-Pentachlorobiphenyl	<0.0001	<0.0001	<0.0001
Pentachloroethane	<0.0020	<0.0020	<0.0020
Pentachlorophenol	<0.00004	<0.00004	<0.00004
PAHs(benzo(a)-pyrene)	<0.00002	<0.00002	<0.00002
cis-Permethrin	<0.0001	<0.0001	<0.0001
trans-Permethrin	<0.0001	<0.0001	<0.0001
Phthalate, (di(2-ethylhexyl))	<0.0006	<0.0006	<0.0006
Phenanthrene	<0.0001	<0.0001	<0.0001
Phorate	<0.0001	<0.0001	<0.0001
Phosmet	<0.0005	<0.0005	<0.0005
E-Phosphamidon	<0.0005	<0.0005	<0.0005
Z-Phosphamidon	<0.0005	<0.0005	<0.0005
Picloram (Tordon)	<0.0001	<0.0001	<0.0001
Polychlorinated Byphenyls (PCB's), Total***			
Aroclor 1016	<0.00008	<0.00008	<0.00008
Aroclor 1221	<0.00019	<0.00019	<0.00019
Aroclor 1232	<0.00023	<0.00023	<0.00023
Aroclor 1242	<0.00026	<0.00026	<0.00026
Aroclor 1248	<0.0001	<0.0001	<0.0001
Aroclor 1254	<0.0001	<0.0001	<0.0001
Aroclor 1260	<0.0002	<0.0002	<0.0002
Profluralin	<0.0001	<0.0001	<0.0001
Prometon	<0.0010	<0.0010	<0.0010
Prometryn	<0.0001	<0.0001	<0.0001
Pronamide	<0.0001	<0.0001	<0.0001
Propachlor	<0.0001	<0.0001	<0.0001
Propanil	<0.0005	<0.0005	<0.0005
Propazine	<0.0001	<0.0001	<0.0001
Propiconazole isomer a	<0.0050	<0.0050	<0.0050
Propiconazole isomer b	<0.0050	<0.0050	<0.0050
Propionaldehyde (Propanal)	<0.005	<0.005	<0.005
Propionitrile	<0.0050	<0.0050	<0.0050
n-Propylbenzene	<0.0005	<0.0005	<0.0005
Prothiofos	<0.0005	<0.0005	<0.0005
Pyrene	<0.0001	<0.0001	<0.0001
Pyruvaldehyde (Methylglyoxal)	<0.005	<0.005	<0.005
Simazine	<0.00007	<0.00007	<0.00007
Simetryn	<0.0001	<0.0001	<0.0001
Stirofos	<0.0001	<0.0001	<0.0001

