

Water Treatment Plant June Report 2024 Water Quality Summary

Acronyms

MAC = Maximum acceptable concentration established by Health Canada
AO = Aesthetic objective (no health based limit) suggested by Health Canada
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per litre or one part per million

Health Related

Parameter	Units	Result	MAC
Turbidity	NTU	0.061	0.3
Chloramines	mg/L	1.86	n/a ¹
Nitrate-N	mg/L	0.01	10
Fluoride	mg/L	0.77	1.5
Trihalomethanes	mg/L	0.015	0.1
Aluminum	mg/L	0.1100	2.9
Chromium	mg/L	< 0.0005	0.05
Lead	mg/L	< 0.0001	0.005
Manganese	mg/L	< 0.005	0.12

Non Health Related

Parameter	Units	Result	AO
pH		7.44	7.0 - 10.5
Hardness	mg/L	173	n/a ²
TDS - total dissolved solids	mg/L	221	≤ 500
Sulfate	mg/L	53.0	≤ 500
Sodium	mg/L	15.9	≤ 200
Iron	mg/L	< 0.01	≤ 0.3
Manganese	mg/L	< 0.005	≤ 0.02

¹ Guideline value not necessary due to low toxicity at concentrations found in drinking water. Chloramine residuals in most Canadian drinking water distribution systems are typically below 4 mg/L.

² Although hardness may have significant aesthetic effects, a guideline has not been established because public acceptance of hardness may vary considerably according to the local conditions; major contributor to hardness (calcium & magnesium) are not of direct public health concern

Treated Water - Distribution System

BACTERIOLOGICAL / SECONDARY DISINFECTION

	Jun 3/2024		Jun 10/2024		Jun 18/2024		Jun 25/2024	
	Sample Results		Sample Results		Sample Results		Sample Results	
	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T
Sample 1 North Lethbridge			1.55	N	1.61	N	1.50	N
Sample 2 North Lethbridge	1.54	N			1.30	N	1.50	N
Sample 3 North Lethbridge	1.66	N	1.57	N	1.62	N	1.56	N
Sample 4 North Lethbridge					1.71	N	1.57	N
Sample 5 North Lethbridge	1.68	N						
Sample 6 North Lethbridge					1.76	N	1.60	N
Sample 7 North Lethbridge	1.67	N	1.64	N	1.76	N	1.63	N
Sample 8 North Lethbridge			1.68	N				
Sample 9 North Lethbridge	1.48	N	1.47	N				
Sample 10 North Lethbridge	1.38	N	1.61	N	1.63	N		
Sample 11 North Lethbridge	1.49	N	1.69	N	1.76	N	1.58	N
Sample 12 North Lethbridge	1.42	N	1.50	N				
Sample 13 North Lethbridge					1.47	N	1.41	N
Sample 14 North Lethbridge	1.36	N					1.30	N
Sample 15 North Lethbridge	1.49	N					1.37	N
Sample 16 North Lethbridge			1.59	N				
Sample 17 North Lethbridge			1.53	N	1.66	N		
Sample 18 South Lethbridge	1.39	N					1.33	N
Sample 19 South Lethbridge					1.62	N		
Sample 20 South Lethbridge	1.64	N	1.62	N	1.74	N	1.60	N
Sample 21 South Lethbridge			1.57	N				
Sample 22 South Lethbridge								
Sample 23 South Lethbridge	1.92	N	2.12	N	2.11	N	2.04	N

	Jun 3/2024		Jun 11/2024		Jun 17/2024		Jun 25/2024	
	Sample Results		Sample Results		Sample Results		Sample Results	
	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T
Sample 23 West Lethbridge	1.49	N			1.49	N		
Sample 24 West Lethbridge							1.45	N
Sample 25 West Lethbridge	1.62	N						
Sample 26 West Lethbridge	1.37	N	1.40	N			1.15	N
Sample 27 West Lethbridge	1.53	N					1.50	N
Sample 28 West Lethbridge					1.36	N		
Sample 29 West Lethbridge			1.46	N	1.90	N	1.34	N
Sample 30 West Lethbridge	1.55	N	1.37	N	1.58	N	1.53	N
Sample 31 West Lethbridge	1.59	N	1.57	N			1.16	N
Sample 32 West Lethbridge					1.40	N		
Sample 33 West Lethbridge	1.64	N	1.60	N	1.64	N	1.53	N
Sample 34 West Lethbridge	1.66	N					1.57	N
Sample 35 West Lethbridge			1.62	N	1.57	N		
Sample 36 South Lethbridge							1.63	N
Sample 37 South Lethbridge	1.38	N	1.32	N				
Sample 38 South Lethbridge	1.58	N					1.33	N
Sample 39 South Lethbridge			1.63	N	1.69	N	1.53	N
Sample 40 South Lethbridge	1.75	N	1.61	N	1.63	N	1.51	N
Sample 41 South Lethbridge	1.58	N	1.43	N				
Sample 42 South Lethbridge			1.63	N	1.68	N		
Sample 43 South Lethbridge	1.62	N	1.56	N	1.42	N		
Sample 44 South Lethbridge			1.28	N	1.15	N		
Sample 45 South Lethbridge					1.68	N	1.47	N

Total Negative (N) = 104
Total Positive (P) = 0
Total Re-Samples = 0

Chlorine Residual Minimum = 1.15 mg/L
 Chlorine Residual Maximum = 2.12 mg/L
 Chlorine Residual Average = 1.56 mg/L