EDMONTON WATERWORKS
MONTHLY REPORT

September 2024

PROVIDING MORE EPCOR

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1.1.1 Operations – Rossdale and E.L. Smith Plants

Plant Bypasses

The number of bypasses shown on Table 1.2.26 “Rossdale Waste Stream Data” and Table 1.2.27 “E.L. Smith Waste Stream Data” include both planned and unplanned bypasses. A planned bypass is any bypass that is planned a minimum of one day ahead of the actual bypass. All other bypasses are considered unplanned.

In September, Rossdale Plant had 1 planned shutdowns and 1 unplanned bypass.

Date	Type	Bypass Description
Sep 4	Unplanned	1.2 hours bypass due to power bump
Sep 24-26	Planned	33.8 hours shutdown for capital project work

In September, E.L. Smith Plant had 2 planned shutdowns and 1 unplanned shutdown.

Date	Type	Bypass Description
Sep 4	Unplanned	0.55 hours shutdown for Power Outage
Sep 11	Planned	13.3 hours shutdown for Capital and maintenance works
Sep 23	Planned	5.1 hours shutdown for Capital and maintenance works

Clarifier Blowdown Volume

- The clarifier blowdown volume shown on Table 1.2.26 and Table 1.2.27 include estimated plant leakage.

Dechlorination Highlights

- During the month of September, there were zero instances of chlorinated waste released at the outfall structure at Rossdale Water Treatment Plant.
- During the month of September, there were zero instances of chlorinated waste released at the outfall structure at E.L. Smith Water Treatment Plant.

Chemical Dosing Highlights

In September, Rossdale and E.L. Smith Water Treatment Plants did not exceed the Maximum Use in the Standard 60, published by the National Sanitation Foundation and the American National Sanitation Standards Institute (NSF/ANSI) for Alum or Caustic Soda.

Chemicals Used for the Month

CHEMICAL NAME	MANUFACTURER
Aluminum Sulfate 48.5%	Chemtrade
Aqua Ammonia 19%	Univar
Caustic Soda 50%	Chemtrade
Hydrofluorosilicic Acid 25%	Nutrien
Magnafloc LT27AG / Praestol DW27AG	Solenis
Magnafloc LT-7995	Solenis
Phosphoric Acid 75%	Innophos
Sodium Hypochlorite 12%	Univar
Liquid Ammonium Sulphate 41%	Umicore Canada Inc
Salt	Windsor
Sodium Bisulphite 38%	Chemtrade

ENV-1.1.2 EDMONTON INCIDENT REPORT SUMMARY – September 2024

EPCOR Incident Number	Description	Date of Incident	AEPA Reference Number
ENV-20240904-764233-v1	About 60 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water The leak was isolated until the repair was completed.	September 4, 2024	432596
ENV-20240904-804269-v1	About 106 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water. The leak was isolated until the repair was completed.	September 4, 2024	432598
ENV-20240904-810904-v1	About 107 m^3 of potable chlorinated water at +/-1.5ppm was released to the surface due to a suspected leak within the water distribution system buried underground. The water drained to the nearby catch basin. Dechlorination pucks were placed in the path of water and the water entry point into the drainage infrastructure to dechlorinate the water The leak was isolated until the repair was completed.	September 4,2024	432599

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

ROSSDALE WATER TREATMENT PLANT (LEVEL IV)	
Director, Edmonton Water Treatment Plants	
Senior Manager, Operations	**WT II**
Manager, Operations	**WT III, WWT III**
Title	Alberta Environment Certification Level
Operations Engineer	WT I
Manager, Transmission Operations	WT III
Operations Foreman	WT IV
HEI Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Transmission Foreman	WT III
Training Operator Foreman	WT III
Lead Hand, Operator	WT II
Operator I	WT III
Operator I	WT II
Lead Hand, Operator	WT II
Operator I	WT III
Operator I	WT III
Operations Trainer	WT III
Day Foreman	WT IV
Lead Hand, Operator	WT II
Lead Hand, Operator	WT III
Operator I	WT II
Operator I	WT II
Operator I	WT III
Lead Hand, Operator	WT II
Operator I	WT III, WD II
Operator I	WT III, WWT III
Operator I	WT I
Operator I	WT II, WD II, WWT II, WWC II
Operator I (temp)	WT I, WC I
Operator I (temp)	WT II, WD II, WWT I, WWC II

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

E.L. SMITH TREATMENT PLANT (LEVEL IV)	
Director, Edmonton Water Treatment Plants	
Senior Manager, Operations	**WT II**
Manager, Operations	**WT III, WWT III**
Title	Alberta Environment Certification Level
Operations Engineer	
Operations Engineer	WWC I
Day Foreman	WT IV
HEI Foreman	WT IV
Training Operator Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT IV
Operations Foreman	WT III
Operations Foreman	WT IV
Operations Foreman	WT IV
Lead Hand, Operator	WT III
Lead Hand, Operator	WT II
Lead Hand, Operator	WT III
Lead Hand, Operator	WT III
Lead Hand, Operator	WT II, WD II, WWT I, WWC I
Operator I	WT III, WWT II,
Operator I	WT II
Operator I	WT III, WWT III
Operator I	WT II
Operator I	WT II, WD I, WWT II, WWC I
Operator I	WT II, WD I
Operator I	WT III, WD I, WWT II, WWC I

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - NETWORK MAINTENANCE

Senior Manager, Maintenance and Construction

Manager, Distribution Maintenance

Manager, Dist. Maint Schedule

Title	Alberta Environment Certification Level
Water Network Operator	WD IV WWC I
Water Network Operator	WD IV
Foreman III	WD III
Foreman III	WD III
Foreman III	WD III
Foreman III	WD III
Foreman I	WD III WWC I
Foreman I	WD II
Foreman I	WD III
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Foreman I	WD III
Foreman I	WD II
Foreman I	WD II
Foreman I	WD II
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD II
Equipment Operator III	WD I
Equipment Operator III	WD II
Equipment Operator III	WD II
Labourer II	WD I
Labourer II	WD I
Labourer II	WD I
Labourer II	WD I
Labourer III	WD II
Labourer III	WD III
Labourer II	WD I

Labourer III	WD I
Labourer II	WD I
Labourer II	WD I

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)
WATER DISTRIBUTION (WD) - NETWORK MAINTENANCE
Senior Manager, Maintenance and Construction
Manager, Maintenance and Construction
Manager, Dist. Maint Scheduling

Title	Alberta Environment Certification Level
Truck Driver III	WD I
Labourer II	WD I
Labourer II	WD I
Labourer II	WD I
Labourer II	WD II
Labourer II	WD II
Labourer II	WD II
Truck Driver III	WD II
Truck Driver III	WD I
Truck Driver III	WD I
Foreman III	WD III
Welder	WD II
Maintenance Repairman I	WD II
Maintenance Repairman I	WD I
Maintenance Repairman I	WD I
Labourer III	WD I
Labourer II	WD I
Foreman I	WD I
Water Sys Tech Support Specialist	WD II
Water Sys Tech Support Specialist	WD IV

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - FIELD OPERATIONS

Senior Manager, Distribution Operations	
Manager, Field Operations	
Manager, Metering and Preventative Maintenance	**WD I**
Manager, Water Trouble	**WD III**
Title	Alberta Environment Certification Level
Foreman III	WD IV
Foreman III	WD IV
Foreman I	WD II
Foreman I	WD II
Labourer III	WD II
Labourer III	WD II
Labourer III	WD I
Foreman I	WD I
Labourer III	WD III
Labourer II	WD I
Labourer II	WD II
Labourer II	WD I
Labourer III	WD I
Labourer III	WD I
Labourer II	WD II
Labourer II	WD I
Labourer III	WD I
Labourer II	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD III
Water Systems Serviceman	WD II
Water Systems Serviceman	WD III
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II
Water Systems Serviceman	WD II

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER DISTRIBUTION (WD) - CUSTOMER SERVICE

Senior Manager, Customer Service

Manager, Dispatch

Manager, Inspections and Customer Service

Title	Alberta Environment Certification Level
Team Lead, Dispatch	
Dispatcher Coordinator	WD I
Inspector – Water Metering	WD II
Inspector – Water Metering	WD I
Foreman III	WD III
Manager, Cross Connections	WD II
Inspector – Cross Connections	WD I

1.1.3 Alberta Environment Operator Certifications

Operator Contact Number: EPCOR Water Services Dispatch (24 hr) (780) 412-4500

DISTRIBUTION SYSTEM (LEVEL IV FACILITY)

WATER METERING (WD)

Manager, Metering Operations	**WD I**
Title	Alberta Environment Certification Level
Foreman III	WD II
Meter Mechanic II	WD II
Meter Installer II	WD III
Meter Installer I	WD I
Meter Installer I	WD II
Meter Installer I	WD II
Meter Installer I	WD I
Meter Installer I	WD III
Meter Installer II	WD I

1.2.1 Raw Water Intake (ML)

September 2024

Day	Rossdale			E.L. Smith	Plants Combined Total
	Plant 1	Plant 2	Plant Total	Plant Total	
1	60	120	180	281	461
2	76	104	181	290	471
3	100	100	200	300	500
4	94	94	188	299	488
5	90	90	180	299	479
6	92	92	184	307	491
7	95	95	190	320	510
8	94	94	189	300	489
9	98	98	196	312	508
10	95	95	190	310	500
11	90	90	180	159	339
12	84	86	170	308	477
13	80	85	165	287	452
14	76	88	165	267	432
15	61	98	159	261	420
16	59	100	159	268	426
17	60	100	160	270	430
18	60	100	160	290	450
19	60	111	171	300	472
20	60	120	180	301	481
21	62	120	182	295	477
22	76	120	196	273	469
23	65	120	185	236	421
24	85	110	194	301	495
25	--	--	--	301	301
26	66	96	162	300	462
27	80	120	200	300	500
28	73	113	186	287	473
29	63	103	166	264	431
30	60	100	160	261	420
Monthly Total	2,213	2,964	5,177	8,547	13,724
Monthly Min	59	0.0	0.0	159	
Monthly Max	100	120	200	320	
Monthly Avg	76	99	173	285	457

NOTES: ' -- ' indicates plant offline

1.2.2 Treated Water Production (ML)

September 2024

Day	Rossdale (Plant 1 & Plant 2)			E.L. Smith			Plants Combined	Reservoir Levels (%)
	Flow Meters			Flow Meters			Flow Meters (Both Plants)	
	Min	Max	Total	Min	Max	Total		
1	83	210	171	205	298	245	416	70.7
2	86	209	172	206	299	252	423	72.0
3	134	209	192	253	302	260	451	69.2
4	73	212	166	222	299	261	427	75.4
5	0.0	212	165	193	301	261	426	74.1
6	95	211	176	207	301	275	451	73.2
7	150	210	182	244	300	283	466	77.4
8	64	213	180	202	301	264	444	81.0
9	133	210	186	246	300	274	460	78.1
10	135	208	183	200	298	269	452	85.1
11	63	208	170	0.0	294	119	289	85.5
12	103	207	160	203	303	268	428	70.6
13	75	206	152	201	294	255	407	74.2
14	77	205	152	201	292	230	381	77.3
15	77	207	145	200	296	225	370	77.7
16	79	209	149	201	293	232	381	70.9
17	79	209	148	202	300	236	384	67.2
18	75	208	150	204	299	251	401	62.8
19	75	211	161	201	298	259	420	62.9
20	87	210	169	244	297	263	432	67.3
21	69	210	170	203	297	256	426	75.5
22	151	208	183	199	289	237	420	84.1
23	115	208	173	0.0	297	195	368	83.2
24	19	208	175	199	294	266	441	82.9
25	13	34	-1.0	251	296	260	259	76.9
26	17	202	125	246	291	272	397	49.3
27	84	249	190	203	294	260	450	58.8
28	128	209	170	226	299	255	425	71.3
29	87	206	153	201	264	228	382	78.3
30	80	204	148	232	293	232	380	78.7
Monthly Tota			4,815			7,441	12,255	
Monthly Min	0.0			0.0				
Monthly Max		249			303			
Monthly Avg			160			248	409	

NOTES: ' -- ' indicates plant offline

- Estimated flows are based on UV effluent flow meters to address inaccuracy of highlift flow meters.
- Reservoir levels (%) recorded daily at 7 AM

1.2.3 Raw Water Quality - North Saskatchewan River

September 2024

Day	Rossdale									E.L. Smith								
	Turbidity (NTU)			pH			Colour (TCU)			Turbidity (NTU)			pH			Colour (TCU)		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	12	23	16	8.3	8.4	8.4	12.5	24.7	19.2	17	24	21	8.4	8.4	8.4	17.9	26.2	23.1
2	17	25	20	8.3	8.4	8.4	19.6	25.0	22.2	19	25	21	8.3	8.4	8.3	19.3	25.4	21.8
3	17	26	20	8.3	8.4	8.4	14.5	19.6	16.4	20	31	26	8.4	8.4	8.4	13.2	19.3	16.0
4	14	22	17	8.1	8.4	8.3	11.2	15.2	12.2	11	27	19	8.4	8.4	8.4	11.0	13.2	12.3
5	12	17	13	8.4	8.5	8.4	9.5	12.0	10.2	8.5	15	13	8.4	8.5	8.4	9.8	11.0	10.2
6	6.2	12	8.7	8.5	8.5	8.5	7.8	9.6	8.7	6.0	8.5	7.8	8.5	8.5	8.5	8.3	9.9	9.0
7	6.2	9.4	7.8	8.4	8.5	8.5	7.1	7.8	7.7	6.0	13	11	8.4	8.5	8.5	7.1	8.5	7.7
8	8.3	10	9.1	8.4	8.4	8.4	6.6	7.1	6.9	9.0	14	12	8.4	8.4	8.4	6.9	7.8	7.2
9	6.1	11	10	8.4	8.4	8.4	6.6	6.7	6.6	10	14	12	8.4	8.4	8.4	6.6	7.1	6.8
10	4.4	7.1	6.5	8.4	8.4	8.4	6.0	6.7	6.1	7.3	11	9.0	8.4	8.5	8.4	6.3	7.0	6.6
11	2.6	4.8	4.0	8.4	8.5	8.4	5.7	6.5	6.0	6.2	7.3	7.0	8.5	8.5	8.5	6.3	6.6	6.5
12	2.6	3.0	2.7	8.4	8.5	8.4	5.3	6.4	5.8	3.7	8.1	5.8	8.5	8.6	8.5	5.4	6.6	6.0
13	2.0	5.1	3.8	8.4	8.5	8.5	5.2	6.4	5.9	2.4	7.0	4.0	8.5	8.5	8.5	5.5	6.3	5.8
14	1.8	2.0	1.9	8.4	8.5	8.4	5.1	5.8	5.4	2.4	4.5	3.0	8.4	8.5	8.5	5.4	5.9	5.7
15	1.8	3.3	2.3	8.4	8.5	8.4	4.3	5.1	5.0	2.5	2.9	2.8	8.4	8.5	8.5	5.2	5.6	5.4
16	2.1	2.5	2.3	8.4	8.5	8.4	4.3	5.5	5.0	2.5	3.0	2.7	8.5	8.5	8.5	5.2	5.6	5.4
17	2.3	2.5	2.4	8.4	8.5	8.4	4.5	5.3	5.0	2.4	3.0	2.7	8.4	8.5	8.4	4.5	5.6	4.9
18	2.3	2.6	2.3	8.4	8.5	8.4	4.5	4.6	4.6	2.5	3.6	3.0	8.4	8.5	8.4	4.5	6.0	5.2
19	2.1	3.0	2.2	8.4	8.5	8.5	4.3	5.4	4.9	3.1	4.3	3.5	8.4	8.5	8.4	4.5	5.5	5.1
20	1.9	3.0	2.3	8.4	8.5	8.4	4.3	4.9	4.6	2.0	4.3	2.7	8.4	8.5	8.4	4.5	5.2	4.8
21	1.9	2.1	2.0	8.4	8.5	8.4	4.5	4.9	4.6	2.0	2.7	2.5	8.4	8.5	8.5	4.2	4.8	4.5
22	1.9	2.1	2.0	8.4	8.5	8.5	4.1	4.6	4.4	2.2	3.6	2.7	8.4	8.5	8.5	4.2	5.1	4.6
23	1.9	2.1	2.0	8.4	8.5	8.4	4.1	4.4	4.2	2.2	5.0	3.1	8.4	8.5	8.5	4.0	4.6	4.4
24	1.9	2.0	1.9	8.4	8.5	8.4	3.6	4.1	3.8	2.2	3.9	2.9	8.3	8.5	8.4	3.7	4.1	4.0
25	2.0	2.0	2.0	8.4	8.4	8.4	3.6	3.6	3.6	2.1	2.5	2.2	8.4	8.5	8.4	3.4	4.1	3.7
26	2.0	5.0	3.4	8.4	8.5	8.4	3.6	4.4	4.1	2.1	12	5.0	8.4	8.5	8.4	3.7	20.0	4.2
27	2.4	5.3	5.2	8.4	8.5	8.4	3.5	4.3	3.8	2.9	5.1	4.3	8.4	8.5	8.4	3.7	4.6	3.9
28	1.9	2.4	2.1	8.4	8.5	8.4	3.9	4.1	4.1	2.5	2.9	2.7	8.4	8.5	8.5	3.9	4.3	4.1
29	1.7	1.9	1.8	8.4	8.5	8.5	3.7	3.9	3.8	2.5	2.9	2.7	8.4	8.5	8.4	3.5	3.9	3.7
30	1.8	1.9	1.9	8.4	8.5	8.4	3.5	3.9	3.8	2.0	3.1	2.5	8.4	8.4	8.4	3.7	4.4	4.2
Monthly Min/Max/Avg	1.7	26	6.0	8.1	8.5	8.4	3.5	25.0	7.0	2.0	31	7.3	8.3	8.6	8.4	3.4	26.2	7.2

