

ANALYTICAL PARAMETERS	SANITARY SEWER NETWORK							STORM SEWER NETWORK						
	Unit	Reported detection limit	Criteria ¹	Analytical results				Unit	Reported detection limit	Criteria ³	Analytical results			
			Biological treatment ²	2018	2019	2020	2021			Storm water	2018	2019	2020	2021
				August	October	November	October				October	December	November	October
Metals (and metalloids)														
Aluminium (total extractible)	mg/L	0,010	50	2,4	6,4	7,8	0,23	mg/L	0,010	3	0,16	0,370	0,190	0,64
Silver (total extractible)	mg/L	0,0010	1	<	<	0,0031	<	mg/L	0,0010	0,12	<	<	<	<
Arsenic (total extractible)	mg/L	0,0010	1	0,007	0,0081	0,011	<	mg/L	0,0010	1	<	<	0,0013	<
Barium (total extractible)	mg/L	0,0020	-	-	0,34	0,45	0,16	mg/L	0,0020	1	<	0,053	0,074	0,11
Cadmium (total extractible)	mg/L	0,00020	2	0,03	0,020	0,024	0,0033	mg/L	0,00020	0,1	<	0,00034	0,00088	0,00082
Chromium VI	mg/L	0,0050	2,5	<	<	<	<	mg/L	0,0050	0,04	-	<	<	<
Chromium (total extractible)	mg/L	0,0050	5	0,04	0,091	0,45	<	mg/L	0,0050	1	<	<	<	<
Cobalt (total extractible)	mg/L	0,0010	5	0,01	0,024	-	-	-	-	-	-	-	-	-
Copper (total extractible)	mg/L	0,0010	3	0,2	0,28	0,69	0,027	mg/L	0,0010	1	<	0,013	0,023	0,025
Tin (total extractible)	mg/L	0,0020	5	<	0,027	0,056	<	mg/L	0,0020	1	<	<	<	<
Iron (total extractible)	mg/L	0,060	-	-	45	43	2,8	mg/L	0,060	15	-	1,10	0,92	2,8
Manganese (total extractible)	mg/L	0,0010	-	-	1,3	0,9	0,70	mg/L	0,0010	0,1	-	0,14	0,25	0,32
Mercury (total extractible)	mg/L	0,00010	0,010	-	0,0015	0,0049	0,00020	mg/L	0,00010	0,001	<	<	<	<
Molybdenum (total extractible)	mg/L	0,0010	5	0,01	0,018	-	-	mg/L	0,0010	-	-	-	-	-
Nickel (total extractible)	mg/L	0,0020	5	0,07	0,13	0,25	0,010	mg/L	0,0020	1	<	0,008	0,0098	0,012
Lead (total extractible)	mg/L	0,00050	2	0,97	0,88	0,98	0,043	mg/L	0,00050	0,1	<	0,017	0,020	0,028
Selenium (total extractible)	mg/L	0,0030	1	0,003	<	<	<	mg/L	0,0030	0,02	0,002	<	<	<
Zinc (total extractible)	mg/L	0,0070	10	14,2	8,7	9,5	0,62	mg/L	0,0070	1	0,20	0,34	2,4	0,55
Σ conc. As+Cd+Cr+Cu+Ni+Pb+Zn	mg/L	-	15	15,5	10,1	11,9	0,71	-	-	-	-	-	-	-
Σ masses As+Cd+Cr+Cu+Ni+Pb+Zn	kg/day	-	10 kg/day	0,24	0,15	0,19	0,011	-	-	-	-	-	-	-
Other inorganic compounds														
Nitrogen (total)	mg/L	0,40	70	49,1	5,2	3,3	7,7	-	-	-	-	-	-	-
Ammoniacal nitrogen (NH ₄ ⁺)	mg/L	0,020	45	3,54	0,54	1,5	2,3	mg/L	0,020	12	0,18	0,35	0,16	0,28
Chlorides	mg/L	-	-	-	-	-	-	mg/L	0,50	1500	-	110	-	-
Chlorine (total)	mg/L	-	-	-	-	-	-	mg/L	0,10	1	-	<	-	-
Cyanides (CN ⁻ ; total)	mg/L	0,0030	2	0,041	0,0033	-	-	mg/L	0,0030	0,1	<	<	-	-
Fluorides	mg/L	0,10	10	5,71	0,41	-	-	mg/L	0,10	2	0,29	0,38	-	-
Phosphorous (P-PO ₄ ³⁻ ; total)	mg/L	0,0010	20	6,56	2,6	2,8	0,77	mg/L	0,0010	0,4	0,03	0,040	<	0,076
Sulfates	mg/L	-	-	-	-	-	-	mg/L	5,0	1500	-	270	-	150
Sulfides (H ₂ S)	mg/L	0,040	5	6,6	1,4	2	3,3	mg/L	0,040	1	0,03	<	<	-
Physico-chemical parameters														
Suspended solids (SS)	mg/L	6,7	500	514	540	650	37	mg/L	6,7	30	16	24	25	49
Colour after 4:1 dilution	-	-	-	-	-	-	-	UCV	2,0	15	<	12	3,2	15
pH	-	0,01	6,0 - 11,5	7,51	7,96	7,66	7,60	-	0,01	6,0 - 9,5	7,44	7,65	7,73	7,81
Temperature	°C	0,1	65	21,7	17,3	16,4	15,4	°C	0,1	45	17,8	7,4	7,1	7,8
Chemical oxygen demand	mg/L	10	1 000	810	240	240	290	mg/L	10	60	43	32	66	74

