

**2.2.1 Bacteriological Data: Water Treatment Plants
2022**

	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)	32	0	0.0	81	1	387	0	0.0	9	1	51	1	10.7	10.7	10.7
E.L. Smith Raw (MPN/100mL)	5	0	0.0	44	31	68	0	0.0	1	1	2	1	15.0	15.0	15.0
Raw River Water Entering the Treatment Plants	37	0	0.0	76	1	387	0	0.0	8	1	51	2	12.9	10.7	15.0
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.61	0.03	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.43	0.03	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.52	0.03	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.66	0.03	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.49	0.03	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.58	0.03	1.00
February															
Rossdale Raw (MPN/100mL)	29	0	0.0	188	1	1,990	0	0.0	12	1	58	1	24.8	24.8	24.8
E.L. Smith Raw (MPN/100mL)	5	0	0.0	57	19	196	0	0.0	1	1	3	1	29.6	29.6	29.6
Raw River Water Entering the Treatment Plants	34	0	0.0	169	1	1,990	0	0.0	10	1	58	2	27.2	24.8	29.6
Rossdale Treated (PA/100mL)	28	0	0.0				0	0.0				28	0.48	0.03	1.00
E.L. Smith Treated (PA/100mL)	28	0	0.0				0	0.0				28	0.40	0.03	1.00
Water Entering the Plant Reservoir	56	0	0.0				0	0.0				56	0.44	0.03	1.00
Rossdale Reservoir (PA/100mL)	28	0	0.0				0	0.0				28	0.61	0.04	1.00
E.L. Smith Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.22	0.03	1.00
Treated Water Entering the Distribution System	57	0	0.0				0	0.0				57	0.41	0.03	1.00

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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)	32	0	0.0	1,105	1	7,310	0	0.0	40	1	161	1	11.5	11.5	11.5
E.L. Smith Raw (MPN/100mL)	5	0	0.0	240	8	722	0	0.0	5	1	20	1	15.2	15.2	15.2
Raw River Water Entering the Treatment Plants	37	0	0.0	988	1	7,310	0	0.0	35	1	161	2	13.3	11.5	15.2
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.70	0.03	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.62	0.03	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.66	0.03	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.76	0.03	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.53	0.03	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.64	0.03	1.00
April															
Rossdale Raw (MPN/100mL)	31	0	0.0	356	1	2,420	0	0.0	26	1	276	1	78.4	78.4	78.4
E.L. Smith Raw (MPN/100mL)	5	0	0.0	148	43	291	0	0.0	1	1	2	1	91.7	91.7	91.7
Raw River Water Entering the Treatment Plants	36	0	0.0	327	1	2,420	0	0.0	23	1	276	2	85.0	78.4	91.7
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.75	0.03	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.67	0.03	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.71	0.03	1.00
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.72	0.03	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.75	0.03	1.00
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.73	0.03	1.00

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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	0	0.0	333	1	2,670	0	0.0	25	1	158	1	269	269	269
E.L. Smith Raw (MPN/100mL)	4	0	0.0	91	71	121	0	0.0	2	1	2	1	78.2	78.2	78.2
Raw River Water Entering the Treatment Plants	36	0	0.0	306	1	2,670	0	0.0	22	1	158	2	174	78.2	269
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.76	0.03	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.61	0.02	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.69	0.02	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.79	0.02	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.80	0.03	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.79	0.02	1.00
June															
Rossdale Raw (MPN/100mL)	30	0	0.0	2,510	35	15,400	0	0.0	128	3	654	1	178	178	178
E.L. Smith Raw (MPN/100mL)	5	0	0.0	882	88	1,730	0	0.0	44	2	84	1	182	182	182
Raw River Water Entering the Treatment Plants	35	0	0.0	2,278	35	15,400	0	0.0	116	2	654	2	180	178	182
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.82	0.07	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.64	0.03	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.73	0.03	1.00
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.77	0.07	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.82	0.03	1.00
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.79	0.03	1.00