NOTES: ' -- ' indicates plant offline

1.2.4 Treated Water Quality Entering the Distribution System

September 2024

Day	Rossdale														E.L. Smith												
	Turbidity (NTU)			Chloramine Residual (mg/L)			pH			Fluoride Residual (mg/L)			Total Hardness (mg/L as $CaCO_3$)	Colour (TCU)	Turbidity (NTU)			Chloramine Residual (mg/L)			pH			Fluoride Residual (mg/L)			Total Hardness (mg/L as $CaCO_3$)	Colour (TCU)
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Total	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Total	Avg
1	0.03	0.04	0.04	2.11	2.21	2.14	7.6	7.7	7.7	0.64	0.66	0.65	170	0.6	0.06	0.06	0.06	2.05	2.20	2.13	7.5	7.6	7.5	0.71	0.72	0.72	174	1.1
2	0.04	0.04	0.04	2.06	2.16	2.14	7.6	7.7	7.7	0.62	0.64	0.64	177	1.0	0.06	0.06	0.06	2.05	2.21	2.12	7.5	7.6	7.6	0.72	0.73	0.72	179	1.6
3	0.04	0.04	0.04	2.11	2.21	2.16	7.7	7.8	7.8	0.63	0.65	0.64	177	0.8	0.06	0.06	0.06	2.04	2.19	2.14	7.6	7.6	7.6	0.72	0.74	0.73	176	1.1
4	0.04	0.04	0.04	2.11	2.32	2.22	7.7	7.9	7.8	0.65	0.67	0.66	176	0.5	0.06	0.07	0.06	2.03	2.22	2.12	7.6	7.6	7.6	0.73	0.75	0.74	180	1.0
5	0.03	0.04	0.04	2.11	2.26	2.17	7.7	7.8	7.8	0.66	0.66	0.66	175	0.6	0.06	0.06	0.06	2.04	2.22	2.13	7.6	7.6	7.6	0.74	0.75	0.75	173	1.1
6	0.04	0.04	0.04	2.16	2.26	2.21	7.7	7.8	7.7	0.66	0.67	0.67	174	0.4	0.06	0.06	0.06	2.03	2.22	2.13	7.6	7.6	7.6	0.74	0.76	0.75	177	1.1
7	0.04	0.04	0.04	2.16	2.36	2.28	7.7	7.8	7.8	0.66	0.67	0.67	175	0.3	0.06	0.06	0.06	1.98	2.19	2.10	7.6	7.6	7.6	0.75	0.76	0.76	173	0.8
8	0.04	0.04	0.04	2.21	2.32	2.27	7.7	7.8	7.7	0.66	0.67	0.66	177	0.3	0.06	0.06	0.06	1.94	2.16	2.07	7.6	7.6	7.6	0.75	0.77	0.76	177	0.6
9	0.04	0.05	0.04	2.21	2.32	2.27	7.7	7.8	7.8	0.65	0.67	0.66	178	0.4	0.06	0.06	0.06	1.95	2.12	2.05	7.6	7.6	7.6	0.74	0.76	0.75	178	0.9
10	0.04	0.04	0.04	2.16	2.26	2.22	7.8	7.8	7.8	0.64	0.65	0.65	179	0.2	0.06	0.06	0.06	1.94	2.14	2.08	7.5	7.6	7.6	0.72	0.75	0.73	181	0.8
11	0.04	0.04	0.04	2.16	2.32	2.26	7.7	7.8	7.8	0.64	0.66	0.65	178	0.3	0.06	0.07	0.07	1.88	2.13	2.01	7.5	7.6	7.5	0.73	0.75	0.75	178	0.9
12	0.04	0.04	0.04	2.21	2.32	2.25	7.8	7.8	7.8	0.64	0.64	0.64	181	0.2	0.06	0.07	0.06	2.01	2.18	2.13	7.5	7.6	7.5	0.72	0.74	0.73	178	0.6
13	0.04	0.04	0.04	2.16	2.26	2.22	7.8	7.8	7.8	0.64	0.65	0.64	178	0.4	0.06	0.06	0.06	2.00	2.22	2.10	7.5	7.5	7.5	0.73	0.74	0.74	175	0.8
14	0.04	0.04	0.04	2.16	2.21	2.21	7.8	7.9	7.8	0.65	0.66	0.65	182	0.3	0.06	0.06	0.06	2.01	2.22	2.13	7.5	7.6	7.6	0.74	0.75	0.75	182	0.6
15	0.04	0.04	0.04	2.16	2.26	2.22	7.8	7.9	7.9	0.65	0.67	0.66	185	0.4	0.06	0.06	0.06	2.03	2.22	2.17	7.6	7.6	7.6	0.75	0.75	0.75	185	0.7
16	0.04	0.04	0.04	2.16	2.26	2.22	7.8	7.9	7.8	0.65	0.66	0.66	182	0.2	0.06	0.06	0.06	2.02	2.22	2.16	7.6	7.6	7.6	0.75	0.76	0.75	184	0.8
17	0.04	0.04	0.04	2.16	2.36	2.27	7.8	7.9	7.8	0.65	0.67	0.66	178	0.6	0.06	0.06	0.06	2.11	2.23	2.20	7.6	7.6	7.6	0.75	0.75	0.75	178	0.8
18	0.04	0.04	0.04	2.26	2.42	2.32	7.9	7.9	7.9	0.65	0.66	0.66	182	0.4	0.06	0.06	0.06	2.18	2.26	2.22	7.6	7.6	7.6	0.75	0.75	0.75	182	0.8
19	0.04	0.04	0.04	2.26	2.42	2.35	7.8	7.9	7.9	0.65	0.66	0.66	180	0.3	0.06	0.06	0.06	2.20	2.27	2.23	7.6	7.6	7.6	0.73	0.75	0.75	178	0.6
20	0.03	0.04	0.03	2.21	2.36	2.31	7.8	7.8	7.8	0.65	0.66	0.65	179	0.3	0.06	0.06	0.06	2.18	2.27	2.22	7.6	7.6	7.6	0.74	0.75	0.75	175	0.7
21	0.03	0.04	0.04	2.16	2.26	2.20	7.8	7.9	7.9	0.65	0.65	0.65	178	0.4	0.06	0.06	0.06	2.18	2.27	2.23	7.6	7.6	7.6	0.74	0.75	0.75	177	0.8
22	0.04	0.04	0.04	2.21	2.32	2.26	7.9	7.9	7.9	0.64	0.65	0.65	178	0.4	0.06	0.06	0.06	2.22	2.28	2.24	7.6	7.6	7.6	0.74	0.75	0.74	176	0.6
23	0.04	0.04	0.04	2.21	2.26	2.26	7.8	7.9	7.9	0.64	0.66	0.65	177	0.3	0.06	0.08	0.06	2.18	2.29	2.08	7.5	7.6	7.6	0.74	0.76	0.75	175	0.6
24	0.04	0.04	0.04	2.21	2.26	2.24	7.8	7.9	7.9	0.64	0.67	0.65	179	0.4	0.06	0.06	0.06	2.18	2.28	2.23	7.5	7.6	7.6	0.74	0.75	0.75	178	0.5
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06	0.06	2.05	2.22	2.18	7.5	7.6	7.6	0.75	0.76	0.75	176	0.8
26	0.04	0.06	0.04	2.01	2.32	2.10	7.8	7.9	7.9	0.66	0.67	0.67	178	0.2	0.06	0.06	0.06	2.12	2.21	2.18	7.5	7.6	7.6	0.75	0.76	0.75	177	0.6
27	0.04	0.04	0.04	2.01	2.16	2.13	7.9	7.9	7.9	0.66	0.67	0.66	178	0.1	0.06	0.08	0.06	2.08	2.21	2.17	7.5	7.6	7.5	0.75	0.75	0.75	174	0.4
28	0.04	0.04	0.04	2.01	2.21	2.14	7.9	7.9	7.9	0.65	0.66	0.65	174	0.5	0.06	0.06	0.06	2.08	2.22	2.17	7.6	7.6	7.6	0.75	0.76	0.75	174	0.5
29	0.04	0.04	0.04	2.11	2.26	2.18	7.9	7.9	7.9	0.65	0.65	0.65	175	0.4	0.06	0.06	0.06	2.10	2.22	2.18	7.6	7.6	7.6	0.75	0.75	0.75	170	0.5
30	0.04	0.04	0.04	2.21	2.32	2.27	7.9	8.0	7.9	0.64	0.66	0.65	174	0.5	0.06	0.06	0.06	2.18	2.22	2.20	7.6	7.6	7.6	0.74	0.75	0.75	175	0.5
Monthly Min/Max/ Avg	0.03	0.06	0.04	2.01	2.42	2.22	7.6	8.0	7.8	0.62	0.67	0.65	178	0.4	0.06	0.08	0.06	1.88	2.29	2.15	7.5	7.6	7.6	0.71	0.77	0.75	177	0.8

NOTES: ' -- ' indicates plant offline

1.2.5 Rossdale Filters 1 - 9 Particle Counts (no./mL >2um)

September 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1	10	4	1	9	4	--	--	--	1	8	4	--	--	--	1	9	4	2	15	7	2	21	6	1	6	4
2	1	4	1	1	34	1	1	12	2	1	2	1	1	22	4	1	2	1	1	4	1	1	4	1	1	7	3
3	1	1	1	1	12	1	1	5	1	1	8	2	1	3	2	2	18	4	1	1	1	1	2	1	1	4	2
4	1	8	3	--	--	--	1	8	2	1	6	3	1	4	2	1	8	3	1	16	6	1	2	1	1	3	2
5	1	6	2	1	10	3	1	8	1	1	5	2	1	4	2	1	4	2	2	7	4	--	--	--	2	6	3
6	1	4	2	1	4	2	2	7	4	3	9	6	--	--	--	1	3	2	1	4	3	2	19	5	1	5	3
7	--	--	--	1	4	1	1	4	2	2	24	5	4	17	7	--	--	--	1	3	2	2	5	3	1	3	2
8	2	9	4	1	8	2	1	2	1	1	24	3	2	6	3	2	24	4	2	17	5	1	4	2	1	3	1
9	1	5	3	1	5	2	--	--	--	--	--	--	1	4	2	1	4	2	1	12	3	1	2	1	1	15	4
10	1	3	1	1	2	1	1	15	2	--	--	--	1	3	1	1	2	1	1	3	2	1	19	3	1	3	1
11	1	2	1	1	2	1	1	3	2	1	5	4	4	17	7	--	--	--	1	2	1	1	4	3	1	3	2
12	--	--	--	1	2	1	1	3	1	1	6	3	2	6	4	2	15	4	3	13	5	1	22	2	1	3	1
13	1	8	3	2	7	3	1	2	1	1	8	2	2	6	3	1	4	2	2	5	3	1	3	1	--	--	--
14	1	5	2	1	13	3	2	7	3	1	3	2	1	5	2	1	3	1	1	4	2	--	--	--	1	32	4
15	1	4	1	1	17	2	1	3	2	--	--	--	3	19	5	1	2	1	1	2	1	1	17	3	1	16	3
16	1	1	1	1	2	1	1	2	1	2	9	3	2	5	3	2	20	4	--	--	--	1	4	2	1	2	1
17	--	--	--	1	11	3	1	2	1	1	44	4	1	5	3	2	5	3	2	24	5	1	3	2	1	11	2
18	7	15	10	1	4	2	1	17	3	1	4	2	1	3	2	1	3	2	2	5	3	--	--	--	1	7	3
19	2	24	5	1	3	1	1	3	1	--	--	--	3	16	5	1	2	1	1	4	1	1	19	3	1	4	2
20	1	13	4	1	2	1	1	2	1	1	30	4	1	6	3	1	15	2	1	1	1	1	4	2	1	7	1
21	1	3	1	1	13	3	1	25	1	1	5	2	1	4	3	1	3	2	2	20	4	1	4	2	1	1	1
22	1	8	2	1	3	2	1	11	4	1	17	4	1	4	1	1	2	1	1	4	2	1	4	1	1	12	2
23	1	6	2	1	4	1	1	6	2	1	15	4	2	13	4	1	20	2	1	3	1	1	17	2	1	3	1
24	1	9	1	1	7	1	1	8	1	1	12	3	1	4	2	1	5	2	1	11	2	1	3	1	1	11	1
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	1	7	4	3	10	6	2	14	6	3	25	6	--	--	--	--	--	--	2	20	5	1	7	3	1	19	3
27	3	11	5	4	16	7	3	18	7	4	10	7	7	23	10	--	--	--	4	7	5	2	8	4	2	8	3
28	1	10	3	2	11	5	6	18	11	4	17	8	3	39	6	5	34	8	1	6	3	1	16	3	1	4	2
29	1	10	2	1	5	3	--	--	--	3	12	5	1	7	3	3	8	5	6	15	9	3	9	5	1	17	4
30	--	--	--	1	3	2	--	--	--	1	20	4	--	--	--	1	5	3	3	7	5	2	6	4	2	7	4
Monthly Min/Max/Avg	1	24	3	1	34	2	1	25	3	1	44	4	1	39	4	1	34	3	1	24	3	1	22	3	1	32	2

