

PARAMETERS	HEALTH CANADA RECOMMENDATIONS (2008)	QUEBEC REGULATION DRINKING WATER QUALITY (Q-2,r.40)	MONTREAL'S DRINKING WATER CONCENTRATION		
			MIN.	AVE.	MAX
PHYSICAL PROPERTIES					
Specific Conductivity (µS/cm) **	-	-	257	302	356
Color (T.C.U.) **	≤ 15 ¹	-	0	2	5
Agressivity index pH+log(alk*hard.) **	-	-	11,6	12,0	12,4
Ryznar index (2pHs-pH) **	-	-	7,9	8,7	9,4
Langelier's saturation index (pH-pHs) **	-	-	-0,73	-0,40	0,26
pH	6,5-8,5	6,5-8,5	6,5	7,6	8,0
Solids (mg/L) **	-	-	132	142	150
Total solids(mg/L) **	≤ 500 ¹	-	161	175	188
Temperature (°C) **	-	-	0	11	25
Turbidity (N.T.U.)	≤ 1 ⁵	≤ 5 / ≤ 1 ²	0,14	0,29	0,52
BIOLOGICAL CHARACTERISTICS					
			ANNUAL AVERAGE		
Total coliforms (C.F.U./100mL)	> 90 % ABS ⁴	> 90 % ABS ⁴	99.8 % ABS ⁴		
E.coli (C.F.U./100mL)	ABS ⁴	< 1 or ABS ⁴	100 % ABS ⁴		
HPC (C.F.U./mL)	-	-	< 0.90 (geometric mean)		

INORGANIC AND ORGANIC CHEMICAL CHARACTERISTICS (mg/L)

			MIN	AVE.	MAX
Antimony	≤ 0,006	≤ 0,006	0,00013	0,00013	0,00013
Alkalinity (eq.CaCO ₃) **	-	-	77	86	93
Aluminum (Al)	≤ 0,1	-	0,00256	0,00825	0,01914
Silver (Ag)	-	-	<0.00003	0.00007	0,00077
Arsenic (As)	≤ 0,01	≤ 0,010	0,00079	0,00084	0,00089
Barium (Ba)	≤ 1	≤ 1,0	0,02271	0,02288	0,02304
Bore (B)	≤ 5	≤ 5,0	0,05	0,05	0,05
Bromated (BrO ₃)*	≤ 0,01	≤ 0,010	<0,1	<0,1	<0,1
Cadmium (Cd)	≤ 0,005	≤ 0,005	<0.00003	<0.00003	<0.00003
Calcium (Ca)	-	-	27,86	29,97	32,14
Total Organic Carbon (TOC) **	-	-	1,35	2,30	5,04
Chlorides (Cl) **	≤ 250 ¹	-	23,10	25,32	28,36
Chromium (Cr)	≤ 0,05	≤ 0,050	0,0001	0,0001	0,0001
Cobalt (Co)	-	-	<0.00002	0,00002	0,00004
Copper (Cu)	≤ 1,0 ¹	≤ 1,0	0,0716	0,1005	0,1293
Cyanides (CN)	≤ 0,2	≤ 0,20	<0.004	<0,004	<0,004
Total Hardness (eq.CaCO ₃) **	-	-	101	115	126
Iron (Fe)	≤ 0,3 ¹	-	0,01	0,02	0,04
Fluorides (F)	≤ 1,5	≤ 1,50	0,11	0,11	0,11
Magnesium (Mg)	-	-	6,79	7,59	8,25
Manganese (Mn)	≤ 0,05 ¹	-	0,00012	0,00027	0,00050
Mercury (Hg)	≤ 0,001	≤ 0,001	<0.00003	<0.00003	<0.00003
Nickel (Ni)	-	-	0,00008	0,00043	0,00065
Nitrites + nitrates (N)	≤ 45	≤ 10,0	0,161	0,286	0,340
Phosphates (total) (P) **	-	-	0,005	0,030	0,100
Lead (Pb)	≤ 0,01	≤ 0,010	0,00078	0,00083	0,00087
Potassium (K)	-	-	1,29	1,47	1,58
Selenium (Se)	≤ 0,01	≤ 0,010	<0,0002	<0,0002	<0,0002
Silica (SiO ₂) **	-	-	0,50	0,94	1,20
Sodium (Na)	≤ 200 ¹	-	10,57	12,57	14,51
Sulfates (SO ₄) **	≤ 500 ¹	-	21,25	24,41	26,21
Uranium (U)	≤ 0,02	≤ 0,020	0,00033	0,00033	0,00033
Zinc (Zn)	≤ 5,0 ¹	-	<0.00017	0,00097	0,00187

