

**2.2.1 Bacteriological Data: Water Treatment Plants
2023**

	Coliforms, total					E. coli					cATP (pg/mL)				
	Count	# +ve	% +ve	Mean	Min	Max	# +ve	% +ve	Mean	Min	Max	Count	Mean	Min	Max
January															
Rossdale Raw (MPN/100mL)	31			84	24	308			4	1	26	1	27.2	27.2	27.2
E.L. Smith Raw (MPN/100mL)	4			72	40	120			1	1	1	0			
Raw River Water Entering the Treatment Plants	35			83	24	308			4	1	26	1	27.2	27.2	27.2
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.69	0.10	1.99
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.65	0.11	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.67	0.10	1.99
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.71	0.12	1.07
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.60	0.13	1.81
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.66	0.12	1.81
February															
Rossdale Raw (MPN/100mL)	28			65	21	166			9	1	24	1	32.2	32.2	32.2
E.L. Smith Raw (MPN/100mL)	4			36	25	51			1	1	1	1	27.0	27.0	27.0
Raw River Water Entering the Treatment Plants	32			61	21	166			8	1	24	2	29.6	27.0	32.2
Rossdale Treated (PA/100mL)	28	0	0.0				0	0.0				28	0.85	0.11	2.10
E.L. Smith Treated (PA/100mL)	28	0	0.0				0	0.0				28	0.82	0.10	2.51
Water Entering the Plant Reservoir	56	0	0.0				0	0.0				56	0.84	0.10	2.51
Rossdale Reservoir (PA/100mL)	28	0	0.0				0	0.0				28	0.76	0.10	1.71
E.L. Smith Reservoir (PA/100mL)	28	0	0.0				0	0.0				28	0.77	0.11	2.25
Treated Water Entering the Distribution System	56	0	0.0				0	0.0				56	0.77	0.10	2.25

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	Coliforms, total					E. coli					cATP (pg/mL)				
	Count	# +ve	% +ve	Mean	Min	Max	# +ve	% +ve	Mean	Min	Max	Count	Mean	Min	Max
March															
Rossdale Raw (MPN/100mL)	31			264	16	980			31	1	115	1	68.3	68.3	68.3
E.L. Smith Raw (MPN/100mL)	5			19	13	29			1	1	2	1	21.7	21.7	21.7
Raw River Water Entering the Treatment Plants	36			230	13	980			27	1	115	2	45.0	21.7	68.3
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.71	0.11	1.47
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.69	0.10	1.59
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.70	0.10	1.59
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.85	0.12	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.70	0.11	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.78	0.11	1.00
April															
Rossdale Raw (MPN/100mL)	30			224	42	1,200			15	2	50	1	207	207	207
E.L. Smith Raw (MPN/100mL)	4			52	15	88			1	1	2	1	186	186	186
Raw River Water Entering the Treatment Plants	34			203	15	1,200			13	1	50	2	197	186	207
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.69	0.12	2.46
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.64	0.10	2.28
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.67	0.10	2.46
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.73	0.10	2.42
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.62	0.10	3.35
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.68	0.10	3.35

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	Coliforms, total					E. coli					cATP (pg/mL)				
	Count	# +ve	% +ve	Mean	Min	Max	# +ve	% +ve	Mean	Min	Max	Count	Mean	Min	Max
May															
Rossdale Raw (MPN/100mL)	32			408	1	5,820			26	1	320	3	52.1	32.8	75.4
E.L. Smith Raw (MPN/100mL)	5			159	140	179			12	2	31	1	62.9	62.9	62.9
Raw River Water Entering the Treatment Plants	37			374	1	5,820			24	1	320	4	54.8	32.8	75.4
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.67	0.11	1.46
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.75	0.11	1.62
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.71	0.11	1.62
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.66	0.11	1.18
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.70	0.11	1.01
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.68	0.11	1.18
June															
Rossdale Raw (MPN/100mL)	30			3,552	66	31,100			171	1	1,720	1	54.5	54.5	54.5
E.L. Smith Raw (MPN/100mL)	4			6,767	219	24,100			247	22	828	1	125	125	125
Raw River Water Entering the Treatment Plants	34			3,931	66	31,100			180	1	1,720	2	89.5	54.5	125
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.89	0.11	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.78	0.11	1.15
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.84	0.11	1.15
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.81	0.12	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.87	0.14	1.00
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.84	0.12	1.00