NOTE: ' -- ' indicates filter offline

1.2.6 E.L. Smith Filters 1 - 9 Particle Counts (no./mL >2um)

September 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1	18	8	2	19	6	2	21	9	1	13	6	1	10	5	2	21	10	5	36	12	5	31	13	1	10	5
2	1	25	2	1	10	5	1	10	2	1	22	6	4	22	11	1	4	2	3	7	5	1	7	5	3	19	9
3	3	17	9	1	23	5	5	18	11	2	8	5	1	6	3	3	22	9	8	29	15	9	34	18	2	6	3
4	2	26	8	2	15	7	1	11	4	2	24	13	5	23	13	1	6	2	3	29	6	2	13	8	5	21	10
5	4	17	10	1	23	4	7	23	12	3	11	7	2	9	4	5	27	10	7	25	14	18	26	22	2	15	4
6	2	34	11	6	22	12	2	11	6	2	25	9	9	30	17	2	7	4	4	36	12	7	23	15	7	24	15
7	4	16	10	1	10	4	1	24	9	4	12	7	3	12	7	8	28	14	6	18	11	4	25	7	3	10	5
8	2	7	4	1	22	10	3	12	7	1	5	3	7	24	12	2	11	5	4	31	13	6	28	15	6	22	14
9	6	20	13	2	14	6	1	9	3	4	17	9	2	10	6	2	25	10	4	17	10	3	25	9	2	9	5
10	3	24	7	1	22	5	5	18	10	2	7	4	1	20	8	3	11	7	3	26	15	5	19	11	4	27	10
11	8	24	15	6	34	11	5	32	13	--	--	--	8	40	12	2	6	4	6	18	12	5	27	19	3	22	12
12	4	15	8	3	12	6	5	17	8	6	17	9	11	23	15	5	23	10	6	23	13	5	19	9	3	20	7
13	3	24	13	7	20	13	2	7	4	2	8	5	4	14	9	3	7	5	4	24	10	5	24	11	3	18	8
14	3	13	7	3	11	6	4	19	9	6	20	11	2	20	6	5	25	10	3	21	9	3	8	4	3	27	9
15	1	5	3	7	19	10	1	10	3	3	10	5	4	14	7	1	7	3	3	28	12	4	22	8	2	8	4
16	5	15	10	2	11	6	5	15	10	2	18	8	2	8	4	5	24	11	3	13	6	4	27	14	3	24	9
17	2	9	5	9	18	12	2	36	5	3	9	6	5	15	9	2	7	4	7	26	15	4	9	6	2	22	10
18	2	24	11	4	12	7	2	19	7	1	5	3	2	10	5	6	29	13	3	27	8	4	23	10	3	13	5
19	3	13	8	1	24	4	3	13	8	4	16	9	4	17	10	2	8	5	3	18	10	3	24	11	3	25	12
20	2	24	10	1	15	10	2	19	5	2	6	4	2	24	5	5	29	11	5	29	11	3	12	7	3	25	12
21	4	15	8	2	9	5	4	15	8	1	15	7	1	20	5	2	7	3	3	29	12	4	23	10	2	28	6
22	2	20	4	1	8	2	1	11	4	2	8	5	4	15	9	5	29	11	3	28	7	2	25	9	2	15	8
23	4	26	9	3	19	7	4	18	9	2	17	7	2	7	4	3	7	5	3	14	9	3	32	8	5	28	12
24	1	7	4	1	6	3	1	8	4	2	7	4	1	22	6	2	20	6	3	29	10	3	25	8	3	21	8
25	1	21	9	1	16	7	1	14	4	1	9	2	2	7	3	1	5	3	3	26	8	3	23	7	3	8	5
26	3	9	6	2	8	4	3	12	6	5	17	9	4	14	8	3	23	9	3	13	8	3	15	9	5	23	12
27	2	23	14	2	30	14	2	6	4	3	8	5	2	10	5	3	34	13	5	26	13	6	24	13	4	7	5
28	2	11	6	2	11	6	4	19	9	1	20	5	6	25	13	3	12	6	3	7	5	3	26	6	5	21	10
29	2	34	12	1	5	3	1	9	4	3	11	7	2	11	6	1	28	3	4	25	11	5	17	9	3	25	8
30	2	9	6	3	15	8	1	22	7	2	5	3	1	22	5	3	16	8	3	31	10	2	6	4	4	12	8
Monthly Min/Max/Avg	1	34	8	1	34	7	1	36	7	1	25	6	1	40	8	1	34	7	3	36	10	1	34	10	1	28	8

NOTES: ' -- ' indicates filter offline

1.2.7 E.L. Smith Filters 10 - 18 Particle Counts (no./mL >2um)

September 2024

Filter	10			11			12			13			14			15			16			17			18		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	3	24	11	2	24	8	2	23	9	2	19	8	3	27	11	4	10	6	1	14	6	4	11	6	3	31	10
2	2	10	6	2	12	7	1	28	13	1	27	6	1	24	5	3	15	8	1	30	10	4	15	10	5	26	13
3	2	28	12	2	33	14	2	7	4	4	14	7	5	39	9	2	24	4	2	9	5	2	7	4	3	10	5
4	4	18	9	3	13	7	4	26	12	4	36	17	3	33	13	4	18	9	8	34	16	4	23	11	7	27	14
5	2	31	15	8	26	15	4	29	15	4	14	9	5	17	11	2	28	9	3	12	7	2	7	4	3	10	6
6	5	19	11	3	11	6	3	13	7	4	37	16	4	8	6	5	16	10	3	30	16	6	28	15	8	33	17
7	3	31	11	10	30	19	10	29	18	4	14	9	8	27	15	3	25	7	5	18	11	2	9	6	4	11	7
8	4	19	12	3	15	7	2	13	6	2	28	8	3	11	6	5	20	10	3	22	5	5	23	13	2	31	12
9	3	22	7	9	29	17	7	32	16	4	42	11	7	27	15	3	28	8	4	22	11	2	9	5	3	12	7
10	5	20	11	3	26	8	2	26	4	2	7	4	2	10	5	3	13	8	2	7	3	5	21	11	2	27	11
11	5	30	15	6	19	12	7	25	14	8	29	15	15	34	22	3	23	13	--	--	--	3	8	6	5	13	9
12	4	16	7	5	23	12	4	22	10	3	13	6	3	18	8	3	23	8	3	25	8	4	20	10	8	28	13
13	6	23	12	4	28	13	3	13	7	5	31	11	5	25	12	3	15	7	6	24	13	4	29	13	4	11	7
14	2	9	4	2	13	6	3	25	10	1	8	4	2	31	8	3	25	12	1	9	4	1	14	6	4	25	10
15	4	20	9	4	22	8	3	28	7	4	26	8	2	13	5	2	10	5	1	20	10	1	18	8	2	6	4
16	2	7	4	3	28	9	4	18	8	2	23	7	2	23	13	6	22	13	2	9	4	3	20	6	3	21	10
17	4	23	10	2	12	6	4	29	12	3	15	8	3	33	11	3	9	5	6	23	12	2	16	8	2	23	5
18	2	22	7	3	22	9	3	31	11	2	20	10	2	14	7	4	21	10	2	25	5	2	26	12	3	16	8
19	2	15	8	3	27	11	3	34	7	2	28	7	3	27	13	2	24	9	2	18	9	2	21	6	2	43	10
20	5	22	11	3	29	11	4	15	8	2	12	6	2	36	14	3	27	8	5	20	11	3	13	6	3	31	7
21	2	35	9	2	14	6	4	33	9	2	28	12	3	17	7	3	22	9	1	26	7	4	19	10	3	15	7
22	2	9	5	3	28	8	6	29	14	2	8	5	4	24	12	2	29	12	2	12	6	2	20	4	2	31	13
23	5	27	12	3	28	12	4	27	8	5	24	12	2	7	4	2	10	5	1	21	10	5	15	9	2	11	6
24	3	16	6	2	18	5	2	13	5	2	8	4	4	18	9	4	16	8	2	6	4	2	7	4	2	21	9
25	3	11	8	3	9	5	5	25	12	6	17	11	2	36	13	2	30	10	4	34	8	6	19	12	3	21	6
26	3	33	12	4	20	10	5	30	11	4	19	6	3	12	8	3	12	7	2	20	7	3	20	9	3	19	11
27	3	19	6	7	34	17	4	32	8	5	35	11	5	25	13	6	26	16	3	14	9	3	13	8	3	28	9
28	5	28	12	4	10	5	3	15	8	2	7	5	3	35	13	3	9	6	3	34	12	3	31	14	4	12	8
29	2	22	5	6	22	13	3	35	11	5	20	11	4	37	8	7	25	14	2	9	5	2	9	5	2	6	4
30	5	24	12	3	8	5	4	11	7	2	26	6	2	27	11	2	9	6	7	24	13	6	27	14	4	34	10
Monthly Min/Max/Avg	2	35	9	2	34	10	1	35	10	1	42	9	1	39	10	2	30	9	1	34	8	1	31	8	2	43	9

NOTES: ' -- ' indicates filter offline

1.2.8 Rossdale Filters 1 - 9 Turbidity (NTU)

September 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	0.02	0.04	0.02	0.03	0.04	0.03	--	--	--	0.01	0.04	0.01	--	--	--	0.01	0.02	0.01	0.03	0.04	0.03	0.02	0.05	0.03	0.02	0.02	0.02
2	0.02	0.05	0.02	0.02	0.03	0.02	0.01	0.06	0.02	0.01	0.03	0.02	0.02	0.06	0.03	0.01	0.04	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.05	0.04
3	0.02	0.02	0.02	0.02	0.04	0.02	0.01	0.05	0.01	0.01	0.04	0.01	0.02	0.04	0.02	0.01	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02
4	0.02	0.05	0.03	--	--	--	0.01	0.01	0.01	0.01	0.03	0.01	0.02	0.05	0.03	0.01	0.02	0.01	0.02	0.06	0.04	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.05	0.03	0.01	0.04	0.01	0.01	0.03	0.01	0.02	0.04	0.02	0.01	0.02	0.01	0.02	0.03	0.03	--	--	--	0.02	0.06	0.03
6	0.02	0.02	0.02	0.02	0.03	0.03	0.01	0.04	0.02	0.03	0.04	0.04	--	--	--	0.01	0.04	0.01	0.02	0.03	0.02	0.02	0.05	0.03	0.02	0.02	0.02
7	--	--	--	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.03	0.01	0.03	0.05	0.03	--	--	--	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.05	0.03	0.02	0.05	0.03	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.04	0.03	0.01	0.05	0.02	0.03	0.05	0.03	0.02	0.02	0.02	0.01	0.02	0.02
9	0.02	0.03	0.02	0.03	0.03	0.03	--	--	--	--	--	--	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.05	0.03
10	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.03	0.02	--	--	--	0.02	0.03	0.02	0.01	0.03	0.01	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.02	0.02
11	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.04	0.02	0.03	0.05	0.04	--	--	--	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.02
12	--	--	--	0.02	0.04	0.02	0.01	0.01	0.01	0.01	0.03	0.01	0.02	0.03	0.03	0.01	0.05	0.02	0.03	0.05	0.03	0.02	0.02	0.02	0.02	0.02	0.02
13	0.02	0.06	0.02	0.03	0.05	0.03	0.01	0.01	0.01	0.01	0.05	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.02	0.02	--	--	--
14	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.04	0.02	0.01	0.02	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.02	0.02	--	--	--	0.02	0.05	0.02
15	0.02	0.03	0.02	0.02	0.03	0.02	0.01	0.02	0.01	--	--	--	0.03	0.05	0.03	0.01	0.03	0.01	0.02	0.04	0.02	0.02	0.05	0.02	0.02	0.02	0.02
16	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.03	0.02	0.02	0.05	0.02	0.01	0.05	0.02	--	--	--	0.01	0.02	0.02	0.01	0.02	0.02
17	--	--	--	0.03	0.05	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.05	0.03	0.01	0.02	0.02	0.01	0.05	0.02
18	0.05	0.05	0.05	0.02	0.03	0.03	0.02	0.04	0.02	0.01	0.03	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.02	0.02	--	--	--	0.02	0.03	0.02
19	0.02	0.05	0.02	0.02	0.04	0.02	0.01	0.02	0.01	--	--	--	0.03	0.05	0.03	0.01	0.04	0.01	0.02	0.03	0.02	0.02	0.05	0.02	0.02	0.02	0.02
20	0.02	0.03	0.02	0.02	0.04	0.02	0.01	0.01	0.01	0.01	0.04	0.02	0.02	0.04	0.02	0.01	0.05	0.01	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.02	0.02
21	0.02	0.04	0.02	0.03	0.05	0.03	0.01	0.04	0.01	0.01	0.03	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.05	0.03	0.01	0.02	0.02	0.01	0.02	0.02
22	0.02	0.05	0.03	0.02	0.03	0.02	0.01	0.03	0.02	0.00	0.03	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.04	0.02
23	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.04	0.01	0.02	0.05	0.03	0.01	0.05	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.02	0.02
24	0.01	0.04	0.02	0.02	0.04	0.03	0.01	0.03	0.01	0.01	0.03	0.02	0.02	0.04	0.02	0.01	0.03	0.02	0.02	0.05	0.03	0.02	0.02	0.02	0.02	0.04	0.02
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	0.02	0.03	0.02	0.02	0.05	0.03	0.01	0.02	0.02	0.01	0.04	0.02	--	--	--	--	--	--	0.02	0.04	0.03	0.02	0.03	0.02	0.02	0.03	0.02
27	0.02	0.02	0.02	0.02	0.05	0.03	0.01	0.01	0.01	0.01	0.03	0.01	0.03	0.05	0.03	--	--	--	0.02	0.03	0.02	0.01	0.02	0.02	0.01	0.02	0.02
28	0.02	0.04	0.02	0.02	0.04	0.03	0.01	0.02	0.01	0.01	0.05	0.02	0.02	0.04	0.02	0.01	0.05	0.02	0.02	0.04	0.02	0.01	0.05	0.02	0.01	0.02	0.02
29	0.02	0.03	0.02	0.02	0.03	0.02	--	--	--	0.01	0.03	0.01	0.02	0.04	0.02	0.01	0.01	0.01	0.04	0.04	0.04	0.02	0.04	0.02	0.01	0.05	0.02
30	--	--	--	0.02	0.02	0.02	--	--	--	0.00	0.04	0.01	--	--	--	0.01	0.01	0.01	0.03	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Monthly Min/Max/Avg	0.01	0.06	0.02	0.02	0.05	0.03	0.01	0.06	0.01	0.00	0.05	0.01	0.02	0.06	0.03	0.01	0.05	0.01	0.02	0.06	0.03	0.01	0.05	0.02	0.01	0.06	0.02