**2.2.1 Bacteriological Data: Water Treatment Plants
2022**

	Coliforms, total						E. coli					cATP (pg/mL)			
	Count	# +ve	% +ve	Mean	Min	Max	# +ve	% +ve	Mean	Min	Max	Count	Mean	Min	Max
July															
Rossdale Raw (MPN/100mL)	31	0	0.0	4,014	186	48,400	0	0.0	232	4	3,720	1	268	268	268
E.L. Smith Raw (MPN/100mL)	4	0	0.0	1,617	727	4,200	0	0.0	57	7	150	0			
Raw River Water Entering the Treatment Plants	35	0	0.0	3,740	186	48,400	0	0.0	212	4	3,720	1	268	268	268
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.92	0.06	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.80	0.03	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.86	0.03	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.88	0.03	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.88	0.05	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.88	0.03	1.00
August															
Rossdale Raw (MPN/100mL)	31	0	0.0	466	75	4,370	0	0.0	24	3	170	1	49.2	49.2	49.2
E.L. Smith Raw (MPN/100mL)	5	0	0.0	324	172	613	0	0.0	10	5	14	1	55.4	55.4	55.4
Raw River Water Entering the Treatment Plants	36	0	0.0	446	75	4,370	0	0.0	22	3	170	2	52.3	49.2	55.4
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.70	0.03	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.86	0.08	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.78	0.03	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.82	0.03	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.89	0.06	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.85	0.03	1.00

**2.2.1 Bacteriological Data: Water Treatment Plants
2022**

	Coliforms, total						E. coli					cATP (pg/mL)			
	Count	# +ve	% +ve	Mean	Min	Max	# +ve	% +ve	Mean	Min	Max	Count	Mean	Min	Max
September															
Rossdale Raw (MPN/100mL)	30	0	0.0	180	34	921	0	0.0	23	1	194	1	58.4	58.4	58.4
E.L. Smith Raw (MPN/100mL)	4	0	0.0	231	79	579	0	0.0	70	6	248	1	81.8	81.8	81.8
Raw River Water Entering the Treatment Plants	34	0	0.0	186	34	921	0	0.0	29	1	248	2	70.1	58.4	81.8
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.68	0.15	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.60	0.12	1.04
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.64	0.12	1.04
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.66	0.11	1.33
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.76	0.15	1.17
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.71	0.11	1.33

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

2.2.2 Bacteriological Data: Distribution System
September 2022

	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	91	0	0.0	0	0.0	60	0.09	0.03	0.37
FIELD DISTRIBUTION - PLPH	60	0	0.0	0	0.0				
FIELD RESERVOIR	50	0	0.0	0	0.0	50	0.07	0.02	0.20
FIELD RESERVOIR - PLPH (duplicate-not counted)	48	0	0.0	0	0.0				
Monthly	201	0	0.0	0	0.0	110	0.09	0.02	0.37
February									
FIELD DISTRIBUTION	89	0	0.0	0	0.0	57	0.09	0.03	0.28
FIELD DISTRIBUTION - PLPH	60	0	0.0	0	0.0	3	0.13	0.13	0.13
FIELD RESERVOIR	48	0	0.0	0	0.0	48	0.11	0.03	0.30
FIELD RESERVOIR - PLPH (duplicate-not counted)	48	0	0.0	0	0.0				
Monthly	197	0	0.0	0	0.0	108	0.10	0.03	0.30
March									
FIELD DISTRIBUTION	85	0	0.0	0	0.0	61	0.09	0.03	0.37
FIELD DISTRIBUTION - PLPH	60	0	0.0	0	0.0				
FIELD RESERVOIR	60	0	0.0	0	0.0	60	0.09	0.03	0.58
FIELD RESERVOIR - PLPH (duplicate-not counted)	59	0	0.0	0	0.0				
Monthly	205	0	0.0	0	0.0	121	0.09	0.03	0.58
April									
FIELD DISTRIBUTION	94	0	0.0	0	0.0	61	0.18	0.03	1.26
FIELD DISTRIBUTION - PLPH	60	0	0.0	0	0.0				
FIELD RESERVOIR	55	0	0.0	0	0.0	55	0.09	0.03	0.37
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	209	0	0.0	0	0.0	116	0.14	0.03	1.26