PA = present or absent, MPN = most probable number, cATP = cellular adenosine triphosphate

2.2.2 Bacteriological Data: Distribution System
June 2023

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
January									
FIELD DISTRIBUTION	132	0	0.0	0	0.0	56	0.41	0.10	1.06
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	65	0	0.0	0	0.0	65	0.49	0.12	1.08
FIELD RESERVOIR - PLPH (duplicate-not counted)	65	0	0.0	0	0.0				
Monthly	253	0	0.0	0	0.0	121	0.45	0.10	1.08
February									
FIELD DISTRIBUTION	150	1	0.7	0	0.0	56	0.92	0.13	1.84
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	50	0	0.0	0	0.0	50	0.73	0.10	4.28
FIELD RESERVOIR - PLPH (duplicate-not counted)	50	0	0.0	0	0.0				
Monthly	256	1	0.4	0	0.0	106	0.83	0.10	4.28
March									
FIELD DISTRIBUTION	140	0	0.0	0	0.0	56	0.40	0.11	1.91
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.31	0.11	1.45
FIELD RESERVOIR - PLPH (duplicate-not counted)	51	0	0.0	0	0.0				
Monthly	248	0	0.0	0	0.0	108	0.35	0.11	1.91
April									
FIELD DISTRIBUTION	142	0	0.0	0	0.0	55	0.43	0.11	2.24
FIELD DISTRIBUTION - PLPH	55	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.50	0.11	2.29
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	249	0	0.0	0	0.0	107	0.46	0.11	2.29

2.2.2 Bacteriological Data: Distribution System
June 2023

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
May									
FIELD DISTRIBUTION	159	0	0.0	0	0.0	57	0.59	0.13	4.48
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	66	0	0.0	0	0.0	66	0.43	0.10	1.34
FIELD RESERVOIR - PLPH (duplicate-not counted)	64	0	0.0	0	0.0				
Monthly	281	0	0.0	0	0.0	123	0.51	0.10	4.48
June									
FIELD DISTRIBUTION	148	1	0.7	0	0.0	56	0.25	0.10	1.03
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.25	0.11	0.71
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	256	1	0.4	0	0.0	108	0.25	0.10	1.03
Year to Date	1,543	2	0.1	0	0.0	673	0.51	0.10	4.48

Guidelines for Canadian Drinking Water Quality recommend 195 bacteriological samples for a city the size of Edmonton. Total Coliform and E.coli testing is required in the AEP Approval. At least 95 of the 195 samples must be tested at ProvLab each month according to our Operations Program.

Testing conducted by Laboratory for Provincial Laboratory for Public Health (ProvLAB) are labelled with PLPH.

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June 2023**

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
Samples from Complaints									
January	12	1	8.3	0	0.0	8	0.58	0.14	1.30
February	8	0	0.0	0	0.0	8	0.81	0.10	1.93
March	16	1	6.3	0	0.0	12	0.52	0.15	1.29
April	18	0	0.0	0	0.0	18	0.39	0.11	0.91
May	11	0	0.0	0	0.0	11	0.65	0.16	1.45
June	12	0	0.0	0	0.0	12	0.17	0.10	0.29
Year to Date	77	2	2.6	0	0.0	69	0.50	0.10	1.93
Samples from Depressurizations									
January	54	0	0.0	0	0.0				
February	49	1	2.0	0	0.0				
March	60	0	0.0	0	0.0				
April	49	0	0.0	0	0.0				
May	68	0	0.0	0	0.0				
June	75	0	0.0	0	0.0				
Year to Date	355	1	0.3	0	0.0				