NOTES: ' -- ' indicates filter offline

1.2.9 E.L. Smith Filters 1 - 9 Turbidity (NTU)

September 2024

Filter	1			2			3			4			5			6			7			8			9		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	0.01	0.02	0.02	0.03	0.08	0.03	0.01	0.06	0.02	0.03	0.03	0.03	0.00	0.01	0.01	0.03	0.08	0.04	0.01	0.06	0.01	0.03	0.08	0.03	0.00	0.01	0.00
2	0.01	0.05	0.01	0.03	0.03	0.03	0.01	0.02	0.01	0.03	0.07	0.03	0.01	0.05	0.01	0.03	0.03	0.03	0.00	0.01	0.01	0.02	0.03	0.02	0.00	0.05	0.01
3	0.01	0.04	0.02	0.02	0.06	0.03	0.01	0.04	0.01	0.03	0.03	0.03	0.00	0.01	0.01	0.03	0.07	0.03	0.01	0.05	0.01	0.03	0.06	0.03	0.00	0.00	0.00
4	0.01	0.04	0.02	0.03	0.03	0.03	0.01	0.03	0.01	0.03	0.06	0.04	0.01	0.04	0.01	0.03	0.03	0.03	0.01	0.04	0.01	0.02	0.03	0.02	0.01	0.05	0.01
5	0.01	0.02	0.02	0.02	0.07	0.03	0.01	0.04	0.01	0.03	0.03	0.03	0.01	0.01	0.01	0.03	0.07	0.03	0.01	0.04	0.01	0.04	0.06	0.05	0.01	0.01	0.01
6	0.01	0.05	0.02	0.03	0.05	0.03	0.01	0.01	0.01	0.03	0.06	0.03	0.01	0.04	0.01	0.03	0.05	0.03	0.01	0.05	0.01	0.02	0.04	0.03	0.01	0.05	0.01
7	0.01	0.02	0.02	0.02	0.03	0.03	0.00	0.04	0.01	0.02	0.03	0.03	0.00	0.01	0.01	0.03	0.07	0.04	0.00	0.01	0.01	0.02	0.06	0.02	0.00	0.01	0.00
8	0.01	0.02	0.01	0.02	0.07	0.03	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.04	0.01	0.03	0.03	0.03	0.00	0.05	0.02	0.03	0.06	0.03	0.01	0.05	0.02
9	0.02	0.05	0.02	0.02	0.03	0.03	0.01	0.01	0.01	0.03	0.06	0.04	0.00	0.01	0.01	0.03	0.07	0.04	0.00	0.01	0.01	0.02	0.06	0.03	0.00	0.01	0.00
10	0.01	0.05	0.02	0.02	0.07	0.03	0.01	0.04	0.01	0.03	0.03	0.03	0.00	0.03	0.01	0.03	0.03	0.03	0.00	0.05	0.02	0.02	0.04	0.03	0.00	0.04	0.01
11	0.02	0.03	0.02	0.03	0.04	0.03	0.01	0.05	0.02	--	--	--	0.01	0.03	0.01	0.03	0.03	0.03	0.01	0.02	0.01	0.02	0.06	0.04	0.00	0.04	0.02
12	0.01	0.02	0.01	0.02	0.03	0.03	0.01	0.02	0.01	0.03	0.06	0.03	0.01	0.03	0.01	0.03	0.07	0.04	0.01	0.04	0.01	0.02	0.04	0.03	0.00	0.04	0.01
13	0.01	0.05	0.02	0.03	0.07	0.03	0.01	0.01	0.01	0.03	0.03	0.03	0.00	0.01	0.01	0.03	0.03	0.03	0.00	0.04	0.01	0.02	0.06	0.03	0.00	0.03	0.01
14	0.01	0.02	0.01	0.02	0.03	0.03	0.01	0.03	0.01	0.03	0.05	0.03	0.00	0.03	0.01	0.03	0.07	0.03	0.00	0.02	0.01	0.02	0.02	0.02	0.00	0.04	0.01
15	0.01	0.01	0.01	0.03	0.06	0.03	0.00	0.02	0.01	0.02	0.03	0.02	0.00	0.01	0.01	0.03	0.04	0.03	0.00	0.04	0.01	0.02	0.05	0.03	0.01	0.00	0.00
16	0.01	0.04	0.02	0.03	0.05	0.03	0.01	0.03	0.01	0.03	0.06	0.03	0.00	0.00	0.00	0.03	0.07	0.04	0.00	0.01	0.01	0.02	0.05	0.03	0.00	0.04	0.01
17	0.01	0.01	0.01	0.03	0.06	0.04	0.01	0.05	0.01	0.02	0.03	0.03	0.00	0.03	0.01	0.03	0.03	0.03	0.01	0.04	0.02	0.02	0.02	0.02	0.01	0.04	0.01
18	0.01	0.04	0.02	0.03	0.03	0.03	0.01	0.03	0.01	0.03	0.03	0.03	0.00	0.01	0.00	0.03	0.07	0.04	0.00	0.04	0.01	0.02	0.06	0.03	0.01	0.01	0.00
19	0.01	0.02	0.01	0.02	0.03	0.02	0.00	0.01	0.01	0.03	0.06	0.03	0.00	0.03	0.01	0.03	0.03	0.03	0.00	0.02	0.01	0.02	0.06	0.03	0.00	0.04	0.01
20	0.01	0.04	0.02	0.02	0.07	0.03	0.01	0.04	0.01	0.03	0.03	0.03	0.01	0.01	0.01	0.03	0.07	0.03	0.01	0.04	0.01	0.02	0.03	0.02	0.01	0.04	0.01
21	0.01	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.01	0.02	0.06	0.03	0.00	0.03	0.01	0.03	0.03	0.03	0.00	0.04	0.01	0.02	0.06	0.03	0.01	0.04	0.01
22	0.01	0.01	0.01	0.02	0.02	0.02	0.00	0.01	0.01	0.01	0.03	0.03	0.00	0.01	0.01	0.03	0.07	0.03	0.01	0.04	0.01	0.02	0.05	0.03	0.01	0.01	0.01
23	0.01	0.04	0.02	0.02	0.05	0.03	0.01	0.04	0.01	0.03	0.05	0.03	0.00	0.00	0.00	0.03	0.03	0.03	0.00	0.01	0.01	0.02	0.05	0.02	0.00	0.04	0.01
24	0.01	0.01	0.01	0.02	0.03	0.02	0.01	0.02	0.01	0.03	0.03	0.03	0.01	0.03	0.01	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.05	0.03	0.01	0.04	0.01
25	0.01	0.04	0.01	0.02	0.06	0.03	0.00	0.03	0.01	0.03	0.03	0.03	0.01	0.01	0.01	0.03	0.03	0.03	0.01	0.03	0.01	0.02	0.05	0.02	0.01	0.01	0.01
26	0.01	0.01	0.01	0.02	0.03	0.02	0.01	0.02	0.01	0.01	0.05	0.02	0.01	0.03	0.01	0.03	0.07	0.03	0.01	0.01	0.01	0.02	0.03	0.02	0.01	0.01	0.01
27	0.01	0.04	0.02	0.02	0.06	0.03	0.00	0.01	0.00	0.02	0.03	0.03	0.00	0.00	0.00	0.03	0.06	0.03	0.00	0.04	0.01	0.02	0.05	0.03	0.01	0.01	0.01
28	0.01	0.01	0.01	0.02	0.03	0.02	0.00	0.03	0.01	0.02	0.05	0.03	0.00	0.03	0.01	0.03	0.03	0.03	0.01	0.00	0.00	0.02	0.05	0.02	0.01	0.04	0.01
29	0.01	0.04	0.02	0.02	0.02	0.02	0.00	0.01	0.00	0.03	0.05	0.03	0.00	0.00	0.00	0.02	0.07	0.03	0.00	0.04	0.01	0.02	0.04	0.02	0.01	0.04	0.01
30	0.01	0.01	0.01	0.02	0.06	0.03	0.00	0.04	0.01	0.03	0.03	0.03	0.00	0.03	0.01	0.03	0.05	0.03	0.01	0.04	0.01	0.02	0.02	0.02	0.01	0.01	0.00
Monthly Min/Max/Avg	0.01	0.05	0.02	0.02	0.08	0.03	0.00	0.06	0.01	0.01	0.07	0.03	0.00	0.05	0.01	0.02	0.08	0.03	0.01	0.06	0.01	0.02	0.08	0.03	0.01	0.05	0.01

NOTES: ' -- ' indicates filter offline

1.2.10 E.L. Smith Filters 10 - 18 Turbidity (NTU)

September 2024

Filter	10			11			12			13			14			15			16			17			18		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	0.02	0.07	0.04	0.01	0.06	0.01	0.01	0.04	0.02	0.03	0.04	0.04	0.03	0.08	0.04	0.04	0.04	0.04	0.03	0.05	0.04	0.04	0.04	0.04	0.03	0.07	0.03
2	0.02	0.03	0.03	0.01	0.03	0.01	0.01	0.06	0.02	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.08	0.05	0.03	0.07	0.04	0.04	0.08	0.05	0.03	0.06	0.03
3	0.02	0.06	0.03	0.01	0.05	0.01	0.01	0.01	0.01	0.03	0.04	0.03	0.03	0.04	0.04	0.04	0.07	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03
4	0.02	0.03	0.03	0.01	0.02	0.01	0.01	0.05	0.02	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.06	0.05	0.04	0.07	0.05	0.04	0.08	0.04	0.03	0.06	0.03
5	0.02	0.06	0.03	0.01	0.05	0.01	0.01	0.05	0.02	0.03	0.04	0.03	0.03	0.04	0.04	0.04	0.08	0.05	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.03	0.03
6	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.06	0.04	0.03	0.03	0.03	0.04	0.05	0.05	0.04	0.08	0.05	0.04	0.08	0.05	0.03	0.07	0.04
7	0.02	0.07	0.03	0.01	0.05	0.02	0.02	0.06	0.03	0.03	0.04	0.04	0.04	0.08	0.04	0.04	0.08	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03
8	0.03	0.05	0.03	0.01	0.02	0.01	0.01	0.02	0.01	0.03	0.07	0.04	0.03	0.04	0.04	0.04	0.06	0.05	0.04	0.08	0.04	0.04	0.08	0.05	0.03	0.07	0.04
9	0.03	0.06	0.03	0.01	0.04	0.02	0.01	0.06	0.02	0.03	0.05	0.04	0.04	0.08	0.05	0.04	0.08	0.05	0.04	0.07	0.05	0.04	0.04	0.04	0.03	0.04	0.03
10	0.03	0.05	0.03	0.01	0.04	0.01	0.01	0.05	0.01	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.03	0.04	0.04	0.04	0.08	0.05	0.03	0.06	0.04
11	0.03	0.06	0.04	0.00	0.03	0.01	0.01	0.05	0.02	0.04	0.07	0.05	0.05	0.08	0.06	0.04	0.08	0.05	--	--	--	0.04	0.04	0.04	0.03	0.03	0.03
12	0.02	0.04	0.03	0.00	0.04	0.01	0.01	0.05	0.02	0.03	0.04	0.03	0.03	0.05	0.04	0.04	0.07	0.04	0.04	0.08	0.04	0.04	0.08	0.04	0.03	0.06	0.04
13	0.03	0.06	0.03	0.00	0.05	0.01	0.01	0.02	0.01	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.05	0.04	0.04	0.07	0.05	0.04	0.08	0.05	0.03	0.03	0.03
14	0.02	0.03	0.02	0.01	0.01	0.00	0.01	0.05	0.02	0.03	0.03	0.03	0.03	0.07	0.04	0.04	0.07	0.05	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.06	0.03
15	0.03	0.05	0.03	0.01	0.04	0.01	0.01	0.04	0.01	0.03	0.07	0.04	0.03	0.04	0.03	0.04	0.05	0.04	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.03	0.03
16	0.02	0.03	0.02	0.01	0.04	0.01	0.01	0.02	0.01	0.03	0.06	0.04	0.03	0.07	0.04	0.04	0.08	0.05	0.03	0.04	0.04	0.04	0.08	0.04	0.03	0.06	0.03
17	0.02	0.06	0.03	0.01	0.01	0.00	0.01	0.05	0.02	0.03	0.04	0.04	0.03	0.07	0.04	0.04	0.04	0.04	0.04	0.07	0.05	0.04	0.06	0.04	0.03	0.06	0.03
18	0.02	0.06	0.03	0.01	0.04	0.01	0.01	0.05	0.02	0.03	0.07	0.04	0.03	0.04	0.03	0.04	0.07	0.05	0.04	0.07	0.04	0.04	0.08	0.05	0.03	0.04	0.03
19	0.02	0.04	0.03	0.01	0.05	0.01	0.00	0.05	0.01	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.07	0.04	0.03	0.06	0.04	0.03	0.08	0.04	0.03	0.06	0.03
20	0.02	0.06	0.03	0.01	0.04	0.01	0.01	0.02	0.01	0.03	0.04	0.03	0.03	0.07	0.04	0.04	0.08	0.04	0.04	0.07	0.05	0.04	0.05	0.04	0.03	0.06	0.03
21	0.02	0.06	0.03	0.01	0.01	0.00	0.01	0.05	0.02	0.03	0.07	0.04	0.03	0.04	0.04	0.04	0.06	0.04	0.03	0.07	0.04	0.04	0.08	0.04	0.03	0.04	0.03
22	0.02	0.03	0.02	0.01	0.05	0.01	0.01	0.05	0.02	0.03	0.03	0.03	0.03	0.07	0.04	0.04	0.07	0.05	0.03	0.04	0.04	0.03	0.07	0.04	0.03	0.06	0.03
23	0.03	0.05	0.04	0.01	0.06	0.01	0.01	0.04	0.01	0.03	0.07	0.04	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.07	0.04	0.04	0.05	0.04	0.02	0.03	0.03
24	0.02	0.05	0.03	0.01	0.03	0.01	0.01	0.02	0.01	0.03	0.03	0.03	0.03	0.06	0.04	0.04	0.07	0.04	0.03	0.04	0.04	0.03	0.04	0.04	0.02	0.05	0.03
25	0.02	0.04	0.03	0.01	0.02	0.01	0.01	0.04	0.01	0.03	0.06	0.04	0.03	0.07	0.04	0.04	0.08	0.04	0.04	0.07	0.04	0.04	0.07	0.04	0.02	0.03	0.03
26	0.02	0.05	0.03	0.01	0.04	0.01	0.01	0.04	0.02	0.03	0.06	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.03	0.07	0.04	0.04	0.07	0.04	0.02	0.06	0.03
27	0.02	0.03	0.02	0.00	0.04	0.01	0.01	0.04	0.01	0.03	0.06	0.04	0.03	0.07	0.04	0.04	0.08	0.05	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.06	0.03
28	0.03	0.07	0.03	0.01	0.00	0.01	0.00	0.02	0.01	0.03	0.03	0.03	0.03	0.07	0.04	0.04	0.04	0.04	0.03	0.07	0.04	0.03	0.08	0.05	0.03	0.03	0.03
29	0.02	0.03	0.02	0.00	0.04	0.01	0.00	0.04	0.01	0.03	0.06	0.04	0.03	0.04	0.03	0.04	0.07	0.05	0.03	0.04	0.04	0.03	0.04	0.04	0.02	0.03	0.03
30	0.03	0.06	0.04	0.01	0.00	0.01	0.00	0.01	0.01	0.03	0.07	0.03	0.03	0.07	0.04	0.04	0.04	0.04	0.04	0.07	0.05	0.04	0.07	0.05	0.03	0.06	0.03
Monthly Min/Max/Avg	0.02	0.07	0.03	0.01	0.06	0.01	0.00	0.06	0.01	0.03	0.07	0.04	0.03	0.08	0.04	0.04	0.08	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.02	0.07	0.03

