


Montréal  Division de l'expertise technique	MUNICIPAL DRINKING WATER PRODUCED BY ATWATER AND CHARLES-J DES BAILLETS DRINKING WATER TREATMENT PLANTS	2009
---	---	-------------

PARAMETERS	HEALTH CANADA RECOMMENDATIONS	QUÉBEC REGULATION DRINKING WATER QUALITY (Q-2,r.18.1.1)	MONTRÉAL'S DRINKING WATER CONCENTRATION		
			MIN.	MOY.	MAX
			PHYSICAL PROPERTIES		
Specific Conductivity (µS/cm) **	-	-	264	293	310
Color (T.C.U.) **	≤ 15 ¹	-	1	2	5
Agressivity index pH+log(alk*dt) **	-	-	11,5	11,7	12,1
Ryznar index (2pHs-pH) **	-	-	8.1	9	10.1
Langelier's saturation index (pH-pHs) **	-	-	-1.58	-0.66	-0.01
pH	6,5-8,5	6,5-8,5	7,20	7,44	7,80
Solids (mg/L) **	-	-	132	140	152
Total solids(mg/L) **	≤ 500 ¹	-	161	172	182
Temperature (°C) **	-	-	0	10,8	25,8
Turbidity (N.T.U.)	≤ 1 ⁵	≤ 5 / ≤ 1 ²	0,08	0,19	0,35
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)	-	-	< 1,02 (geometric mean)		
INORGANIC AND ORGANIC CHEMICAL CHARACTERISTICS (mg/L)					
			MIN.	MOY.	MAX
Antimony	≤ 0,006	≤ 0,006	0,00014	0,00014	0,00014
Alkalinity (eq.CaCO ₃) **	-	-	79	84	87
Aluminum (Al)	≤ 0,1	-	0,00476	0,00507	0,00537
Silver (Ag)	-	-	< 0,00004	< 0,00004	< 0,00004
Arsenic (As)	≤ 0,01	≤ 0,025	0,00079	0,00084	0,00089
Barium (Ba)	≤ 1	≤ 1,0	0,02097	0,02114	0,02131
Bore (B)	≤ 5	≤ 5	0,04	0,05	0,06
Bromated (BrO ₃)*	≤ 0,01	≤ 0,010	0,0026	0,0026	0,0026
Cadmium (Cd)	≤ 0,005	≤ 0,005	< 0,00003	< 0,00003	< 0,00003
Calcium (Ca)	-	-	30	30	30
Total Organic Carbon (TOC) **	-	-	1,67	2,28	3,24
Chlorides (Cl) **	≤ 250 ¹	-	21,3	23,4	25
Chromium (Cr)	≤ 0,05	≤ 0,05	0,0014	0,0015	0,0015
Cobalt (Co)	-	-	< 0,00003	< 0,00003	< 0,00003
Copper (Cu)	≤ 1,0 ¹	≤ 1,0	0,0895	0,1095	0,1295
Cyanides (CN)	≤ 0,2	≤ 0,2	<0,004	<0,004	<0,004
Total Hardness (eq.CaCO ₃) **	-	-	113	118	122
Iron (Fe)	≤ 0,3 ¹	-	<0,005	0,007	0,010
Fluorides (F)	≤ 1,5	≤ 1,5	0,13	0,13	0,13
Magnesium (Mg)	-	-	7,94	7,97	7,99
Manganese (Mn)	≤ 0,05 ¹	-	0,00023	0,00038	0,00053
Mercury (Hg)	≤ 0,001	≤ 0,001	<0,00002	<0,00002	<0,00002
Nickel (Ni)	-	-	0,00060	0,00067	0,00074
Nitrites + nitrates (N)	≤ 45	≤ 10	0,28	0,34	0,41
Phosphates (total) (P) **	-	-	0,002	0,003	0,004
Lead (Pb)	≤ 0,01	≤ 0,010	0,00078	0,00103	0,00127
Potassium (K)	-	-	1,36	1,38	1,40
Selenium (Se)	≤ 0,01	≤ 0,010	< 0,0004	<0,0004	<0,0004
Silica (SiO ₂) **	-	-	0,60	0,85	1,51
Sodium (Na)	≤ 200 ¹	-	12,44	12,52	12,59
Sulfates (SO ₄) **	≤ 500 ¹	-	22	24	25
Uranium (U)	≤ 0,02	≤ 0,020	< 0,001	< 0,001	< 0,001
Zinc (Zn)	≤ 5,0 ¹	-	0,00188	0,00800	0,01411

Montréal  Laboratory division Environment and infrastructures services	MUNICIPAL DRINKING WATER PRODUCED BY ATWATER ET CHARLES-J.-DES-BAILLETS WATER PLANTS	2009
---	--	-------------

