

PARAMETERS	HEALTH CANADA RECOMMENDATIONS (2017)	QUEBEC REGULATION DRINKING WATER QUALITY (Q-2,r.40)	DRINKING WATER		
			CONCENTRATION		
			MIN.	AVE.	MAX.
<b>Physical Properties</b>					
pH (units)	7.0 – 10.5 <sup>5</sup>	6.5 - 8.5	7,10	7,13	7,20
Turbidity (N.T.U.)	≤1.0	≤5	0,09	0,13	0,20
<b>Biological Characteristics</b>					
			<b>ANNUAL AVERAGE</b>		
Total coliforms <sup>4</sup> (PRE-ABS /100ml)	>90% ABS <sup>9</sup>	>90% ABS <sup>9</sup>	99,8 % ABS <sup>10</sup>		
E. coli <sup>4</sup> (PRE-ABS /100ml)	ABS	<1 or 100 % ABS	100 % ABS		
<b>Inorganic and Organic Chemical Characteristics (mg/L)</b>					
Antimony (Sb)	≤0.006	≤0.006	0,00010	0,00010	0,00010
Aluminum (Al) **	<0.1	--	0,00971	0,0171	0,0452
Silver (Ag) **	--	--	<0.00003	<0.00003	0,00004
Arsenic (As)	≤0.010	≤0.010	0,00033	0,00033	0,00033
Barium (Ba)	≤1.0	≤1.0	0,0159	0,0159	0,0159
Bore (B)	≤5	≤5.0	<0,02	<0,02	<0,02
Bromated (BrO <sub>3</sub> ) *	≤0.01	≤0.010	<0,0001	<0,0011	<0,0025
Cadmium (Cd)	≤0.005	≤0.005	0,00003	0,00003	0,00003
Calcium (Ca) **	--	--	10,10	16,46	27,70
Chromium (Cr)	≤0.05	≤0.050	0,00010	0,00010	0,00010
Cobalt (Co) **	--	--	0,00002	0,00003	0,00004
Copper (Cu) <sup>7</sup>	≤1.0 <sup>1</sup>	≤1.0	0,0108	0,0108	0,0108
Cyanides (CN)	≤0.2	≤0.20	<0,004	<0,004	<0,004
Iron (Fe) **	≤0.3 <sup>1</sup>	--	<0.00432	<0.00432	0,0100
Fluorides (F)	≤1.5	≤1.50	<0,02	<0,02	<0,02
Magnesium (Mg) **	--	--	2,18	4,05	7,49
Manganese (Mn) **	≤0.05 <sup>1</sup>	--	0,0026	0,00481	0,00718
Mercury (Hg)	≤0.001	≤0.001	<0,00003	<0,00003	<0,00003
Nickel (Ni) **	--	--	0,00035	0,00039	0,00043
Nitrites (NO <sub>2</sub> -N) + nitrates (NO <sub>3</sub> -N)	≤1 + ≤10	≤10.0	0,15	0,29	0,47
Lead (Pb) <sup>7</sup>	≤0.010	≤0.010	0,00066	0,00066	0,00066
Potassium (K) **	--	--	0,690	1,01	1,47
Selenium (Se)	≤0.05	≤0.010	<0,00021	<0,00021	<0,00021
Sodium (Na) **	≤200 <sup>1</sup>	--	11,30	14,03	21,60
Uranium (U)	≤0.02	≤0.020	0,00001	0,00001	0,00001
Zinc (Zn) **	≤5.0 <sup>1</sup>	--	0,00067	0,00155	0,00268