NOTES: ' -- ' indicates filter offline

1.2.11 Combined Filter Effluent Water Quality

September 2024

Day	Rossdale						E.L. Smith					
	Particle Counts (no./mL,>2um)			Turbidity (NTU)			Particle Counts (no./mL,>2um)			Turbidity (NTU)		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	2	9	5	0.04	0.05	0.04	4	13	8	0.02	0.03	0.03
2	1	4	1	0.04	0.04	0.04	4	11	7	0.02	0.03	0.02
3	1	4	1	0.04	0.04	0.04	4	12	8	0.02	0.03	0.02
4	1	10	3	0.04	0.05	0.04	8	12	9	0.02	0.03	0.02
5	2	4	3	0.04	0.04	0.04	7	12	9	0.02	0.03	0.03
6	2	4	3	0.04	0.04	0.04	9	14	11	0.02	0.03	0.02
7	2	7	3	0.04	0.04	0.04	7	11	9	0.02	0.03	0.03
8	2	13	3	0.04	0.04	0.04	7	11	9	0.02	0.03	0.03
9	2	4	2	0.04	0.04	0.04	7	12	9	0.02	0.03	0.03
10	1	4	2	0.04	0.04	0.04	6	11	8	0.02	0.03	0.03
11	1	9	2	0.04	0.04	0.04	1	19	6	0.04	0.04	0.04
12	2	7	3	0.04	0.04	0.04	7	13	9	0.02	0.03	0.03
13	2	5	3	0.04	0.04	0.04	7	13	9	0.02	0.03	0.03
14	2	7	2	0.04	0.04	0.04	6	9	7	0.02	0.02	0.02
15	1	6	2	0.04	0.04	0.04	5	8	7	0.02	0.03	0.02
16	1	5	2	0.04	0.04	0.04	6	11	8	0.02	0.03	0.02
17	2	11	3	0.04	0.04	0.04	6	11	8	0.02	0.03	0.02
18	2	4	2	0.04	0.04	0.04	6	11	8	0.02	0.03	0.02
19	1	5	2	0.04	0.04	0.04	7	11	8	0.02	0.03	0.02
20	1	5	2	0.04	0.04	0.04	6	11	8	0.02	0.03	0.03
21	1	5	2	0.04	0.04	0.04	6	11	8	0.02	0.03	0.02
22	1	4	2	0.04	0.04	0.04	6	10	7	0.02	0.02	0.02
23	1	25	2	0.04	0.04	0.04	1	14	7	0.02	0.03	0.02
24	1	3	2	0.04	0.04	0.04	4	8	6	0.02	0.02	0.02
25	--	--	--	--	--	--	4	11	7	0.02	0.03	0.02
26	1	19	4	0.04	0.06	0.04	6	13	8	0.01	0.03	0.02
27	4	8	6	0.04	0.04	0.04	6	16	10	0.02	0.03	0.02
28	2	12	5	0.04	0.04	0.04	6	11	8	0.02	0.02	0.02
29	3	6	4	0.04	0.04	0.04	5	12	8	0.02	0.03	0.02
30	3	6	4	0.04	0.04	0.04	5	11	8	0.02	0.03	0.02
Monthly Min/Max/Avg	1	25	3	0.04	0.06	0.04	1	19	8	0.01	0.04	0.02

NOTES: ' -- ' indicates plant offline

1.2.12 Rossdale UV Disinfection - Filters 1 - 3

September 2024

Filter	1						2						3						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	34.9	36.0	35.5	25.5	28.8	27.1	34.6	36.3	35.5	29.6	32.6	31.3	--	--	--	--	--	--	91.3	92.8	92.3
2	34.8	36.0	35.5	20.8	25.6	22.9	34.8	36.3	35.5	24.7	29.7	27.2	34.5	36.6	35.5	27.1	32.5	30.7	90.5	92.0	91.2
3	35.0	37.2	35.7	15.5	21.1	3.6	34.8	46.0	35.5	14.7	25.0	12.7	34.2	36.7	35.5	25.6	29.7	27.7	92.0	93.2	92.5
4	35.7	36.2	35.5	19.9	29.4	24.5	--	--	--	--	--	--	35.4	36.6	35.5	21.0	26.7	23.4	92.2	93.3	92.4
5	34.8	36.0	35.5	26.2	30.5	27.6	34.7	36.3	35.5	25.3	34.0	24.6	34.7	40.4	35.6	16.1	25.6	3.9	92.4	94.2	93.4
6	34.8	36.7	35.5	22.0	28.3	26.3	34.9	36.4	35.5	27.9	31.7	30.0	34.3	36.6	35.5	25.0	31.8	28.5	93.8	94.4	94.0
7	--	--	--	--	--	--	34.8	36.5	35.6	26.2	30.1	28.1	33.7	36.7	35.5	26.7	32.2	29.9	92.5	94.4	94.1
8	35.0	36.1	35.6	30.1	34.2	12.2	35.0	44.4	35.7	19.1	36.9	8.0	34.0	42.3	35.5	17.4	27.9	19.3	92.5	94.8	94.3
9	34.9	36.2	35.6	28.3	34.4	31.9	34.9	36.1	35.5	30.2	37.0	35.5	--	--	--	--	--	--	94.1	94.9	94.6
10	35.0	36.2	35.6	21.5	28.4	24.7	35.2	39.3	36.4	23.3	30.2	26.6	34.9	36.3	35.6	24.0	28.5	25.0	94.1	95.1	95.0
11	35.5	38.1	37.2	11.9	22.8	14.3	36.8	42.0	39.5	20.9	24.8	22.8	34.6	36.8	35.6	22.8	27.3	24.4	94.4	95.4	95.1
12	--	--	--	--	--	--	37.2	39.4	38.8	12.2	22.7	1.7	34.7	38.7	36.1	18.5	26.8	22.1	94.2	94.5	94.4
13	34.9	36.3	35.6	24.5	28.7	27.3	35.0	36.2	35.6	29.1	30.2	13.8	35.5	52.6	36.2	12.5	20.2	0.7	94.2	94.8	94.5
14	35.0	36.6	35.7	22.5	27.3	24.2	35.2	36.5	35.7	25.7	29.7	27.4	34.9	36.2	35.6	22.5	28.3	12.8	94.8	95.2	95.1
15	36.2	44.9	41.4	18.0	22.7	19.6	35.4	45.4	39.9	21.2	25.9	22.9	34.7	36.3	35.6	23.8	27.4	25.1	94.7	95.5	95.1
16	39.4	48.8	41.0	17.1	22.0	2.5	44.4	49.3	47.2	13.4	21.5	9.0	34.8	40.4	37.6	20.1	24.3	22.1	95.3	95.5	95.4
17	--	--	--	--	--	--	35.1	36.8	35.7	25.7	30.4	15.8	38.7	43.1	40.8	18.2	20.6	8.6	94.1	95.4	94.7
18	35.3	36.0	35.6	27.1	27.6	0.4	34.8	39.1	36.9	25.5	28.5	27.3	34.1	38.0	35.7	22.4	27.4	14.7	94.1	95.6	95.5
19	35.2	37.9	35.9	24.4	27.4	26.3	37.4	47.1	42.2	21.7	25.6	23.7	34.9	37.9	36.0	23.6	26.5	25.1	94.8	95.8	95.4
20	35.5	41.0	38.5	22.1	25.8	23.5	44.9	52.8	48.4	19.0	22.1	11.6	35.8	42.8	39.5	20.4	24.2	22.0	95.5	95.8	95.6
21	40.1	47.2	43.2	18.4	22.7	20.1	35.1	36.3	35.7	28.9	30.4	11.6	37.1	45.5	43.0	18.0	23.7	12.9	95.3	95.8	95.5
22	35.5	59.6	39.2	14.0	27.0	14.2	35.4	41.4	39.1	25.5	29.6	26.9	34.1	38.0	35.9	23.0	28.0	25.8	95.6	96.0	95.8
23	35.2	39.4	36.5	23.3	30.1	25.7	40.0	47.3	42.7	21.6	25.8	23.7	35.2	43.6	37.5	20.5	26.7	23.4	95.4	95.9	95.7
24	33.1	110.8	40.8	17.3	32.2	20.4	35.3	124.7	42.7	19.9	34.3	20.6	34.9	101.2	42.6	12.8	32.6	18.0	95.6	96.1	95.8
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	95.6	95.6	95.6
26	34.3	43.6	36.3	21.6	30.3	18.1	35.0	40.5	36.5	26.3	31.0	21.7	34.4	37.9	35.8	24.2	30.1	20.3	95.5	95.6	95.6
27	35.0	40.2	35.9	22.6	29.9	27.2	35.2	40.5	35.9	25.7	30.4	11.4	33.8	40.7	35.9	21.7	29.5	26.2	95.5	96.1	95.8
28	35.4	58.2	45.2	15.7	24.4	20.4	35.3	42.4	38.4	26.1	33.5	29.0	35.2	37.9	36.8	17.6	24.2	2.0	94.8	96.2	95.6
29	40.6	60.5	57.0	12.1	16.5	5.6	35.4	48.0	42.1	22.1	29.5	25.5	--	--	--	--	--	--	95.1	96.2	95.8
30	--	--	--	--	--	--	46.9	63.9	53.6	17.4	22.3	20.2	--	--	--	--	--	--	95.9	96.5	96.1
Monthly Total						490.8						590.6						494.6			
Monthly Min/Max/ Avg	33.1	110.8	38.2	11.9	34.4		34.6	124.7	38.8	12.2	37.0		33.7	101.2	36.8	12.5	32.6		90.5	96.5	94.7

NOTES: - Each filter has a UV reactor

- Transmittance (%) is a grab sample of the filter effluent prior to the UV reactor of a random online filter

' -- ' indicates filter and UV reactor offline

1.2.13 Rossdale UV Disinfection - Filters 4 - 6

September 2024

Filter	4						5						6						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	34.7	36.8	35.7	23.0	26.6	24.6	--	--	--	--	--	--	35.1	35.9	35.6	27.1	31.2	29.0	91.3	92.8	92.3
2	35.0	50.9	36.2	10.6	23.1	0.5	34.9	36.2	35.5	28.0	31.7	18.0	35.0	36.6	35.6	22.2	27.1	10.9	90.5	92.0	91.2
3	34.4	36.8	35.7	22.5	26.2	18.9	34.9	36.2	35.5	26.5	29.4	28.0	35.1	36.2	35.6	26.1	33.9	14.7	92.0	93.2	92.5
4	35.8	36.8	35.6	23.5	31.2	27.2	35.3	36.1	35.5	22.3	26.7	23.8	35.7	36.0	35.6	28.8	34.5	31.3	92.2	93.3	92.4
5	34.8	35.9	35.8	24.3	27.4	24.6	35.0	36.1	35.5	21.0	22.6	11.3	35.1	36.2	35.6	27.7	32.9	30.8	92.4	94.2	93.4
6	35.0	36.5	35.7	27.7	32.0	0.9	--	--	--	--	--	--	35.0	51.0	35.6	13.0	29.1	14.8	93.8	94.4	94.0
7	34.9	36.7	35.7	29.4	34.0	32.0	35.1	36.1	35.6	24.4	33.4	16.0	--	--	--	--	--	--	92.5	94.4	94.1
8	34.9	45.0	35.7	18.4	33.1	28.4	34.5	36.1	35.6	27.6	33.0	30.7	35.1	36.0	35.6	24.6	36.7	27.5	92.5	94.8	94.3
9	--	--	--	--	--	--	35.0	36.3	35.6	23.5	28.3	26.3	35.2	35.9	35.6	27.4	33.1	31.5	94.1	94.9	94.6
10	--	--	--	--	--	--	35.4	43.3	38.7	18.3	23.5	10.9	35.2	36.1	35.7	23.7	30.7	26.5	94.1	95.1	95.0
11	34.9	36.6	35.7	25.3	30.5	27.5	34.8	36.0	35.6	24.6	31.5	10.1	--	--	--	--	--	--	94.4	95.4	95.1
12	34.9	39.5	36.4	21.0	30.4	25.2	34.9	36.1	35.6	24.0	31.5	27.2	35.0	36.0	35.6	27.0	35.1	29.9	94.2	94.5	94.4
13	35.1	45.5	40.3	19.2	23.4	21.4	35.1	38.2	36.2	21.8	25.8	23.3	34.8	36.0	35.6	25.5	29.3	27.2	94.2	94.8	94.5
14	38.2	57.4	40.5	14.8	22.9	2.7	37.3	45.6	41.8	18.2	22.2	10.3	35.2	36.2	35.7	22.9	26.5	24.5	94.8	95.2	95.1
15	--	--	--	--	--	--	35.1	36.1	35.6	24.3	28.5	13.2	35.3	73.9	36.0	10.1	25.8	2.1	94.7	95.5	95.1
16	34.5	44.0	38.0	22.1	27.7	24.1	35.1	36.9	35.8	23.9	27.8	25.6	35.3	36.4	35.6	30.4	32.1	16.1	95.3	95.5	95.4
17	35.5	42.9	38.3	21.1	26.5	24.4	35.4	44.4	39.0	18.4	24.4	21.8	35.1	37.1	35.6	25.7	31.0	28.8	94.1	95.4	94.7
18	41.8	50.2	47.5	18.8	21.8	20.3	43.7	50.1	47.8	17.7	18.8	9.0	35.4	38.3	36.2	22.1	25.8	24.3	94.1	95.6	95.5
19	--	--	--	--	--	--	35.1	39.3	38.1	23.5	24.1	7.2	36.9	55.0	40.6	15.5	22.2	14.9	94.8	95.8	95.4
20	37.9	45.1	40.1	22.6	27.0	11.6	36.8	41.8	38.8	22.3	25.3	24.0	35.3	36.0	35.6	28.7	32.0	29.4	95.5	95.8	95.6
21	36.8	42.2	39.4	24.0	26.3	25.2	37.2	43.7	40.0	20.7	25.2	22.5	34.8	36.1	35.7	24.6	29.4	26.7	95.3	95.8	95.5
22	40.6	53.4	47.6	19.5	24.8	21.7	43.0	57.4	50.7	16.6	21.2	14.6	35.5	46.6	42.0	19.6	24.8	21.5	95.6	96.0	95.8
23	46.4	123.4	49.7	18.6	21.5	12.3	35.1	37.3	35.6	24.6	30.8	11.7	35.4	54.9	42.0	15.7	33.4	2.3	95.4	95.9	95.7
24	36.3	103.7	38.8	22.7	30.5	15.0	35.3	41.4	38.0	23.2	28.7	22.0	35.2	36.5	35.6	28.1	34.0	29.3	95.6	96.1	95.8
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	95.6	95.6	95.6
26	35.1	41.2	37.0	25.8	30.0	16.5	--	--	--	--	--	--	--	--	--	--	--	--	95.5	95.6	95.6
27	35.1	50.3	38.7	19.8	29.3	26.4	35.2	37.2	36.0	25.9	28.4	17.3	--	--	--	--	--	--	95.5	96.1	95.8
28	35.1	44.8	40.4	24.4	31.4	24.3	35.1	44.6	39.1	22.5	27.6	25.3	35.3	35.9	35.6	29.5	31.8	11.5	94.8	96.2	95.6
29	36.0	50.4	43.2	21.4	28.6	25.0	40.7	54.6	47.8	14.0	23.2	19.3	34.7	36.1	35.7	26.2	30.6	28.4	95.1	96.2	95.8
30	36.2	55.7	47.3	20.1	31.5	22.2	--	--	--	--	--	--	35.3	45.1	38.5	22.0	27.8	25.2	95.9	96.5	96.1
Monthly Total						502.8						469.1						559.3			
Monthly Min/Max/ Avg	34.4	123.4	39.4	10.6	34.0		34.5	57.4	38.4	14.0	33.4		34.7	73.9	36.5	10.1	36.7		90.5	96.5	94.7