2.2.2 Bacteriological Data: Distribution System
September 2022

	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	98	0	0.0	0	0.0	58	0.09	0.03	0.24
FIELD DISTRIBUTION - PLPH	58	0	0.0	0	0.0				
FIELD RESERVOIR	64	0	0.0	0	0.0	64	0.11	0.02	0.73
FIELD RESERVOIR - PLPH (duplicate-not counted)	61	0	0.0	0	0.0				
Monthly	220	0	0.0	0	0.0	122	0.10	0.02	0.73
June									
FIELD DISTRIBUTION	88	0	0.0	0	0.0	56	0.12	0.03	0.87
FIELD DISTRIBUTION - PLPH	60	0	0.0	0	0.0				
FIELD RESERVOIR	48	0	0.0	0	0.0	48	0.21	0.04	1.04
FIELD RESERVOIR - PLPH (duplicate-not counted)	59	0	0.0	0	0.0				
Monthly	196	0	0.0	0	0.0	104	0.16	0.03	1.04
July									
FIELD DISTRIBUTION	87	0	0.0	0	0.0	56	0.39	0.03	1.66
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	1.21	0.03	4.49
FIELD RESERVOIR - PLPH (duplicate-not counted)	63	0	0.0	0	0.0				
Monthly	195	0	0.0	0	0.0	108	0.85	0.03	4.49
August									
FIELD DISTRIBUTION	96	1	1.0	0	0.0	58	0.29	0.03	1.08
FIELD DISTRIBUTION - PLPH	57	1	1.8	0	0.0				
FIELD RESERVOIR	66	0	0.0	0	0.0	66	0.64	0.03	5.14
FIELD RESERVOIR - PLPH (duplicate-not counted)	65	1	1.5	0	0.0				
Monthly	219	3	1.4	0	0.0	124	0.47	0.03	5.14

**2.2.2 Bacteriological Data: Distribution System
September 2022**

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
September									
FIELD DISTRIBUTION	145	0	0.0	0	0.0	56	0.66	0.14	3.92
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	53	0	0.0	0	0.0	53	0.50	0.11	1.64
FIELD RESERVOIR - PLPH (duplicate-not counted)	51	0	0.0	0	0.0				
Monthly	254	0	0.0	0	0.0	109	0.58	0.11	3.92
Year to Date	1,896	3	0.2	0	0.0	1,022	0.35	0.02	5.14

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.

**2.2.2 Bacteriological Data: Distribution System
September 2022**

	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	4	0	0.0	0	0.0	4	0.21	0.03	0.68
February	10	0	0.0	0	0.0	10	0.19	0.03	0.50
March	12	0	0.0	0	0.0	12	0.17	0.07	0.30
April	7	0	0.0	0	0.0	7	0.12	0.04	0.21
May	11	0	0.0	0	0.0	11	0.12	0.04	0.33
June	9	0	0.0	0	0.0	9	0.14	0.04	0.29
July	12	0	0.0	0	0.0	12	0.28	0.04	0.84
August	5	0	0.0	0	0.0	5	0.30	0.18	0.53
September	8	0	0.0	0	0.0	8	0.41	0.13	0.74
Year to Date	78	0	0.0	0	0.0	78	0.22	0.03	0.84
Samples from Depressurizations									
January	67	0	0.0	0	0.0				
February	49	0	0.0	0	0.0				
March	58	0	0.0	0	0.0				
April	53	0	0.0	0	0.0				
May	83	0	0.0	0	0.0				
June	69	0	0.0	0	0.0				
July	78	1	1.3	0	0.0				
August	88	0	0.0	0	0.0				
September	86	0	0.0	0	0.0				
Year to Date	631	1	0.2	0	0.0				