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					MAXIMUM DETECTED (µg/L)
<b>Carbamates</b>					
Bendiocarb *	-		27	0.1 à 0.2	N.D.
Carbaryl *	90		70	0.1 à 0.2	N.D.
Carbofuran *	90		70	0.1 à 0.2	N.D.
<b>Volatile Organic Compounds (VOC)</b>					
1,1,1,2-Tétrachloroethane	-		-	0.06 à 0.08	N.D.
1,1,1-Trichloroethane	-		-	0.05 à 0.06	N.D.
1,1,2,2-Tétrachloroethane	-		-	0.06	N.D.
1,1,2-Trichloroethane	-		-	0.05 à 0.06	N.D.
1,1-Dichloroethane	-		-	0.06	N.D.
1,1-Dichloroethylene	14		10	0.06 à 0.07	N.D.
1,1-Dichloropropene	-		-	0.06	N.D.
1,2,3-Trichlorobenzene	-		-	0.04 à 0.06	N.D.
1,2,3-Trichloropropane	-		-	0.06 à 0.09	N.D.
1,2,4-Trichlorobenzene	-		-	0.04 à 0.06	N.D.
1,2,4-Triméthylbenzene	-		-	0.04 à 0.06	N.D.
1,2-Dibromo-3-chloropropane	-		-	0.06 à 0.24	N.D.
1,2-Dibromoethane	-		-	0.04 à 0.06	N.D.
1,2-Dichlorobenzene	200	3 <sup>1</sup>	150	0.06 à 0.07	N.D.
1,2-Dichloroethane	5		5	0.05 à 0.06	N.D.
1,2-Dichloropropane	-		-	0.06	N.D.
1,3,5-Triméthylbenzene	-		-	0.02 à 0.06	N.D.
1,3-Dichlorobenzene	-		-	0.06	N.D.
1,3-Dichloropropane	-		-	0.02 à 0.06	N.D.
1,4-Dichlorobenzene	5	1 <sup>1</sup>	5	0.05 à 0.06	N.D.
1-Chlorobutane	-		-	0.08	N.D.
1-Propene,3-chloro	-		-	0.2	N.D.
2,2-Dichloropropane	-		-	0.06	N.D.
2-Butanone	-		-	0.22	N.D.
2-Chlorotoluene	-		-	0.06	N.D.
2-Nitropropane	-		-	0.31	N.D.
4-Chlorotoluene	-		-	0.04 à 0.06	N.D.
4-Isopropyltoluene	-		-	0.03 à 0.06	N.D.
Acrylonitrile	-		-	0.13	N.D.
Benzene	5		0.5	0.05 à 0.06	N.D.
Bromobenzene	-		-	0.05 à 0.06	N.D.
Bromochloromethane	-		-	0.06 à 0.07	N.D.
Bromoform	-		See Note 3	0.06 à 0.09	N.D.
Bromodichloromethane	-		See Note 3	0.04 à 0.06	10.20
Bromomethane	-		-	0.06 à 0.15	N.D.
Chloroacetonitrile	-		-	1.38	N.D.
Chlorobenzene	80	30 <sup>1</sup>	60	0.05 à 0.06	N.D.

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<b>Volatile Organic Compounds (VOC)</b>					
Chlorodibromomethane	-		See Note 3	0.04 à 0.06	0.80
Chloroethane	-		-	0.06 à 0.19	N.D.
Chloroform	-		See Note 3	0.05 à 0.06	70.05
Chloromethane	-		-	0.06 à 0.08	N.D.
Vinyl chloride	2		2	0.06 0.07	N.D.
cis-1,2-Dichloroethylene	-		-	0.06 à 0.07	N.D.
cis-1,3-Dichloropropene	-		-	0.06 à 0.11	N.D.
Dibromomethane	-		-	0.06	N.D.
Dichlorodifluoromethane	-		-	0.06 à 0.08	N.D.
Dichloromethane	50		50	0.06 à 0.09	N.D.
Diethylether	-		-	0.06 à 0.07	N.D.
Carbon disulfide	-		-	0.08	N.D.
Ethylbenzene	140	1.6 <sup>1</sup>	-	0.03 à 0.06	N.D.
Hexachlorobutadiene	-		-	0.06 à 0.08	N.D.
Hexachloroethane	-		-	0.14	N.D.
Isopropylbenzene	-		-	0.03 à 0.06	N.D.
Methacrylonitrile	-		-	0.12	N.D.
Methyl acrylate	-		-	0.1	N.D.
Methyl methacrylate	-		-	0.19	N.D.
MTBE(methyl tert-butyl ether)	-	15 <sup>1</sup>	-	0.05	N.D.
m-Xylene + p-Xylene + o-Xylene	90	20 <sup>1</sup>	-	0.06 à 0.09	N.D.
Naphthalene	-		-	0.06 à 0.11	N.D.
n-Butylbenzene	-		-	0.04 à 0.06	N.D.
n-Propylbenzene	-		-	0.04 à 0.06	N.D.
Propionitrile	-		-	0.27	N.D.
sec-Butylbenzene	-		-	0.06 à 0.1	N.D.
Styrene	-		-	0.06 à 0.07	N.D.
tert-Butylbenzene	-		-	0.06 à 0.1	N.D.
Tetrachloroethylene	10		25	0.05 à 0.06	N.D.
Carbon tetrachloride	2		5	0.06 à 0.07	N.D.
Tetrahydrofurane	-		-	0.46	N.D.
Toluene	60	24 <sup>1</sup>	-	0.03 à 0.06	0.11
trans-1,2-Dichloroethylene	-		-	0.06	N.D.
trans-1,3-Dichloropropene	-		-	0.06 à 0.1	N.D.
Trans-1,4-dichloro-2-butene	-		-	0.14	N.D.
Trichloroethylene	5		5	0.06	N.D.
Trichlorofluoromethane	-		-	0.06 à 0.12	N.D.
Trihalomethanes (THM) (total) <sup>6</sup>	-		See Note 3	0.22 à 0.24	81.00
Trihalomethanes (THM) (total) – Annual mean concentration	100		80 <sup>3</sup>	0.22 à 0.24	67.83

