CITY OF Lethbridge

Water Treatment Plant

June Report 2022

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	0.083	0.3
Chloramines	mg/L	1.87	n/a[1]
Nitrate-N	mg/L	0.03	10
Fluoride	mg/L	0.80	1.5
Trihalomethanes	mg/L	0.015	0.1
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		7.42	7.0 - 10.5
Hardness	mg/L	150	n/a[2]
TDS - total dissolved solids	mg/L	185	≤ 500
Sulfate	mg/L	31.0	≤ 500
Sodium	mg/L	8.1	≤ 200
Iron	mg/L	<0.01	0.05
Manganese	mg/L	<0.005	≤ 0.02
Aluminum	mg/L	0.134	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 guidline 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.

Treated Water - Distribution System

BACTERIOLOGICAL / SECONDARY DISINFECTION

	Jun 6/2022		Jun 13/2022		Jun 21/2022		Jun 27/2022	
	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	1.17	N	1.13	N	1.37	N	1.41	N
Sample 2 North Lethbridge								
Sample 3 North Lethbridge	1.36	N	1.18	N	1.42	N	1.51	N
Sample 4 North Lethbridge								
Sample 5 North Lethbridge	1.29	N			1.36	N		
Sample 6 North Lethbridge			1.14	N	1.52	N	1.34	N
Sample 7 North Lethbridge	1.48	N	1.20	N	1.58	N	1.39	N
Sample 8 North Lethbridge	1.41	N						
Sample 9 North Lethbridge			1.08	N				
Sample 10 North Lethbridge					1.49	N	1.38	N
Sample 11 North Lethbridge	0.89	N	1.30	N	1.57	N	1.51	N
Sample 12 North Lethbridge			0.78	N	1.51	N		
Sample 13 North Lethbridge			0.92	N	1.16	N	1.45	N
Sample 14 North Lethbridge	1.16	N					1.30	N
Sample 15 North Lethbridge								
Sample 16 North Lethbridge	1.24	N			1.99	N	1.72	N
Sample 17 North Lethbridge	1.32	N			1.35	N	1.38	N
Sample 18 South Lethbridge								
Sample 19 South Lethbridge	1.39	N	1.07	N				
Sample 20 South Lethbridge	1.41	N	1.18	N	1.49	N	1.55	N
Sample 21 South Lethbridge	1.43	N	0.99	N				
Sample 22 South Lethbridge			0.72	N			0.88	N
Sample 23 South Lethbridge	2.11	N	2.18	N	2.20	N	2.21	N

	Jun 7/2022		Jun 14/2022		Jun 20/2022		Jun 28/2022	
	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			1.07	N	1.19	N		
Sample 24 West Lethbridge	1.11	N	0.95	N				
Sample 25 West Lethbridge			1.10	N				
Sample 26 West Lethbridge			0.92	N			1.05	N
Sample 27 West Lethbridge	1.09	N						
Sample 28 West Lethbridge								
Sample 29 West Lethbridge			0.79	N	1.13	N	1.33	N
Sample 30 West Lethbridge	1.10	N	0.94	N	1.28	N	1.42	N
Sample 31 West Lethbridge	1.12	N						
Sample 32 West Lethbridge			0.76	N				
Sample 33 West Lethbridge	1.32	N	0.94	N	1.31	N	1.32	N
Sample 34 West Lethbridge	1.28	N			1.33	N	1.31	N
Sample 35 West Lethbridge					1.26	N	1.18	N
Sample 36 South Lethbridge	1.37	N					1.52	N
Sample 37 South Lethbridge	1.12	N	0.80	N			1.18	N
Sample 38 South Lethbridge	1.01	N	0.85	N	0.90	N	1.04	N
Sample 39 South Lethbridge	1.46	N						
Sample 40 South Lethbridge	1.38	N	0.93	N	0.89	N	1.30	N
Sample 41 South Lethbridge					1.30	N		
Sample 42 South Lethbridge			1.16	N				
Sample 43 South Lethbridge	1.23	N	0.87	N	1.04	N		
Sample 44 South Lethbridge					0.79	N	0.74	N
Sample 45 South Lethbridge	1.31	N			1.43	N	1.37	N

Total Negative (N) =	**102**
Total Positive (P) =	**0**
Total Re-Samples =	**0**

Chlorine Residual Minimum =	**0.72 mg/L**
Chlorine Residual Maximum =	**2.21 mg/L**
Chlorine Residual Average =	**1.26 mg/L**