Notes:

¹ Column B of Schedule 1 of By-law 2008-47 of the Communauté métropolitaine de Montréal (CMM)

² Wastewater treatment plant of the Régie d'assainissement des eaux du bassin de Laprairie (RAEBL)

³ Column C of Schedule 1 of By-law 2008-47 of the Communauté métropolitaine de Montréal (CMM)

Legend:

5	: Value > applicable criterion of column B of Schedule I to R2008-47 of the CMM
5	: Value > applicable criterion of column C of Schedule I to R2008-47 of the CMM
-	: Not analyzed or no criteria/standard for this parameter
<	: Value < reported detection limit

All samples were analyzed by a laboratory duly accredited by the Centre d'expertise en analyse environnementale du Québec. Quality controls are carried out during each sampling campaign. Overall, all the results attest of the reliability and reproducibility of the analyses.

ANALYTICAL PARAMETERS	SANITARY SEWER NETWORK							STORM SEWER NETWORK						
	Unit	Reported detection limit	Criteria ¹	Analytical results				Unit	Reported detection limit	Criteria ³	Analytical results			
			Biological treatment ²	2018	2019	2020	2021			Storm water	2018	2019	2020	2021
				August	October	November	October				October	December	November	October
Oils and fats														
Oils and fats (total)	µg/L	5 000	150 000	429 000	11 000	<	13 000	µg/L	5 000	15 000	<	3500	<	<
Oils and fats (mineral)	µg/L	5 000	30 000	77 600	11 000	5 500	5 500	µg/L	5 000	15 000	<	<	<	<
Monocyclic aromatic hydrocarbons (MAH)														
Benzene	µg/L	1,0	1 300	<	<	-	-	µg/L	1,0	120	<	<	-	-
Toluene	µg/L	1,0	1 000	4,4	<	-	-	µg/L	1,0	200	<	<	-	-
Ethylbenzene	µg/L	1,0	1 000	0,4	<	-	-	µg/L	1,0	190	<	<	-	-
Xylenes (o,m,p)	µg/L	1,0	1 800	2,4	<	-	-	µg/L	1,0	360	<	<	-	-
1,4-dichlorobenzene	µg/L	1,0	1 300	1,7	1	-	-	µg/L	1,0	110	<	<	-	-
1,2-dichlorobenzene	µg/L	1,0	200	<	<	-	-	µg/L	1,0	200	<	<	-	-
Chlorinated aliphatic hydrocarbons (CAH)														
Chloroform	µg/L	1,0	400	<	<	-	-	µg/L	1,0	80	<	<	-	-
1,2-dichloroethylene	µg/L	1,0	2 500	<	<	-	-	µg/L	1,0	-	-	<	-	-
1,3-dichloropropylene	µg/L	1,0	150	<	<	-	-	µg/L	1,0	30	<	<	-	-
1,1,2,2-tetrachloroethane	µg/L	1,0	1 000	<	<	-	-	µg/L	1,0	17	<	<	-	-