Styrene	<0.0005	<0.0005	<0.0005
Sulfotep	<0.0005	<0.0005	<0.0005
Tebuthiuron	<0.010	<0.010	<0.010
TEPP	<0.001	<0.001	<0.001
Terbacil	<0.0001	<0.0001	<0.0001
Terbufos	<0.0005	<0.0005	<0.0005
Terbutryn	<0.0001	<0.0001	<0.0001
1,2,4,5-Tetrachlorobenzene	<0.0005	<0.0005	<0.0005
2,2',4,4'-Tetrachlorobiphenyl	<0.0001	<0.0001	<0.0001
1,1,1,2-Tetrachloroethane	<0.0005	<0.0005	<0.0005
1,1,2,2-Tetrachloroethane	<0.0005	<0.0005	<0.0005
Tetrachloroethylene	<0.0005	<0.0005	<0.0005
Tetrahydrofuran	<0.0050	<0.0050	<0.0050
Thiabendazole	<0.010	<0.010	<0.010
Thiobencarb	<0.0001	<0.0001	<0.0001
Thionazin	<0.0005	<0.0005	<0.0005
Toluene	<0.0005	<0.0005	<0.0005
Toxaphene	<0.0010	<0.0010	<0.0010
2,4,5-TP (Silvex)	<0.0001	<0.0001	<0.0001
Triademefon	<0.0005	<0.0005	<0.0005
Tribufos (DEF)	<0.0001	<0.0001	<0.0001
Trichlorfon	<0.0005	<0.0005	<0.0005
1,2,3-Trichlorobenzene	<0.0005	<0.0005	<0.0005
1,2,4-Trichlorobenzene	<0.0005	<0.0005	<0.0005
2,4,5-Trichlorobiphenyl	<0.0001	<0.0001	<0.0001
1,1,1-Trichloroethane	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	<0.0005	<0.0005	<0.0005
Trichloroethylene	<0.0005	<0.0005	<0.0005
Trichlorofluoromethane	<0.0005	<0.0005	<0.0005
Trichloronate	<0.0005	<0.0005	<0.0005
1,2,3-Trichloropropane	<0.0005	<0.0005	<0.0005
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.0005	<0.0005	<0.0005
Tricyclazole	<0.0010	<0.0010	<0.0010
1,2,3-Trimethylbenzene	<0.0005	<0.0005	<0.0005
1,2,4-Trimethylbenzene	<0.0005	<0.0005	<0.0005
1,3,5-Trimethylbenzene	<0.0005	<0.0005	<0.0005
Trifluralin	<0.0001	<0.0001	<0.0001
Trihalomethanes, total	<0.0005	<0.0005	<0.0005
n-Valeraldehyde (Pentanal)	<0.005	<0.005	<0.005
Vernolate	<0.0001	<0.0001	<0.0001
Vinclozolin	<0.0005	<0.0005	<0.0005
Vinyl acetate	<0.0050	<0.0050	<0.0050
Vinyl Chloride	<0.0002	<0.0002	<0.0002
Xylene, total	<0.0005	<0.0005	<0.0005

Estrogens and Other Hormones (EDCs)

Diethylstilbestrol (DES)	<0.0000005	<0.0000005	<0.0000005
17alpha-Estradiol	<0.0000005	<0.0000005	<0.0000005
17beta-Estradiol	<0.0000005	<0.0000005	<0.0000005
Estriol	<0.0000005	<0.0000005	<0.0000005
Estrone	<0.0000005	<0.0000005	<0.0000005
17alpha-Ethynl estradiol	<0.0000005	<0.0000005	<0.0000005
Progesterone	<0.0000001	<0.0000001	<0.0000001
cis-Testosterone	<0.0000001	<0.0000001	<0.0000001
trans-Testosterone	<0.0000001	<0.0000001	<0.0000001

Explosives and Related Compounds (2006)

2-Amino-4,6-dinitrotoluene	<0.0005	<0.0005	<0.0005
4-Amino-2,6-dinitrotoluene	<0.0005	<0.0005	<0.0005
3,5-Dinitroaniline	<0.0005	<0.0005	<0.0005
1,3-Dinitrobenzene	<0.0005	<0.0005	<0.0005
2,4-Dinitrotoluene	<0.0005	<0.0005	<0.0005
2,6-Dinitrotoluene	<0.0005	<0.0005	<0.0005
Nitrobenzene	<0.0005	<0.0005	<0.0005
2-Nitrotoluene	<0.0005	<0.0005	<0.0005
3-Nitrotoluene	<0.0005	<0.0005	<0.0005
4-Nitrotoluene	<0.0005	<0.0005	<0.0005
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)	<0.0005	<0.0005	<0.0005
Tetryl (2,4,6-Trinitrophenylmethyl nitramine)	<0.0010	<0.0010	<0.0010
TNT (2,4,6-Trinitrotoluene)	<0.0005	<0.0005	<0.0005
1,3,5-Trinitrobenzene	<0.0005	<0.0005	<0.0005

Flame Retardants and Selected Pesticides**** (2006)