NOTES: - Each filter has a UV reactor

- Transmittance (%) is a grab sample of the filter effluent prior to the UV reactor of a random online filter

' -- ' indicates filter and UV reactor offline

1.2.14 Rossdale UV Disinfection - Filters 7 - 9

September 2024

Filter	7						8						9						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	35.0	36.1	35.5	30.3	35.0	32.4	33.5	36.0	35.1	26.3	36.7	20.0	35.0	36.7	35.6	24.2	28.0	11.7	91.3	92.8	92.3
2	35.0	36.1	35.5	28.7	34.0	31.5	33.7	36.0	35.4	31.1	36.3	33.9	34.0	36.1	34.5	27.1	35.9	2.0	90.5	92.0	91.2
3	35.1	36.1	35.6	26.1	29.1	27.5	35.0	36.0	35.6	28.4	31.6	30.0	33.8	36.3	35.6	31.3	35.8	33.8	92.0	93.2	92.5
4	35.1	43.4	35.6	13.3	37.1	11.5	35.1	36.7	35.6	22.5	28.7	12.6	35.6	36.3	35.5	27.6	33.8	20.5	92.2	93.3	92.4
5	35.1	36.1	35.6	28.5	35.4	33.0	--	--	--	--	--	--	34.9	36.1	35.6	27.4	37.4	14.6	92.4	94.2	93.4
6	35.0	36.2	35.6	29.9	32.7	31.7	34.5	36.0	35.6	31.3	37.2	17.4	35.0	36.4	35.6	29.8	35.9	33.7	93.8	94.4	94.0
7	35.1	37.4	35.6	23.0	30.2	15.6	35.1	36.1	35.6	30.1	36.8	34.5	34.9	36.2	35.6	28.7	33.9	32.2	92.5	94.4	94.1
8	35.2	36.0	35.6	26.9	31.3	7.9	35.1	36.0	35.6	24.7	36.5	33.4	35.0	40.1	35.6	19.3	33.4	17.8	92.5	94.8	94.3
9	34.5	36.1	35.6	29.5	34.9	31.9	35.1	55.0	35.6	11.2	30.7	17.3	34.2	36.4	35.5	30.0	39.7	17.2	94.1	94.9	94.6
10	35.0	37.0	35.6	25.9	32.8	28.9	35.1	36.0	35.6	23.7	31.8	14.0	35.0	36.3	35.6	27.5	34.9	31.1	94.1	95.1	95.0
11	35.1	36.9	35.6	24.1	27.6	19.4	35.1	36.1	35.6	26.6	34.0	31.0	35.0	36.2	35.6	25.9	30.7	28.8	94.4	95.4	95.1
12	35.1	36.1	35.6	25.3	31.3	15.1	35.0	36.0	35.6	24.1	34.0	28.0	35.1	39.6	35.6	18.2	30.6	15.0	94.2	94.5	94.4
13	34.9	36.1	35.6	28.1	30.1	29.0	35.1	36.0	35.6	22.6	25.5	13.4	--	--	--	--	--	--	94.2	94.8	94.5
14	35.1	36.1	35.6	24.9	28.8	26.3	--	--	--	--	--	--	34.9	36.2	35.6	26.0	31.5	28.7	94.8	95.2	95.1
15	35.2	96.1	35.9	22.1	25.3	12.3	35.1	36.1	35.6	23.2	29.7	27.1	35.0	36.2	35.6	22.2	30.9	28.1	94.7	95.5	95.1
16	--	--	--	--	--	--	35.3	36.1	35.6	26.5	30.3	28.5	35.1	36.1	35.6	23.4	27.6	25.1	95.3	95.5	95.4
17	35.2	36.2	35.6	26.1	31.1	23.5	35.2	37.4	35.6	18.9	27.6	24.5	34.5	37.1	35.6	20.4	31.3	7.0	94.1	95.4	94.7
18	35.2	36.0	35.6	26.2	29.3	28.1	--	--	--	--	--	--	35.0	36.3	35.6	28.3	31.4	30.3	94.1	95.6	95.5
19	35.0	38.2	36.2	23.3	27.3	25.4	35.2	36.1	35.6	27.9	32.7	15.9	35.0	36.1	35.6	25.4	30.1	28.0	94.8	95.8	95.4
20	36.5	36.7	44.4	23.6	23.7	0.1	35.1	36.0	35.6	26.3	29.0	27.4	35.0	37.4	36.1	22.2	26.1	23.8	95.5	95.8	95.6
21	34.0	36.4	35.6	25.0	30.6	26.6	35.2	36.1	35.6	25.0	27.4	26.2	36.4	58.6	37.4	13.4	23.2	3.0	95.3	95.8	95.5
22	34.9	37.2	35.7	25.2	29.5	26.9	35.4	41.8	37.5	20.3	25.3	13.8	34.9	36.2	35.6	25.4	30.7	24.7	95.6	96.0	95.8
23	35.2	38.8	36.1	23.6	29.6	26.0	35.2	36.1	35.7	25.1	34.7	25.6	35.1	36.2	35.6	26.6	30.9	28.8	95.4	95.9	95.7
24	35.2	113.7	36.2	32.0	34.6	18.0	34.4	36.2	35.6	28.3	31.4	24.0	35.1	68.1	35.7	12.4	36.5	22.2	95.6	96.1	95.8
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	95.6	95.6	95.6
26	35.2	37.3	35.7	24.4	31.0	15.9	35.1	36.1	35.6	29.0	32.0	23.2	35.0	36.1	35.6	29.2	31.6	23.3	95.5	95.6	95.6
27	33.6	36.1	35.6	27.4	31.5	29.3	34.7	36.1	35.6	26.6	31.6	29.6	34.9	36.3	35.6	25.7	31.1	28.7	95.5	96.1	95.8
28	35.2	39.6	38.1	15.0	28.1	21.9	35.2	45.7	35.8	19.3	27.8	19.4	35.0	41.4	37.5	21.7	28.9	25.1	94.8	96.2	95.6
29	35.5	45.7	37.7	20.7	26.2	1.4	34.9	36.4	35.6	26.8	32.0	30.1	34.9	42.3	37.4	14.2	31.9	25.0	95.1	96.2	95.8
30	33.0	37.0	35.7	25.4	33.6	29.4	35.2	36.1	35.7	26.3	30.3	27.6	35.0	36.8	35.7	25.8	32.8	29.0	95.9	96.5	96.1
Monthly Total						626.5						628.6						639.2			
Monthly Min/Max/ Avg	33.0	113.7	36.2	13.3	37.1		33.5	55.0	35.7	11.2	37.2		33.8	68.1	35.8	12.4	39.7		90.5	96.5	94.7

NOTES: - Each filter has a UV reactor

- Transmittance (%) is a grab sample of the filter effluent prior to the UV reactor of a random online filter

' -- ' indicates filter and UV reactor offline

1.2.15 E.L. Smith UV Disinfection - UV Reactors 1 - 4

September 2024

Filter	1						2						3						4						Transmittance (%)		
Day	Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)			Dosage (mJ/cm²)			Flow (MLD)					
	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg
1	45.9	76.8	64.9	73.5	92.4	85.3	45.7	80.2	65.8	71.6	90.9	83.1	45.4	73.5	62.0	74.0	91.3	85.3	--	--	--	--	--	--	90.1	91.5	90.6
2	49.9	73.8	70.0	72.5	96.9	87.7	63.3	73.5	66.1	72.1	94.5	85.3	67.7	78.1	70.3	75.0	97.4	88.1	--	--	--	--	--	--	90.3	90.8	90.4
3	51.2	60.5	56.2	80.0	98.6	90.3	46.9	78.2	53.5	79.0	97.7	88.3	47.8	82.5	54.8	81.7	98.3	91.1	--	--	--	--	--	--	90.8	92.2	91.7
4	57.4	93.6	60.3	75.0	150.0	91.9	51.7	183.7	54.9	55.2	120.2	89.1	49.6	126.5	56.5	81.1	100.7	91.8	--	--	--	--	--	--	91.6	92.3	92.2
5	59.5	71.4	64.7	79.5	96.0	90.0	54.1	64.9	58.4	77.3	93.5	87.8	55.0	65.6	59.2	78.9	95.3	90.2	41.3	166.6	99.7	25.6	25.6	0.1	92.1	92.9	92.5
6	62.3	76.3	65.8	81.3	105.5	95.0	56.0	69.0	59.6	77.9	102.9	92.3	57.0	69.9	60.1	81.2	104.2	95.4	--	--	--	--	--	--	92.6	93.2	92.9
7	64.8	74.6	69.5	85.1	104.5	96.6	58.3	68.6	62.5	81.6	103.4	94.6	59.2	67.0	62.7	87.2	104.1	97.4	--	--	--	--	--	--	93.1	94.0	93.6
8	65.3	76.4	73.1	79.5	104.6	91.8	58.4	70.9	66.4	76.5	103.2	89.0	59.1	70.3	66.4	79.8	104.0	91.8	--	--	--	--	--	--	93.5	93.9	93.7
9	64.3	77.9	69.9	79.8	105.0	94.3	59.6	72.9	64.6	78.2	101.6	92.2	64.1	72.7	66.7	81.2	104.2	95.0	--	--	--	--	--	--	93.5	94.0	93.7
10	62.7	76.4	68.2	81.3	107.3	93.7	59.0	75.5	65.4	77.4	102.0	90.8	63.3	78.8	69.7	80.6	104.3	94.0	--	--	--	--	--	--	93.8	94.3	94.0
11	49.7	100.2	39.8	58.5	107.2	47.1	61.0	87.9	74.4	69.0	106.9	45.8	68.8	86.6	36.1	72.1	107.6	47.3	--	--	--	--	--	--	94.2	95.4	95.2
12	69.5	80.4	75.6	78.7	105.4	93.4	64.9	77.6	71.8	78.0	101.5	90.9	69.6	81.1	76.4	80.3	104.3	93.7	--	--	--	--	--	--	94.2	94.5	94.3
13	47.1	83.5	69.5	74.2	100.7	88.2	67.9	78.6	73.5	72.1	99.8	85.9	72.5	85.8	79.1	73.7	101.9	88.6	--	--	--	--	--	--	94.0	94.5	94.3
14	46.4	53.6	50.5	68.0	90.0	80.1	71.3	88.4	79.5	65.8	87.3	77.4	46.0	91.2	80.9	68.9	88.7	80.0	--	--	--	--	--	--	94.1	94.4	94.3
15	49.7	58.8	54.3	70.4	88.3	79.1	48.5	88.7	72.5	66.8	86.0	76.5	44.7	89.7	63.3	68.4	87.9	78.8	--	--	--	--	--	--	94.3	94.7	94.6
16	48.7	54.4	51.6	69.9	90.7	81.6	45.5	86.8	68.2	67.4	85.7	79.1	46.4	92.3	72.4	69.9	88.7	81.4	--	--	--	--	--	--	94.4	94.7	94.5
17	50.8	58.4	53.7	70.7	89.9	82.1	49.6	87.8	71.8	68.9	86.4	79.4	83.9	96.9	89.1	71.3	89.2	81.6	--	--	--	--	--	--	94.5	94.9	94.7
18	48.7	57.0	51.7	72.6	98.2	88.4	45.0	79.7	65.4	69.5	96.9	85.6	79.9	91.5	84.8	73.3	98.4	88.0	--	--	--	--	--	--	94.7	94.9	94.8
19	48.4	52.8	50.4	76.6	98.0	90.8	75.2	84.7	78.1	76.7	95.8	88.1	80.9	90.4	84.2	79.3	98.0	90.5	--	--	--	--	--	--	94.2	94.9	94.7
20	46.5	53.2	50.1	79.7	99.4	91.4	73.2	81.8	77.4	78.1	96.3	88.6	77.2	86.9	82.1	79.6	98.3	91.7	--	--	--	--	--	--	94.2	95.6	95.1
21	47.0	58.0	52.2	75.0	98.6	89.7	72.2	87.9	80.2	71.8	96.2	87.0	77.3	93.0	85.0	75.7	97.3	89.8	--	--	--	--	--	--	94.7	95.4	95.1
22	55.3	63.4	59.0	69.1	90.3	82.7	49.5	88.3	57.6	65.6	87.8	80.1	50.8	93.7	58.5	69.1	90.1	82.6	--	--	--	--	--	--	95.3	95.5	95.3
23	53.4	86.7	86.7	60.3	98.8	70.1	47.5	78.3	57.4	57.8	97.3	68.0	66.6	84.0	61.0	59.5	97.7	70.3	--	--	--	--	--	--	95.3	95.6	95.5
24	54.8	62.6	58.8	78.3	101.2	92.3	44.1	89.0	69.9	74.1	98.4	89.6	49.8	96.1	61.8	79.7	99.8	92.3	--	--	--	--	--	--	95.4	95.9	95.7
25	55.1	69.9	59.2	59.2	99.0	89.0	50.4	109.5	68.6	55.3	96.4	86.0	50.9	61.4	53.8	63.4	98.9	89.0	47.1	60.8	52.8	43.4	63.2	6.1	95.4	96.0	95.8
26	52.5	59.9	56.1	79.9	101.1	94.0	45.9	88.8	54.7	77.8	99.1	91.7	48.3	55.2	50.8	81.5	100.5	94.2	--	--	--	--	--	--	95.4	95.8	95.6
27	55.0	64.6	58.0	77.3	97.1	90.2	48.5	57.3	51.8	75.5	94.0	87.6	50.1	59.0	53.0	78.7	95.5	90.1	--	--	--	--	--	--	95.3	96.4	95.8
28	56.1	66.0	60.5	75.2	102.4	88.4	49.9	56.7	53.8	70.7	101.6	85.7	51.4	59.5	55.0	75.6	101.5	88.4	--	--	--	--	--	--	95.5	95.9	95.7
29	62.2	69.4	65.7	69.2	89.2	79.3	54.6	62.5	58.5	66.1	87.7	76.8	57.1	63.9	60.2	70.4	87.5	79.0	--	--	--	--	--	--	95.7	95.9	95.8
30	60.9	68.4	64.2	68.1	90.9	81.5	54.4	60.9	56.8	65.2	87.6	78.7	56.3	64.0	58.6	69.4	89.1	81.5	--	--	--	--	--	--	95.6	96.0	95.8
Monthly Total						2,596.0						2,521.3						2,599.0						6.1			
Monthly Min/Max/ Avg	45.9	100.2	61.0	58.5	150.0		44.1	183.7	65.3	55.2	120.2		44.7	126.5	65.8	59.5	107.6		41.3	166.6	76.3	25.6	63.2		90.1	96.4	94.3