Tetrachloroethene	µg/L	1,0	5 000	<	<	-	-	µg/L	1,0	200	<	<	-	-
Trichloroethylene	µg/L	1,0	1 000	<	<	-	-	µg/L	1,0	200	<	<	-	-
Methylene chloride	µg/L	15	5 000	<	<	-	-	µg/L	15	470	<	<	-	-
Polychlorinated biphenyls (PCB; total)	µg/L	0,020	1	7,75	17	71	2,0	µg/L	0,020	1	0,02	<	-	-
Phenolic compounds														
Phenolic compounds (total)	µg/L	2,0	1 000	130	20	-	-	µg/L	2,0	20	-	3,5	5,2	4,2
Pentachlorophenol	µg/L	1,0	500	<	<	-	-	µg/L	1,0	60	<	<	-	-
Nonylphenols	µg/L	20	300	64	74	240	40	µg/L	20	29	<	<	-	-
Nonylphenol ethoxylates	µg/L	0,40	200	145	12	-	-	µg/L	0,40	120	<	<	-	-
Polycyclic aromatic hydrocarbons (PAH)														
PAHs (total excluding the following)	µg/L	0,12	1	5,1	0,32	0,60	0,40	µg/L	0,12	1	<	<	-	-
Naphthalene	µg/L	0,10	750	1,0	0,59	<	0,27	µg/L	0,10	150	<	<	-	-
Phenanthrene	µg/L	0,10	300	2,3	0,47	0,57	0,54	µg/L	0,10	63	0,1	<	-	-
Fluoranthene	µg/L	0,10	5	3,4	0,48	0,56	0,65	µg/L	0,10	1	0,1	<	-	-
Phthalates and miscellaneous compounds														
3,3'-dichlorobenzidine	µg/L	2,0	30	<	<	-	-	µg/L	2,0	2	<	<	-	-
Bis (2-ethylhexyl) phthalate	µg/L	10	800	60,9	63	-	-	µg/L	10	160	<	<	-	-
Di-butyl phthalate	µg/L	2,0	1 000	1,8	<	-	-	µg/L	2,0	190	<	<	-	-
Fecal Coliforms	-	-	-	-	-	-	-	CFU / 100 mL	10	200	<	<	27	220

Notes:

¹ Column B of Schedule 1 of By-law 2008-47 of the Communauté métropolitaine de Montréal (CMM)

² Wastewater treatment plant of the Régie d'assainissement des eaux du bassin de Laprairie (RAEBL)

³ Column C of Schedule 1 of By-law 2008-47 of the Communauté métropolitaine de Montréal (CMM)

Legend:

5	: Value > applicable criterion of column B of Schedule I to R2008-47 of the CMM
5	: Value > applicable criterion of column C of Schedule I to R2008-47 of the CMM
-	: Not analyzed or no criteria/standard for this parameter
<	: Value < reported detection limit

All samples were analyzed by a laboratory duly accredited by the Centre d'expertise en analyse environnementale du Québec. Quality controls are carried out during each sampling campaign. Overall, all the results attest of the reliability and reproducibility of the analyses.