Atrazine	<0.00025	<0.00025	<0.00025
Bifenthrin	<0.00025	<0.00025	<0.00025
Bromacil	<0.00025	<0.00025	<0.00025
Chlorpyrifos	<0.00025	<0.00025	<0.00025
Dimethoate	<0.00025	<0.00025	<0.00025
Esbiof	<0.00025	<0.00025	<0.00025
Esfenvalerate	<0.00025	<0.00025	<0.00025
Fenvalerate	<0.00025	<0.00025	<0.00025
Hexabromobiphenyl	<0.00025	<0.00025	<0.00025
2,2',4,4',4,4'-Hexabromodiphenyl ether (BDE-153)	<0.00025	<0.00025	<0.00025
Hexazinone	<0.00025	<0.00025	<0.00025
Kepone	<0.00025	<0.00025	<0.00025
Malathion	<0.00025	<0.00025	<0.00025
Mirex	<0.00025	<0.00025	<0.00025
Nitrofen	<0.00025	<0.00025	<0.00025
Norflurazon	<0.00025	<0.00025	<0.00025
Oxychlorane	<0.00025	<0.00025	<0.00025
Parathion	<0.00025	<0.00025	<0.00025
2,2',4,4',5-Pentabromodiphenyl ether (BDE-99)	<0.00025	<0.00025	<0.00025
2,2',4,4',6-Pentabromodiphenyl ether (BDE-100)	<0.00025	<0.00025	<0.00025
Prometryn	<0.00025	<0.00025	<0.00025
Propazine	<0.00025	<0.00025	<0.00025
Terbufos-sulfone	<0.00025	<0.00025	<0.00025
2,2',4,4'-Tetrabromodiphenyl ether (BDE-47)	<0.00025	<0.00025	<0.00025
Thiobencarb	<0.00025	<0.00025	<0.00025
Vinclozolin	<0.00025	<0.00025	<0.00025

Fluoropolymers

Perfluorooctane sulfonate (PFOS)	0.0000018	0.0000015	0.0000017
Perfluorooctanoic acid (PFOA)	<0.000010	<0.000010	<0.000010
Perfluorobutanoic acid (PFBA)	<0.0000002	<0.0000002	<0.0000002

Phosphate Flame Retardants (2008)

Diphenylcresyl phosphate	<0.0001	<0.0001	<0.0001
2-Ethylhexyldiphenyl phosphate	<0.0001	<0.0001	<0.0001
Tributyl phosphate	<0.0001	<0.0001	<0.0001
Triethyl phosphate	<0.0001	<0.0001	<0.0001

Tri-m-cresyl phosphate	<0.0001	<0.0001	<0.0001
Tri-o-cresyl phosphate	<0.0001	<0.0001	<0.0001
Tri-p-cresyl phosphate	<0.0001	<0.0001	<0.0001
Trimethyl phosphate (Semi-Quantitative)	<0.0001	<0.0001	<0.0001
Tripenyl phosphate	<0.0001	<0.0001	<0.0001
Triphenyl phosphate	<0.0001	<0.0001	<0.0001
Tris(2-butoxyethyl) phosphate	<0.0005	<0.0005	<0.0005
Tris(2-chloroethyl) phosphate	<0.0001	<0.0001	<0.0001
Tris(chloropropyl) phosphate	<0.0001	<0.0001	<0.0001
Tris(2,3-dibromopropyl) phosphate	<0.0010	<0.0010	<0.0010
Tris(1,3-dichloro-2-propyl) phosphate	<0.0001	<0.0001	<0.0001
Tris(2-ethylhexyl) phosphate	<0.0001	<0.0001	<0.0001