PARAMETERS	HEALTH CANADA RECOMMENDATIONS	QUÉBEC REGULATION DRINKING WATER QUALITY (Q-2,r.18.1.1)	MONTRÉAL'S DRINKING WATER	
			MAXIMUM DETECTED	DETECTION LIMIT
ORGANIC COMPOUNDS				
CARBAMATES (µg/L)				
Bendiocarb*	≤ 40	≤ 40	N.D.	0,2
Carbaryl*	≤ 90	≤ 90	N.D.	0,2
Carbofuran*	≤ 90	≤ 90	N.D.	0,2
VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)				
1,1,1,2-Tétrachloroethane	-	-	N.D.	0,08
1,1,1-Trichloroethane	-	-	N.D.	0,05
1,1,2,2-Tétrachloroethane	-	-	N.D.	0,06
1,1,2-Trichloroethane	-	-	N.D.	0,05
1,1-Dichloroethane	-	-	N.D.	0,06
1,1-Dichloroethylene	≤ 14	≤ 14	N.D.	0,07
1,1-Dichloropropene	-	-	N.D.	0,06
1,2,3-Trichlorobenzene	-	-	N.D.	0,04
1,2,3-Trichloropropane	-	-	N.D.	0,09
1,2,4-Trichlorobenzene	-	-	N.D.	0,04
1,2,4-Triméthylbenzene	-	-	N.D.	0,04
1,2-Dibromo-3-chloropropane	-	-	N.D.	0,24
1,2-Dibromoethane	-	-	N.D.	0,04
1,2-Dichlorobenzene	≤ 200	≤ 200	N.D.	0,07
1,2-Dichloroethane	≤ 5	≤ 5	N.D.	0,05
1,2-Dichloropropane	-	-	N.D.	0,06
1,3,5-Triméthylbenzene	-	-	N.D.	0,02
1,3-Dichlorobenzene	-	-	N.D.	0,06
1,3-Dichloropropane	-	-	N.D.	0,02
1,4-Dichlorobenzene	≤ 5	≤ 5	N.D.	0,05
1-Chlorobutane	-	-	N.D.	0,08
1-Propene,3-chloro	-	-	N.D.	0,20
2,2-Dichloropropane	-	-	N.D.	0,06
2-Butanone	-	-	N.D.	0,22
2-Chlorotoluene	-	-	N.D.	0,06
2-Nitropropane	-	-	N.D.	0,31
4-Chlorotoluene	-	-	N.D.	0,04
4-Isopropyltoluene	-	-	N.D.	0,03
Acrylonitrile	-	-	N.D.	0,13
Benzene	≤ 5	≤ 5	N.D.	0,05
Bromobenzene	-	-	N.D.	0,05
Bromochloromethane	-	-	N.D.	0,07
Bromoform	-	See note 3	1,0	0,09
Bromodichloromethane	-	See note 3	11,8	0,04
Bromomethane	-	-	N.D.	0,15