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					MAXIMUM DETECTED (µg/L)
<b>Phenolic Compounds</b>					
2,3,4,6-Tetrachlorophenol *	100	1 <sup>1</sup>	70	0.4 à 1	N.D.
2,4 -Dichlorophenol *	900	0.3 <sup>1</sup>	700	0.3 à 1	N.D.
2,4,6-Trichlorophenol *	5	2 <sup>1</sup>	5	0.4 à 1	N.D.
Pentachlorophenol *	60	30 <sup>1</sup>	42	0.4 à 1	N.D.
<b>Glyphosate</b>					
Glyphosate *	280		210	10 à 15	N.D.
<b>Polycyclic Aromatic Hydrocarbons (PAH)</b>					
Benzo(a)pyrene *	0.04		0.01	0.003 à 0.01	N.D.
<b>Triazine Herbicides</b>					
Atrazine and metabolites *	5		3.5	0.1 à 0.3	N.D.
Cyanazine *	-		9	0.1 à 0.2	N.D.
Metribuzine *	80		60	0.1 à 0.2	N.D.
Simazine *	10		9	0.06 à 0.2	N.D.
<b>Chlorophenoxy Acid and Trichloroacetate Pesticides</b>					
2,4-D *	100		70	0.03 à 0.1	0.04
Dicamba *	120		85	0.1 à 0.6	N.D.
Dinoseb *	-		7	0.1 à .4	N.D.
Picloram *	190		140	0.06 à 0.1	N.D.
<b>Organochlorine Pesticides</b>					
Metolachlor *	50		35	0.07 à 0.2	N.D.
Methoxychlor *	-		700	0.03 à 0.1	N.D.
Trifluralin *	45		35	0.2	N.D.
<b>Organophosphorus Pesticides</b>					
Azinphos-methyl *	20		17	0.1 à 0.3	N.D.
Chlorpyrifos *	90		70	0.1 à 0.2	N.D.
Diazinon *	20		14	0.07 à 0.2	N.D.
Dimethoate *	20		14	0.1 à 0.2	N.D.
Diuron *	150		110	0.1 à 0.3	N.D.
Malathion *	190		140	0.08 à 0.2	N.D.
Parathion *	-		35	0.2	N.D.
Phorate *	2		1.4	0.1 à 0.2	N.D.
Terbufos *	1		0.5	0.2	N.D.
<b>Others</b>					
Bromoxynil *	5		3.5	0.1 à 0.4	N.D.
Methyl-Diclofop *	9		7	0.1 à 0.2	N.D.
Diquat *	70		50	1 à 10	N.D.
Paraquat *	10		7	0.5 à 0.6	N.D.
Haloacetic Acids *	80		60	3.0	34.60

- \*: Analyzed by an outside accredited laboratory.
- \*\* : At the exit of water treatment plant.
- RDL: Reported Detection Limit.
- 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 (nephelometric turbidity units)
- 3: The annual mean concentration of total THM (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) calculated over four consecutive quarters must not exceed 80 µg/L (samples taken at the end of drinking water distribution network).
- 4: ABS = Absence PRE = Présence
- 5: Health reasons objectives.
- 6: Maximum obtained for a sampling site.
- 7: Lead and copper level at the center of water distribution network. When water samples are taken from old pipes (before 1970) results are shown below.

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			MIN.	AVE.	MAX.
			<b>Copper and Lead (mg/L)</b>		
Copper (Cu)	≤1.0 <sup>1</sup>	≤1.0	0,01140	0,02325	0,04210
Lead (Pb)	≤0.010	≤0.010	0,00005	0,00111	0,00592

- 8 : The reported detection limit has change during the years according the method.
- 9 : When 21 samples or more are taken over a period of 30 consecutive days
- 10 : There is no requirement for annual average. It is used only as a reference. For all year long, monthly average have been respected