Nitrosamines

N-Nitropyrrolidine (NPYR)	<0.0000020	<0.0000020	<0.0000020
N-Nitrosodi-N-butylamine (NDBA)	<0.0000040	<0.0000040	<0.0000040
N-Nitrosodiethylamine (NDEA)	<0.0000050	<0.0000050	<0.0000050
N-Nitrosodimethylamine (NDMA)	<0.0000020	<0.0000020	<0.0000020
N-Nitrosodi-N-propylamine (NDPA)	<0.0000070	<0.0000070	<0.0000070
N-Nitrosomethylethylamine (NMEA)	<0.0000030	<0.0000030	<0.0000030
N-Nitrosopiperidine	<0.0000020	<0.0000020	<0.0000020

Phenolic Endocrine Disruptors (EDCs)

Bisphenol A	<0.0001	<0.0001	<0.0001
Nonylphenol diethoxylate, isomer mix (2006)	<0.0010	<0.0010	<0.0010
Nonylphenol monoethoxylate, isomer mix (2006)	<0.010	<0.010	<0.010
Nonylphenol, isomer mix	<0.0005	<0.0005	<0.0005
4-n-Octylphenol	<0.0005	<0.0005	<0.0005
4-tert-Octylphenol	<0.0005	<0.0005	<0.0005
Pentachlorophenol	<0.0001	<0.0001	<0.0001
Phenylphenol	<0.0001	<0.0001	<0.0001
Tetrabromobisphenol A	<0.0001	<0.0001	<0.0001
2, 4, 6-Trichlorophenol	<0.0001	<0.0001	<0.0001

Pharmaceuticals & Personal Care Products

Acetaminophen	<0.000005	<0.000005	<0.000005
Amoxicillin (2008)	<0.00005	<0.00005	<0.00005
Antipyrine	<0.000001	<0.000001	<0.000001
Aspirin (2008)	<0.00005	<0.00005	<0.00005
Azithromycin	<0.000001	<0.000001	<0.000001
Bacitracin	<0.0005	<0.0005	<0.0005
Bezafibrate	<0.0000005	<0.0000005	<0.0000005
Caffeine	<0.00005	<0.00005	<0.00005
Carbadox	<0.00005	<0.00005	<0.00005
Carbamazepine	<0.000001	<0.000001	<0.000001
Chloramphenicol	<0.000005	<0.000005	<0.000005
Chlorotetracycline	<0.00005	<0.00005	<0.00005
Ciprofloxacin	<0.00005	<0.00005	<0.00005
Clofibric acid	<0.0000005	<0.0000005	<0.0000005
Cotinine	0.000002	0.000001	0.000002
1, 7-Dimethylxanthine (2006)	<0.00000050	<0.00000050	<0.00000050
DEET	<0.000005	<0.000005	<0.000005
Diclofenac	<0.0000005	<0.0000005	<0.0000005
Dilantin	<0.00005	<0.00005	<0.00005
Diltiazem	<0.000001	<0.000001	<0.000001
Doxycycline	<0.00005	<0.00005	<0.00005