PARAMETERS	HEALTH CANADA RECOMMENDATIONS	QUÉBEC REGULATION DRINKING WATER QUALITY (Q-2,r.18.1.1)	MONTRÉAL'S DRINKING WATER	
			MAXIMUM DETECTED	DETECTION LIMIT
Chloroacetonitrile	-	-	N.D.	1,38
Chlorobenzene	≤ 80	≤ 80	N.D.	0,05
Chlorodibromomethane	-	See note 3	6,7	0,04
Chloroethane	-	-	N.D.	0,19
Chloroform	-	See note 3	33,0	0,05
Chloromethane	-	-	N.D.	0,08
Vinyl chloride	≤ 2	≤ 2	N.D.	0,07
cis-1,2-Dichloroethylene	-	-	N.D.	0,07
cis-1,3-Dichloropropene	-	-	N.D.	0,11
Dibromomethane	-	-	N.D.	0,06
Dichlorodifluoromethane	-	-	N.D.	0,08
Dichloromethane	≤ 50	≤ 50	N.D.	0,09
Diethylether	-	-	N.D.	0,07
Carbon disulfide	-	-	N.D.	0,08
Ethylbenzene	≤ 2,4 ¹	-	N.D.	0,03
Hexachlorobutadiene	-	-	N.D.	0,08
Hexachloroethane	-	-	N.D.	0,14
Isopropylbenzene	-	-	N.D.	0,03
Methacrylonitrile	-	-	N.D.	0,12
Methyl acrylate	-	-	N.D.	0,10
Methyl methacrylate	-	-	N.D.	0,19
MTBE(methyl tert-butyl ether)	-	-	N.D.	0,05
m-Xylene + p-Xylene + o-Xylene	≤ 300 ¹	-	N.D.	0,03
Naphthalene	-	-	N.D.	0,11
n-Butylbenzene	-	-	N.D.	0,04
n-Propylbenzene	-	-	N.D.	0,04
Propionitrile	-	-	N.D.	0,27
sec-Butylbenzene	-	-	N.D.	0,10
Styrene	-	-	N.D.	0,07
tert-Butylbenzene	-	-	N.D.	0,10
Tetrachloroethylene	≤ 30	≤ 30	N.D.	0,05
Carbon tetrachloride	5	≤ 5	N.D.	0,07
Tetrahydrofuran	-	-	N.D.	0,46
Toluene	≤ 24 ¹	-	N.D.	0,03
trans-1,2-Dichloroethylene	-	-	N.D.	0,06
trans-1,3-Dichloropropene	-	-	N.D.	0,10
Trans-1,4-dichloro-2-butene	-	-	N.D.	0,14
Trichloroethylene	≤ 5	≤ 50	N.D.	0,06
Trichlorofluoromethane	-	-	N.D.	0,12
Trihalomethanes (THM) (total)	≤ 100	≤ 80 ³	46,5 ⁶	0,2
PHENOLIC COMPOUNDS (µg/L)				
2,3,4,6-Tetrachlorophenol *	≤ 100	≤ 100	N.D.	0,04
2,4 -Dichlorophenol *	≤ 900	≤ 900	N.D.	0,06
2,4,6-Trichlorophenol *	≤ 5	≤ 5	0,19	0,04
Pentachlorophenol *	≤ 60	≤ 60	N.D.	0,04
GLYPHOSATE AND AMPA (µg/L)				
Glyphosate*	≤ 280	≤ 280	N.D.	10
PAH (µg/L)				
Benzo (a) pyrene *	≤ 0,01	≤ 0,01	N.D.	0,003

Montréal  Laboratory division Environment and infrastructures services	MUNICIPAL DRINKING WATER PRODUCED BY ATWATER ET CHARLES-J.-DES-BAILLETS WATER PLANTS	2009
---	--	-------------

PARAMETERS	HEALTH CANADA RECOMMENDATIONS	QUÉBEC REGULATION DRINKING WATER QUALITY (Q-2,r.18.1.1)	MONTRÉAL'S DRINKING WATER	
			MAXIMUM DETECTED	DETECTION LIMIT
TRIAZINES HERBICIDES (µg/L)				
Atrazine and metabolites*	≤ 5	≤ 5	N.D.	0,3
Cyanazine*	≤ 10	≤ 10	N.D.	0,2
Metribuzine*	≤ 80	≤ 80	N.D.	0,2
Simazine*	≤ 10	≤ 10	N.D.	0,2
CHLOROPHOXY ACID AND TRICHLOROACETATE PESTICIDES (µg/L)				
2,4-D*	≤ 100	≤ 100	0,08	0,03
Dicamba*	≤ 120	≤ 120	N.D.	0,6
Dinoseb*	≤ 10	≤ 10	N.D.	0,4
Picloram*	≤ 190	≤ 190	N.D.	0,06
ORGANOCHLORINE PESTICIDES (µg/L)				
Metolachlor*	≤ 50	≤ 50	N.D.	0,2
Methoxychlor *	≤ 900	≤ 900	N.D.	0,03
Trifluralin*	≤ 45	≤ 45	N.D.	0,2
ORGANOPHOSPHORUS PESTICIDES (µg/L)				
Azinphos-methyl*	≤ 20	≤ 20	N.D.	0,3
Chlorpyrifos*	≤ 90	≤ 90	N.D.	0,2
Diazinon *	≤ 20	≤ 20	N.D.	0,2
Dimethoate*	≤ 20	≤ 20	N.D.	0,2
Diuron*	≤ 150	≤ 150	N.D.	0,3
Malathion*	≤ 190	≤ 190	N.D.	0,2
Parathion *	≤ 50	≤ 50	N.D.	0,2
Phorate*	≤ 2	≤ 2	N.D.	0,2
Terbufos*	≤ 1	≤ 1	N.D.	0,2
OTHERS (µg/L)				
Nitritotriacetic acid	≤ 400	≤ 400	N.D.	25
Bromoxynil*	≤ 5	≤ 5	N.D.	0,4
Methyl-Diclofop*	≤ 9	≤ 9	N.D.	0,2
Diquat *	≤ 70	≤ 70	N.D.	15
Paraquat *	≤ 10	≤ 10	N.D.	0,6

* : Analyzed by an outside accredited laboratory

** : At the exit of water treatment plant

N.D. : Not detected

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 0,5 NTU for more than 5 % of total measures taken within 30 days.
- 3 Total THM concentration (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