NOTES: ' -- ' indicates UV reactor offline

- Transmittance (%) is a grab sample of the combined filter effluent prior to the UV reactor

1.2.16 Log Removal

September 2024

Day	Rossdale									E.L. Smith								
	Log Removal									Log Removal								
	Giardia			Virus			*Cryptosporidium*			*Giardia*			Virus			*Cryptosporidium*		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	9.7	10.4	10.1	27	30	29	7.0	7.0	7.0	7.4	7.6	7.5	17	23	21	7.0	7.0	7.0
2	10.3	11.7	10.9	30	33	30	7.0	7.0	7.0	7.5	7.6	7.5	20	23	21	7.0	7.0	7.0
3	11.1	11.7	11.4	31	35	33	7.0	7.0	7.0	7.4	7.7	7.5	18	26	22	7.0	7.0	7.0
4	11.4	11.7	11.6	31	37	34	7.0	7.0	7.0	7.5	7.6	7.5	19	23	21	7.0	7.0	7.0
5	10.9	11.6	11.3	28	35	32	7.0	7.0	7.0	7.4	7.6	7.5	18	25	22	7.0	7.0	7.0
6	10.7	11.3	11.1	30	33	32	7.0	7.0	7.0	7.5	7.6	7.5	20	24	22	7.0	7.0	7.0
7	10.7	11.1	11.0	30	33	31	7.0	7.0	7.0	7.4	7.6	7.5	17	23	21	7.0	7.0	7.0
8	10.6	11.4	11.0	27	33	31	7.0	7.0	7.0	7.5	7.6	7.6	20	26	23	7.0	7.0	7.0
9	10.4	10.8	10.7	27	31	28	7.0	7.0	7.0	7.4	7.6	7.5	18	24	21	7.0	7.0	7.0
10	10.2	10.9	10.7	31	35	33	7.0	7.0	7.0	7.5	7.6	7.5	19	23	21	7.0	7.0	7.0
11	10.1	10.9	10.5	27	35	31	7.0	7.0	7.0	7.5	7.7	7.5	20	27	21	7.0	7.0	7.0
12	9.6	10.7	10.4	25	33	30	7.0	7.0	7.0	7.4	7.5	7.4	17	21	18	7.0	7.0	7.0
13	10.2	10.5	10.3	27	31	29	7.0	7.0	7.0	7.4	7.5	7.4	17	20	18	7.0	7.0	7.0
14	10.1	10.4	10.3	27	30	29	7.0	7.0	7.0	7.4	7.5	7.5	16	21	19	7.0	7.0	7.0
15	9.9	10.3	10.1	28	33	30	7.0	7.0	7.0	7.4	7.6	7.5	18	23	20	7.0	7.0	7.0
16	9.8	10.1	10.0	29	30	30	7.0	7.0	7.0	7.4	7.5	7.4	16	20	19	7.0	7.0	7.0
17	9.8	10.2	10.1	28	31	30	7.0	7.0	7.0	7.4	7.5	7.5	18	22	19	7.0	7.0	7.0
18	9.9	10.1	10.0	29	30	29	7.0	7.0	7.0	7.4	7.5	7.4	16	20	18	7.0	7.0	7.0
19	9.6	10.1	9.8	30	31	30	7.0	7.0	7.0	7.4	7.5	7.4	18	20	19	7.0	7.0	7.0
20	9.5	9.7	9.6	29	31	30	7.0	7.0	7.0	7.4	7.5	7.4	16	21	18	7.0	7.0	7.0
21	9.3	9.6	9.4	25	31	28	7.0	7.0	7.0	7.4	7.5	7.4	16	20	18	7.0	7.0	7.0
22	9.2	9.4	9.3	26	28	27	7.0	7.0	7.0	7.3	7.4	7.4	14	19	17	7.0	7.0	7.0
23	9.3	9.5	9.4	25	29	28	7.0	7.0	7.0	7.4	7.4	7.4	16	19	17	7.0	7.0	7.0
24	9.2	9.9	9.3	23	28	26	7.0	7.0	7.0	7.3	7.5	7.4	14	20	16	7.0	7.0	7.0
25	--	--	--	--	--	--	--	--	--	7.4	7.5	7.4	16	21	17	7.0	7.0	7.0
26	9.4	10.8	9.7	27	29	28	7.0	7.0	7.0	7.3	7.4	7.4	14	19	17	7.0	7.0	7.0
27	9.3	9.7	9.5	26	29	28	6.9	7.0	7.0	7.3	7.4	7.4	14	18	16	7.0	7.0	7.0
28	9.3	9.7	9.5	24	29	27	7.0	7.0	7.0	7.3	7.4	7.4	15	19	17	7.0	7.0	7.0
29	9.4	9.6	9.5	25	27	26	7.0	7.0	7.0	7.3	7.4	7.4	15	18	16	7.0	7.0	7.0
30	9.0	9.4	9.3	21	26	24	7.0	7.0	7.0	7.3	7.4	7.3	13	17	15	7.0	7.0	7.0
Monthly Min/Max/Avg	9.0	11.7	10.2	21	37	29	6.9	7.0	7.0	7.3	7.7	7.5	13	27	19	7.0	7.0	7.0

NOTES: ' -- ' indicates plant offline

1.2.17 Liquid Alum Chemical Consumption

September 2024

Day	Dosage (mg/L)			Consumption (kg)			
	Rossdale		E.L. Smith	Rossdale			E.L. Smith
	Plant 1	Plant 2		Plant 1	Plant 2	Plant Total	
1	67.2	67.1	81.3	8,309	16,614	24,923	47,091
2	87.6	88.4	77.6	13,766	19,049	32,816	46,367
3	61.0	60.9	63.2	12,576	12,565	25,142	39,058
4	46.2	45.9	47.1	8,973	8,917	17,890	29,029
5	39.8	39.8	38.2	7,391	7,387	14,778	23,508
6	35.2	35.2	33.8	6,675	6,674	13,349	21,401
7	31.9	31.9	29.8	6,244	6,244	12,488	19,714
8	31.3	31.3	28.2	6,088	6,088	12,176	17,454
9	30.0	30.1	26.4	6,052	6,069	12,120	17,004
10	30.0	30.0	26.2	5,882	5,882	11,764	16,719
11	25.1	25.1	25.5	4,651	4,655	9,307	8,354
12	25.0	25.0	24.6	4,320	4,426	8,746	15,581
13	25.0	25.0	24.3	4,123	4,382	8,504	14,365
14	25.0	25.0	23.4	3,943	4,550	8,493	12,891
15	25.0	25.0	22.5	3,124	5,070	8,195	12,086
16	25.0	25.0	22.2	3,015	5,146	8,161	12,231
17	23.4	23.4	21.2	2,893	4,822	7,715	11,829
18	23.4	23.5	21.9	2,901	4,836	7,737	13,087
19	25.0	25.0	21.5	3,092	5,726	8,818	13,295
20	24.8	24.8	21.1	3,063	6,126	9,190	13,054
21	23.0	23.0	21.0	2,930	5,690	8,620	12,796
22	22.9	22.9	21.1	3,577	5,662	9,239	11,878
23	23.7	23.7	21.1	3,161	5,883	9,044	10,255
24	22.1	22.2	21.0	3,860	5,031	8,890	13,030
25	--	--	21.0	--	--	--	13,054
26	22.2	22.2	22.5	3,019	4,406	7,425	13,937
27	21.4	21.4	21.9	3,535	5,305	8,840	13,574
28	21.9	21.9	21.1	3,306	5,113	8,419	12,453
29	21.0	21.0	21.1	2,744	4,476	7,220	11,468
30	21.0	21.0	21.1	2,598	4,311	6,909	11,318
Monthly Total				145,811	191,106	336,917	527,881
Monthly Avg	31.2	31.3	29.8	5,028	6,590	11,618	17,596

NOTES : ' -- ' indicates system offline
- Liquid alum consumption (kg) at 48.5% by weight (solution delivered to sites at a concentration of 48.5%)
- NSF limit for liquid alum is **194 mg/L**

1.2.18 Primary Polymer Chemical Consumption

September 2024

Day	Dosage (mg/L)			Consumption (kg)			
	Rossdale		E.L. Smith	Rossdale			E.L. Smith
	Plant 1	Plant 2		Plant 1	Plant 2	Plant Total	
1	0.29	0.29	0.20	17	34	52	56
2	0.35	0.35	0.22	27	37	63	63
3	0.35	0.35	0.18	35	35	70	53
4	0.35	0.35	0.16	33	33	65	48
5	0.30	0.30	0.16	27	27	54	48
6	0.27	0.27	0.16	25	25	50	49
7	0.25	0.25	0.16	24	24	48	51
8	0.25	0.25	0.16	24	24	47	48
9	0.25	0.25	0.16	24	24	49	50
10	0.25	0.25	0.15	24	24	48	45
11	0.25	0.25	0.14	23	23	45	22
12	0.25	0.25	0.14	21	21	42	43
13	0.25	0.25	0.14	20	21	41	39
14	0.25	0.25	0.12	19	22	41	33
15	0.25	0.25	0.12	15	25	40	32
16	0.25	0.25	0.12	15	25	40	33
17	0.25	0.25	0.12	15	25	40	33
18	0.25	0.25	0.12	15	25	40	35
19	0.25	0.25	0.12	15	28	43	36
20	0.25	0.25	0.12	15	30	45	36
21	0.25	0.25	0.12	15	30	45	35
22	0.25	0.25	0.12	19	30	49	33
23	0.25	0.25	0.12	16	30	46	29
24	0.25	0.25	0.12	21	27	49	36
25	--	--	0.12	--	--	--	36
26	0.25	0.25	0.13	16	24	40	39
27	0.25	0.25	0.13	20	30	50	40
28	0.25	0.25	0.13	18	28	47	36
29	0.25	0.25	0.12	16	26	42	32
30	0.25	0.25	0.12	15	25	40	32
Monthly Total				588	781	1,370	1,202
Monthly Avg	0.26	0.26	0.14	20	27	47	40

NOTES: ' -- ' indicates system offline or primary polymer not being used
- Primary polymer consumption (kg) at 100% by weight mixed at the sites to required solution
- NSF limit for Praestol DW 27AG is **1.00 mg/L**

1.2.19 Carbon Chemical Consumption

September 2024

Day	Dosage (mg/L)			Consumption (kg)			
	Rossdale		E.L. Smith	Rossdale			E.L. Smith
	Plant 1	Plant 2		Plant 1	Plant 2	Plant Total	
1	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--
6	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--
9	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--
11	--	--	--	--	--	--	--
12	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--
15	--	--	--	--	--	--	--
16	--	--	--	--	--	--	--
17	--	--	--	--	--	--	--
18	--	--	--	--	--	--	--
19	--	--	--	--	--	--	--
20	--	--	--	--	--	--	--
21	--	--	--	--	--	--	--
22	--	--	--	--	--	--	--
23	--	--	--	--	--	--	--
24	--	--	--	--	--	--	--
25	--	--	--	--	--	--	--
26	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--
Monthly Total				--	--	--	--
Monthly Avg	--	--	--	--	--	--	--

NOTES: ' -- ' indicates carbon not being used
- Carbon consumption (kg) at 100% by weight (mixed at the sites)
- NSF limit for Carbon is **250 mg/L**

1.2.20 Sodium Hypochlorite Chemical Consumption

September 2024

Day	Rossdale					E.L. Smith	
	Dosage (mg/L)		Consumption (kg)			Dosage (mg/L)	Consumption (kg)
	Plant 1	Plant 2	Plant 1	Plant 2	Plant Total		
1	3.07	3.01	23,034	45,212	74,402	4.21	155,560
2	3.24	3.08	30,858	40,249	76,539	4.25	161,936
3	3.26	3.06	40,748	38,277	83,839	4.09	161,088
4	3.18	2.88	37,453	33,954	74,835	4.02	158,081
5	3.01	2.66	33,908	29,871	68,755	3.98	156,183
6	3.01	2.84	34,597	32,596	71,869	3.91	157,669
7	3.05	2.84	36,216	33,745	75,101	3.95	166,681
8	3.05	2.85	35,982	33,624	73,990	3.80	149,975
9	3.05	2.85	37,307	34,884	76,982	3.74	153,837
10	3.05	2.91	36,237	34,587	77,412	3.71	151,496
11	2.98	2.97	33,545	33,422	74,249	3.76	78,487
12	3.16	2.84	33,102	30,433	68,673	3.60	145,899
13	3.12	2.60	31,184	27,623	62,933	3.70	139,558
14	3.04	2.60	29,033	28,692	61,650	3.78	132,798
15	2.91	2.66	22,087	32,726	58,168	3.68	125,994
16	2.75	2.75	20,142	34,377	59,008	3.66	128,979
17	2.80	2.80	20,970	34,945	60,470	3.73	132,813
18	2.79	2.75	20,933	34,363	59,514	3.61	137,676
19	2.77	2.73	20,800	37,906	63,877	3.63	143,398
20	2.72	2.68	20,368	40,225	64,595	3.61	142,634
21	2.70	2.65	20,813	39,751	64,932	3.67	142,264
22	2.70	2.65	25,567	39,746	70,068	3.45	124,170
23	2.69	2.65	21,698	39,813	65,823	3.51	109,079
24	2.72	2.69	28,785	36,907	68,896	3.26	128,939
25	--	--	--	--	--	3.20	126,773
26	2.82	2.75	23,191	33,103	58,491	3.29	130,067
27	2.90	2.81	28,954	42,152	74,046	3.24	128,176
28	2.84	2.78	25,937	39,285	70,959	3.31	124,985
29	2.80	2.77	22,131	35,748	63,100	3.43	119,273
30	2.75	2.73	20,628	33,924	58,728	3.39	116,237
Monthly Total			816,210	1,032,136	1,981,902		4,130,703
Monthly Avg	2.93	2.79	28,145	35,591	68,341	3.67	137,690

NOTES: ' -- ' indicates system offline

- Sodium hypochlorite consumption (kg) at 0.8% by weight (sodium hypochlorite generated onsite at a concentration of 0.8%)
- Plant Total Consumption is the combined addition of Plant 1, Plant 2 and Post Filter Trim.
- NSF limit for Sodium Hypochlorite generated onsite is **10 mg/L**

