



Water Treatment Plant

October Report 2020

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	0.059	0.3
Chloramines	mg/L	2.02	n/a ¹
Nitrate-N	mg/L	0.05	10
Fluoride	mg/L	0.78	1.5
Trihalomethanes	mg/L	0.021	0.1
Chromium	mg/L	<0.001	0.05
Lead	mg/L	<0.0002	0.005
Manganese	mg/L	<0.005	0.12

Non Health Related

Parameter	Units	Result	AO
pH		7.50	7.0 - 10.5
Hardness	mg/L	162	n/a ²
TDS - total dissolved solids	mg/L	203	≤ 500
Sulfate	mg/L	39.9	≤ 500
Sodium	mg/L	12.4	≤ 200
Iron	mg/L	<0.01	0.05
Manganese	mg/L	<0.005	≤ 0.02
Aluminum	mg/L	0.179	n/a ³

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

³ Operational Guidance Value of < 0.1 mg/L total aluminum. There is no consistent, convincing evidence that aluminum in drinking water causes adverse health effects in humans.



City of Lethbridge
Water Treatment Plant

Treated Water - Distribution System

BACTERIOLOGICAL / SECONDARY DISINFECTION

	Oct 5/2020		Oct 19/2020		Oct 20/2020		Oct 26/2020	
	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	1.62	N	1.80	N			1.65	N
Sample 2 North Lethbridge					1.55	N	0.97	N
Sample 3 North Lethbridge	1.92	N	2.13	N			1.92	N
Sample 4 North Lethbridge								
Sample 5 North Lethbridge								
Sample 6 North Lethbridge								
Sample 7 North Lethbridge	1.75	N	1.91	N				
Sample 8 North Lethbridge	1.71	N	1.83	N	1.86	N	1.85	N
Sample 9 North Lethbridge								
Sample 10 North Lethbridge			1.95	N				
Sample 11 North Lethbridge	1.81	N	2.09	N			1.92	N
Sample 12 North Lethbridge	1.50	N			1.87	N		
Sample 13 North Lethbridge	1.15	N	1.44	N	1.36	N	1.67	N
Sample 14 North Lethbridge								
Sample 15 North Lethbridge	1.43	N	1.53	N	1.93	N	1.80	N
Sample 16 South Lethbridge	1.28	N	1.33	N	1.60	N	1.72	N
Sample 17 South Lethbridge	1.53	N	1.42	N	1.89	N	1.70	N
Sample 18 South Lethbridge	1.68	N	1.71	N	1.79	N	1.79	N
Sample 19 South Lethbridge	2.01	N	2.02	N			1.83	N
Sample 20 South Lethbridge					1.74	N	1.78	N
Sample 21 South Lethbridge					1.21	N		
Sample 22 South Lethbridge	2.32	N	2.08	N			2.00	N

	Oct 5/2020		Oct 19/2020		Oct 20/2020		Oct 27/2020	
	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	1.32	N	1.14	N				
Sample 24 West Lethbridge	1.46	N	1.59	N	1.58	N		
Sample 25 West Lethbridge								
Sample 26 West Lethbridge								
Sample 27 West Lethbridge								
Sample 28 West Lethbridge								
Sample 29 West Lethbridge	1.47	N	1.42	N	1.49	N	1.44	N
Sample 30 West Lethbridge	1.77	N	1.92	N			1.63	N
Sample 31 West Lethbridge					1.86	N	1.75	N
Sample 32 West Lethbridge								
Sample 33 West Lethbridge	1.69	N	2.05	N			1.86	N
Sample 34 West Lethbridge	1.65	N	1.79	N	1.75	N	1.87	N
Sample 35 West Lethbridge	1.62	N	1.70	N				
Sample 36 South Lethbridge					1.52	N	1.67	N
Sample 37 South Lethbridge	1.42	N	1.45	N	1.43	N	1.59	N
Sample 38 South Lethbridge					1.28	N	1.31	N
Sample 39 South Lethbridge								
Sample 40 South Lethbridge	1.71	N	1.82	N			1.70	N
Sample 41 South Lethbridge	1.58	N	1.72	N	1.70	N	1.83	N
Sample 42 South Lethbridge								
Sample 43 South Lethbridge	1.48	N	1.64	N	1.64	N	1.53	N
Sample 44 South Lethbridge								
Sample 45 South Lethbridge					1.25	N		

Total Negative (N) = 92
 Total Positive (P) = 0
 Total Re-Samples = 0

Chlorine Residual Minimum = 0.97 mg/L
 Chlorine Residual Maximum = 2.32 mg/L
 Chlorine Residual Average = 1.66 mg/L