Enrofloxacin	<0.0005	<0.0005	<0.0005
Erythromycin	<0.000001	<0.000001	<0.000001
Fluoxetine (Prozac)	<0.000001	<0.000001	<0.000001
Gemfibrozil	0.0000014	0.000008000	0.0000011
Ibuprofen	<0.00005	<0.00005	<0.00005
Lasalocid	<0.000001	<0.000001	<0.000001
Levothyroxine (Synthroid)	<0.00005	<0.00005	<0.00005
Lincomycin	<0.0000001	<0.0000001	<0.0000001
Monensin	<0.000001	<0.000001	<0.000001
Naproxen	<0.000002	<0.000002	<0.000002
Narasin	<0.0000001	<0.0000001	<0.0000001
Nicotine	0.000005	<0.000005	<0.000005
Norfloxacin	<0.0005	<0.0005	<0.0005
Oleandomycin	<0.000001	<0.000001	<0.000001
Oxytetracycline	<0.0005	<0.0005	<0.0005
Paraxanthine	<0.000005	<0.000005	<0.000005
Penicillin G	<0.000002	<0.000002	<0.000002
Penicillin V	<0.000002	<0.000002	<0.000002
Prednisone	<0.000005	<0.000005	<0.000005
Roxithromycin	<0.000001	<0.000001	<0.000001
Salinomycin	<0.000001	<0.000001	<0.000001
Simvastatin	<0.000001	<0.000001	<0.000001
Sulfachloropyridazine	<0.000005	<0.000005	<0.000005
Sulfadiazine	<0.000005	<0.000005	<0.000005
Sulfadimethoxine	<0.000001	<0.000001	<0.000001
Sulfamerazine	<0.000005	<0.000005	<0.000005
Sulfamethazine	<0.000001	<0.000001	<0.000001
Sulfamethizole	<0.000005	<0.000005	<0.000005
Sulfamethoxazole	<0.000005	<0.000005	<0.000005
Sulthiazole	<0.000005	<0.000005	<0.000005
Theobromine	<0.00005	<0.00005	<0.00005
Theophylline	<0.000005	<0.000005	<0.000005
Triclosan	<0.000005	<0.000005	<0.000005
Trimethoprim	<0.000001	<0.000001	<0.000001
Tylosin	<0.000001	<0.000001	<0.000001
Virginiamycin M1	<0.000001	<0.000001	<0.000001

UCMR-2 (2008)

Acetochlor	<0.0020	<0.0020	<0.0020
Alachlor	<0.0020	<0.0020	<0.0020
Metolachlor	<0.0010	<0.0010	<0.0010
Acetochlor ESA	<0.0010	<0.0010	<0.0010
Acetochlor OA	<0.0020	<0.0020	<0.0020
Alachlor ESA	<0.0010	<0.0010	<0.0010
Alachlor OA	<0.0010	<0.0010	<0.0010
Metolachlor ESA	<0.0010	<0.0010	<0.0010
Metolachlor OA	<0.0020	<0.0020	<0.0020
Dimethoate	<0.0007	<0.0007	<0.0007
2,2',4,4',5,5'-Hexabromobiphenyl (HBB)	<0.0007	<0.0007	<0.0007
2,2',4,4',5,5'-Hexabromobiphenyl ether (BDE-153)	<0.0008	<0.0008	<0.0008
2,2',4,4',5-Pentabromodiphenyl ether (BDE-99)	<0.0009	<0.0009	<0.0009
2,2',4,4',6-Pentabromodiphenyl ether (BDE-100)	<0.0005	<0.0005	<0.0005
Terbufos-sulfone	<0.0004	<0.0004	<0.0004
2,2',4,4'-Tetrabromodiphenyl ether (BDE-47)	<0.0003	<0.0003	<0.0003
1,3-Dinitrobenzene	<0.0008	<0.0008	<0.0008

RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)	<0.0010	<0.0010	<0.0010
TNT (2,4,6-Trinitrotoluene)	<0.0008	<0.0008	<0.0008

D = Sample collected in distribution system NR = Not Regulated R = Not Regulated in raw water, only finished water

IFU = Inclusion forming unit

**Cryptosporidium parvum* was detected in 0 of 50 tests.

***Giardia lamblia* was detected in 2 of 50 tests.

***PCB's are summation of Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260. None were detected.

****The list of Flame Retardants and Selected Pesticides is tested using USEPA Method 527. This chemicals are included in the Unregulated Contaminant Monitoring Rule-2.

Note for Copper and Lead: There is little to no detectable lead in Lake Michigan water, the source of Milwaukee's supply.

The major sources of copper and lead in drinking water in Milwaukee are service lines, building plumbing, and fixtures.

From these sources, some homes in the community have lead levels above the EPA action level of 0.015 mg/L.

Milwaukee Water Works has installed and is operating treatment facilities to reduce lead in drinking water.

Revised: February 4, 2010.

For more information, please call the Water Quality section at the Milwaukee Water Works, (414) 286-2585.