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			MAXIMUM DETECTED
ORGANIC COMPOUNDS			
CARBAMATES (µg/L)			
Bendiocarb*	≤ 40	≤ 40	N.D.
Carbaryl*	≤ 90	≤ 90	N.D.
Carbofuran*	≤ 90	≤ 90	N.D.
VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)			
1,1,1,2-Tétrachloroethane	-	-	N.D.
1,1,1-Trichloroethane	-	-	N.D.
1,1,2,2-Tétrachloroethane	-	-	N.D.
1,1,2-Trichloroethane	-	-	N.D.
1,1-Dichloroethane	-	-	N.D.
1,1-Dichloroethylene	≤ 14	≤ 14	N.D.
1,1-Dichloropropene	-	-	N.D.
1,2,3-Trichlorobenzene	-	-	N.D.
1,2,3-Trichloropropane	-	-	N.D.
1,2,4-Trichlorobenzene	-	-	N.D.
1,2,4-Triméthylbenzene	-	-	N.D.
1,2-Dibromo-3-chloropropane	-	-	N.D.
1,2-Dibromoethane	-	-	N.D.
1,2-Dichlorobenzene	≤ 200	≤ 200	N.D.
1,2-Dichloroethane	≤ 5	≤ 5	N.D.
1,2-Dichloropropane	-	-	N.D.
1,3,5-Triméthylbenzene	-	-	N.D.
1,3-Dichlorobenzene	-	-	N.D.
1,3-Dichloropropane	-	-	N.D.
1,4-Dichlorobenzene	≤ 5	≤ 5	N.D.
1-Chlorobutane	-	-	N.D.
1-Propene,3-chloro	-	-	N.D.
2,2-Dichloropropane	-	-	N.D.
2-Butanone	-	-	N.D.
2-Chlorotoluene	-	-	N.D.
2-Nitropropane	-	-	N.D.
4-Chlorotoluene	-	-	N.D.
4-Isopropyltoluene	-	-	N.D.
Acrylonitrile	-	-	N.D.
Benzene	≤ 5	≤ 5	N.D.
Bromobenzene	-	-	N.D.
Bromochloromethane	-	-	N.D.
Bromoform	-	See note 3	0,3
Bromodichloromethane	-	See note 3	15,8
Bromomethane	-	-	N.D.
Chloroacetonitrile	-	-	N.D.
Chlorobenzene	≤ 80	≤ 80	N.D.
Chlorodibromomethane	-	See note 3	5,8
Chloroethane	-	-	N.D.
Chloroform	-	See note 3	83,2
Chloromethane	-	-	N.D.
Vinyl chloride	≤ 2	≤ 2	N.D.

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cis-1,2-Dichloroethylene	-	-	N.D.
cis-1,3-Dichloropropene	-	-	N.D.
Dibromomethane	-	-	N.D.
Dichlorodifluoromethane	-	-	N.D.
Dichloromethane	≤ 50	≤ 50	1,2
Diethylether	-	-	N.D.
Carbon disulfide	-	-	N.D.
Ethylbenzene	≤ 2,4 ¹	-	N.D.
Hexachlorobutadiene	-	-	N.D.
Hexachloroethane	-	-	N.D.
Isopropylbenzene	-	-	N.D.
Methacrylonitrile	-	-	N.D.
Methyl acrylate	-	-	N.D.
Methyl methacrylate	-	-	N.D.
MTBE(methyl tert-butyl ether)	-	-	N.D.
m-Xylene + p-Xylene + o-Xylene	≤ 300 ¹	-	N.D.
Naphthalene	-	-	N.D.
n-Butylbenzene	-	-	N.D.
n-Propylbenzene	-	-	N.D.
Propionitrile	-	-	N.D.
sec-Butylbenzene	-	-	N.D.
Styrene	-	-	N.D.
tert-Butylbenzene	-	-	N.D.
Tetrachloroethylene	≤ 30	≤ 30	N.D.
Carbon tetrachloride	5	≤ 5	N.D.
Tetrahydrofurane	-	-	N.D.
Toluene	≤ 24 ¹	-	N.D.
trans-1,2-Dichloroethylene	-	-	N.D.
trans-1,3-Dichloropropene	-	-	N.D.
Trans-1,4-dichloro-2-butene	-	-	N.D.
Trichloroethylene	≤ 5	≤ 50	N.D.
Trichlorofluoromethane	-	-	N.D.
Trihalomethanes (THM) (total)	-	See note 3	99,0 ⁶
Trihalomethanes (THM) (total) – Annual mean concentration	≤ 100	≤ 80 ³	50,7
PHENOLIC COMPOUNDS (µg/L)			
2,3,4,6-Tetrachlorophenol *	≤ 100	≤ 100	N.D.
2,4 -Dichlorophenol *	≤ 900	≤ 900	N.D.
2,4,6-Trichlorophenol *	≤ 5	≤ 5	0,14
Pentachlorophenol *	≤ 60	≤ 60	N.D.
GLYPHOSATE (µg/L)			
Glyphosate*	≤ 280	≤ 280	N.D.
PAH (µg/L)			
Benzo(a)pyrene *	≤ 0,01	≤ 0,01	N.D.
TRIAZINES HERBICIDES (µg/L)			
Atrazine and metabolites*	≤ 5	≤ 5	N.D.
Cyanazine*	≤ 10	≤ 10	N.D.
Metribuzine*	≤ 80	≤ 80	N.D.
Simazine*	≤ 10	≤ 10	N.D.

Montréal  Division de l'expertise technique	MUNICIPAL DRINKING WATER PRODUCED BY ATWATER AND CHARLES-J DES BAILLETS DRINKING WATER TREATMENT PLANTS	2013
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			MAXIMUM DETECTED
CHLOROPHENOXY ACID AND TRICHLOROACETATE PESTICIDES (µg/L)			
2,4-D*	≤ 100	≤ 100	N.D.
Dicamba*	≤ 120	≤ 120	N.D.
Dinoseb*	≤ 10	≤ 10	N.D.
Picloram*	≤ 190	≤ 190	N.D.
ORGANOCHLORINE PESTICIDES (µg/L)			
Metolachlor*	≤ 50	≤ 50	N.D.
Methoxychlor *	≤ 900	≤ 900	N.D.
Trifluralin*	≤ 45	≤ 45	N.D.
ORGANOPHOSPHORUS PESTICIDES (µg/L)			
Azinphos-methyl*	≤ 20	≤ 20	N.D.
Chlorpyrifos*	≤ 90	≤ 90	N.D.
Diazinon *	≤ 20	≤ 20	N.D.
Dimethoate*	≤ 20	≤ 20	N.D.
Diuron*	≤ 150	≤ 150	N.D.
Malathion*	≤ 190	≤ 190	N.D.
Parathion *	≤ 50	≤ 50	N.D.
Phorate*	≤ 2	≤ 2	N.D.
Terbufos*	≤ 1	≤ 1	N.D.
OTHERS (µg/L)			
Haloacetic acids*- Annual mean concentration	-	≤ 60	42,8
Nitrilotriacetic acid	≤ 400	≤ 400	N.D.
Bromoxynil*	≤ 5	≤ 5	N.D.
Methyl-Diclofop*	≤ 9	≤ 9	N.D.
Diquat *	≤ 70	≤ 70	N.D.
Paraquat *	≤ 10	≤ 10	N.D.

- * : Analyzed by an outside accredited laboratory
 ** : At the exit of water treatment plant
 N.D. : Not detected, lower than the detection limit method
 D. : Detected, but cannot determine quantity

Notes :

- 1 Esthetical or organoleptic reasons
- 2 Turbidity must be equal or under 5 NTU and must not overpass 1,0 NTU for more than 5 % of total measures taken within 30 days.
- 3 The annual mean concentration of total THM (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) must not exceed 80 µg/L (samples taken at the end of drinking water distribution network)
- 4 ABS : absence
- 5 Health reasons objectives
- 6 Maximum obtained for a sampling site