1.2.21 Filter Polymer Chemical Consumption

September 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.29	0.22	51	63
2	0.29	0.19	51	54
3	0.29	0.19	57	57
4	0.29	0.20	51	60
5	0.29	0.20	49	60
6	0.29	0.20	53	61
7	0.29	0.22	55	70
8	0.29	0.22	54	66
9	0.29	0.22	56	69
10	0.29	0.22	54	67
11	0.29	0.20	52	31
12	0.29	0.20	48	62
13	0.29	0.20	45	58
14	0.29	0.20	46	53
15	0.29	0.20	44	51
16	0.29	0.19	44	51
17	0.29	0.20	45	54
18	0.29	0.20	45	58
19	0.29	0.21	48	63
20	0.29	0.21	50	62
21	0.29	0.20	51	59
22	0.29	0.20	55	55
23	0.29	0.20	52	47
24	0.29	0.20	54	60
25	--	0.19	--	57
26	0.32	0.20	44	60
27	0.31	0.20	61	60
28	0.30	0.20	54	57
29	0.27	0.20	43	53
30	0.26	0.20	39	52
Monthly Total			1,452	1,729
Monthly Avg	0.29	0.20	50	58

NOTES: ' -- ' indicates system offline

- Filter polymer consumption (kg) at 100% by weight mixed at the sites to required solution
- NSF limit for Magnafloc LT 7981 is **20 mg/L**
- NSF limit for Magnafloc LT 7995 is **25 mg/L**

1.2.22 Aqua Ammonia Chemical Consumption

September 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.64	--	593	--
2	0.64	--	598	--
3	0.64	--	663	--
4	0.64	--	592	--
5	0.64	--	574	--
6	0.64	--	617	--
7	0.64	--	635	--
8	0.64	--	624	--
9	0.64	--	646	--
10	0.64	--	632	--
11	0.64	--	600	--
12	0.64	--	553	--
13	0.64	--	526	--
14	0.64	--	529	--
15	0.64	--	507	--
16	0.64	--	515	--
17	0.64	--	520	--
18	0.64	--	520	--
19	0.64	--	560	--
20	0.64	--	584	--
21	0.64	--	589	--
22	0.64	--	641	--
23	0.64	--	605	--
24	0.64	--	635	--
25	--	--	--	--
26	0.64	--	469	--
27	0.64	--	661	--
28	0.64	--	603	--
29	0.64	--	541	--
30	0.64	--	517	--
Monthly Total			16,849	--
Monthly Avg	0.64	--	581	--

NOTES: ' -- ' indicates system offline
- Aqua ammonia consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 19.0%)
- NSF limit for Aqua Ammonia is **2.85 mg/L**

1.2.22-1 LAS Ammonia Chemical Consumption

September 2024

Day	Dosage (mg/L)	Consumption (kg)
	E.L. Smith	E.L. Smith
1	0.67	1,739
2	0.67	1,790
3	0.67	1,847
4	0.67	1,872
5	0.67	1,836
6	0.67	1,937
7	0.67	1,977
8	0.67	1,869
9	0.67	1,928
10	0.66	1,886
11	0.65	923
12	0.67	1,906
13	0.67	1,802
14	0.67	1,629
15	0.67	1,607
16	0.67	1,661
17	0.67	1,666
18	0.67	1,797
19	0.67	1,848
20	0.67	1,863
21	0.67	1,828
22	0.67	1,684
23	0.67	1,424
24	0.67	1,881
25	0.67	1,852
26	0.67	1,920
27	0.67	1,836
28	0.67	1,800
29	0.67	1,612
30	0.67	1,658
Monthly Total		52,879
Monthly Avg	0.67	1,763

NOTES: ' -- ' indicates system offline
- LAS ammonia consumption (kg) at 100% by weight (solution delivered to sites at a concentration of **41.0%**)
- NSF limit for LAS Ammonia is **16.4 mg/L**

1.2.23 Caustic Soda Chemical Consumption

September 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	3.89	14.5	1,410	7,372
2	11.0	17.7	3,945	9,236
3	9.76	13.7	3,819	7,382
4	5.42	9.07	1,910	4,954
5	2.98	6.14	1,006	3,293
6	1.82	4.70	657	2,656
7	1.25	3.47	469	2,001
8	1.03	2.71	381	1,476
9	1.03	2.22	395	1,250
10	1.03	1.48	386	823
11	0.02	1.05	3	295
12	--	0.83	--	462
13	--	0.59	--	309
14	--	0.58	--	276
15	--	0.37	--	175
16	--	0.50	--	242
17	--	0.47	--	228
18	--	0.46	--	240
19	--	0.28	--	150
20	--	0.05	--	28
21	--	0.05	--	28
22	--	0.06	--	28
23	--	--	--	--
24	--	--	--	--
25	--	--	--	--
26	--	--	--	--
27	--	--	--	--
28	--	--	--	--
29	--	--	--	--
30	--	--	--	--
Monthly Total			14,381	42,915
Monthly Avg	3.57	3.68	1,307	1,951

NOTES: ' -- ' indicates system offline
- Caustic soda consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 50.0%)
- NSF limit for Caustic Soda is **50 mg/L**

1.2.24 Fluoride Chemical Consumption
September 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.62	0.65	501	755
2	0.62	0.65	505	775
3	0.62	0.64	560	788
4	0.62	0.63	497	787
5	0.62	0.63	485	773
6	0.62	0.63	521	815
7	0.62	0.63	536	832
8	0.62	0.62	527	777
9	0.62	0.61	545	792
10	0.62	0.61	534	777
11	0.62	0.59	507	379
12	0.62	0.61	467	776
13	0.62	0.61	444	734
14	0.63	0.61	451	665
15	0.63	0.61	435	656
16	0.63	0.61	442	677
17	0.63	0.61	446	680
18	0.63	0.61	446	730
19	0.63	0.60	481	740
20	0.63	0.60	501	747
21	0.63	0.60	505	732
22	0.63	0.60	550	675
23	0.63	0.60	519	571
24	0.63	0.60	544	754
25	--	0.60	--	742
26	0.63	0.60	401	769
27	0.63	0.60	567	737
28	0.63	0.60	517	722
29	0.63	0.60	463	648
30	0.63	0.60	444	666
Monthly Total			14,341	21,671
Monthly Avg	0.63	0.61	495	722

NOTES: ' -- ' indicates system offline
- Fluoride consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 21.8%)
- NSF limit for Fluoride is **1.308 mg/L**

1.2.25 Sodium Bisulfite (SBS) Chemical Consumption

September 2024

Day	Dosage (mg/L)		Consumption (kg)		De-chlorinated Waste Stream to Outfall (ML)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	21.5	22.5	471	2,225	8.5	38
2	30.5	21.5	702	2,259	8.9	40
3	28.1	20.2	595	2,189	8.2	42
4	25.9	22.7	1,496	2,402	22	40
5	18.7	24.4	710	2,571	15	40
6	34.3	26.7	681	2,443	7.7	35
7	31.8	23.5	609	2,431	7.4	39
8	34.3	25.5	723	2,350	8.1	39
9	33.5	20.0	872	2,136	10	41
10	35.4	16.9	617	1,936	6.7	43
11	31.1	19.6	779	2,149	9.7	41
12	26.5	17.1	650	1,896	9.4	42
13	19.5	24.4	648	2,233	13	35
14	19.2	18.9	650	1,976	13	40
15	17.7	18.3	646	1,795	14	37
16	25.7	19.4	651	1,918	9.7	38
17	34.4	15.5	1,040	1,472	12	36
18	21.1	13.9	563	1,498	10	41
19	22.6	13.1	604	1,513	10	44
20	22.6	18.0	651	1,909	11	40
21	25.9	20.9	779	2,197	12	42
22	24.1	19.5	780	1,998	12	39
23	22.0	20.8	647	2,378	11	44
24	49.4	17.9	2,447	1,770	19	37
25	540	15.2	1,208	1,760	1.0	44
26	20.5	18.1	1,968	1,496	37	32
27	36.3	13.4	906	1,523	9.6	43
28	45.5	14.0	1,955	1,275	16	35
29	38.8	11.4	1,301	1,128	13	38
30	31.8	23.6	907	1,968	11	32
Monthly Total			27,255	58,794	356	1,176
Monthly Avg	45.6	19.2	909	1,960	12	39

NOTES: ' -- ' indicates plant offline

- Sodium bisulfite consumption (kg) at 38% by weight (solution delivered to sites at a concentration of 38.0%)

1.2.26 Rossdale Waste Stream Data

September 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	Total	De-Chlorin'd Waste Stream 3			De-Chlorin'd Waste Stream 7		
Volume (ML)		0.0	0.0	99	36	12	148	58.20			297.36		
Solids (kg)	TSS	69,747	0	3,255			73,002						
	Aluminium	14,760	0	1,127			15,887						
# of Bypasses						2		Min	Max	Avg	Min	Max	Avg
pH								6.6	8.3	7.8	6.7	7.9	7.7
Total Chlorine (mg/L)								0.00	0.00	0.00	0.00	0.00	0.00
Sulfite (mg/L)								1.00	20.0	11.0	0.85	20.0	6.51

NOTES: * Estimate value for the waste stream volume and calculated value for the waste stream solids
- Clarifier washdown volume(s) estimated for clarifier cleaning
- LLP flush, HLP cooling are not applicable to the Rossdale WTP

1.2.27 E.L. Smith Waste Stream Data

September 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	LLP Flush	HLP Cooling	Total	De-chlorinated Waste flow to		
Volume (ML)		595	0.0	308	116	45	8.8	29	1,103	1,176		
Solids (kg)	TSS	184,309	0	11,831					196,140			
	Aluminium	22,211	0	4,095					26,306			
# of Bypasses						3				Min	Max	Avg
pH										6.44	7.88	7.56
Total Chlorine (mg/L)										0.00	0.00	0.00
Sulphite (mg/L)										0.15	20.0	6.05

NOTES: * Estimate value for the waste stream volume and calculated value for the waste stream solids
- Clarifier washdown volume(s) estimated for clarifer cleaning
- Estimated chlorinated waste stream to outfall for dechlorination

1.2.28 Demand/Production Statistics

September 2024

Month	ROSSDALE ZONE			E.L.SMITH ZONE			SYSTEM TOTAL			RESERVOIR PUMPAGE		
	Monthly Prod'n (ML)	Max Daily Prod'n (ML)	Peak Daily Demand (ML)	Monthly Prod'n (ML)	Max Daily Prod'n (ML)	Peak Daily Demand (ML)	Monthly Prod'n (ML)	Max Daily Prod'n (ML)	Peak Daily Demand (ML)	Rossdale Zone (ML)	E.L.Smith Zone (ML)	Total (ML)
JANUARY	4,226	179	222	6,762	253	249	10,989	395	379	1,451	2,466	3,917
FEBRUARY	3,750	165	183	6,828	278	301	10,578	433	371	1,507	2,211	3,718
MARCH	4,282	163	189	7,099	269	260	11,382	405	378	1,523	2,511	4,034
APRIL	4,610	183	212	6,550	246	232	11,159	419	389	1,250	2,653	3,902
MAY	4,521	183	204	7,297	272	318	11,818	438	422	1,546	2,841	4,387
JUNE	5,000	209	205	7,320	268	270	12,320	471	456	1,469	2,990	4,459
JULY	6,424	264	258	8,286	312	314	14,710	574	567	1,650	3,749	5,399
AUGUST	5,439	240	235	7,659	282	301	13,098	511	494	1,529	3,233	4,762
SEPTEMBER	4,814	192	206	7,441	284	327	12,255	466	445	1,361	3,040	4,401

2024 - HIGH 5-DAY DEMAND

	PLANTS PROD (ML/d)	RES. GAIN / LOSS (%)	RES. GAIN / LOSS (ML)	TOTAL DEMAND (ML)
17-Jul-2024	547	-0.8	-5.3	552
18-Jul-2024	555	-2.0	-12.4	567
19-Jul-2024	574	3.8	23.7	551
20-Jul-2024	512	0.4	2.3	510
21-Jul-2024	492	-5.7	-35.8	528
			AVERAGE:	542

Year to Date Data	2024	2023	% CHANGE
TOTAL PRODUCTION TO DATE (ML)	108,308	107,385	0.9
AVG. DAILY DEMAND TO DATE (ML)	395	393	0.5
PEAK DAILY DEMAND TO DATE (ML)	567	545	4.0
PEAK HOURLY DEMAND TO DATE (ML)	782	751	4.0
HIGH 5-DAY AVERAGE TO DATE (ML)	542	530	2.2

Peak daily demand of 567 ML/d occurred on July 18, 2024

Peak hourly demand of 782 ML/d occurred on July 18, 2024 at 21:00

1.2.29 Reservoir Chlorine Residual (mg/L) - Part 1

September 2024

Reservoir	Papaschase 1			Ormsby			Clareview Discharge			Millwoods Discharge			Kaskitayo			Discovery Park		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1.45	1.90	1.50	1.74	1.88	1.83	1.48	1.62	1.57	1.93	2.03	1.97	1.89	2.13	2.05	1.06	1.10	1.08
2	1.47	1.90	1.51	1.74	1.88	1.80	1.47	1.57	1.55	1.87	1.99	1.91	1.99	2.11	2.06	1.05	1.11	1.08
3	1.38	1.87	1.44	1.74	1.97	1.88	1.47	1.56	1.54	1.88	1.96	1.92	1.96	2.16	2.07	1.06	1.25	1.14
4	1.30	1.76	1.38	1.78	1.93	1.86	1.47	1.58	1.54	1.87	2.06	1.91	1.94	2.08	2.01	1.16	1.23	1.20
5	1.28	1.81	1.35	1.74	1.90	1.81	1.41	1.58	1.53	1.85	1.94	1.89	1.99	2.22	2.04	1.11	1.29	1.20
6	1.25	1.71	1.30	1.78	1.93	1.86	1.40	1.53	1.51	1.91	1.98	1.90	2.02	2.17	2.10	1.15	1.25	1.21
7	1.20	1.70	1.25	1.74	1.93	1.87	1.45	1.57	1.52	1.91	1.98	1.93	1.92	2.14	2.10	1.11	1.21	1.16
8	1.16	1.91	1.25	1.68	1.83	1.78	1.45	1.59	1.56	1.90	2.01	1.93	1.95	2.14	2.08	1.05	1.14	1.09
9	--	--	--	1.70	1.83	1.78	1.44	1.62	1.57	1.95	2.00	1.97	2.04	2.14	2.09	1.02	1.07	1.05
10	1.28	1.87	1.36	1.73	1.86	1.81	1.49	1.63	1.59	1.91	2.01	1.95	1.92	2.09	2.06	1.00	1.14	1.06
11	1.21	1.26	1.24	1.70	1.83	1.77	1.45	1.60	1.53	1.84	1.97	1.89	1.92	2.08	2.02	1.05	1.13	1.10
12	1.11	1.26	1.17	1.76	1.95	1.87	1.45	1.55	1.52	1.89	1.99	1.96	1.73	2.14	2.08	1.00	1.08	1.05
13	1.06	1.75	1.23	1.80	1.96	1.89	1.49	1.63	1.54	1.90	2.04	1.96	2.06	2.21	2.09	--	--	--
14	--	--	--	1.83	1.98	1.88	1.52	1.62	1.58	1.91	2.02	1.95	1.93	2.15	2.08	--	--	--
15	1.33	1.89	1.39	1.80	1.95	1.86	1.45	1.80	1.49	1.89	2.00	1.93	1.99	2.12	2.07	--	--	--
16	1.05	1.56	1.27	1.75	1.89	1.84	1.39	1.50	1.46	1.92	2.02	1.95	1.99	2.20	2.10	1.26	1.34	1.06
17	1.06	1.89	1.21	1.76	1.89	1.82	1.44	1.55	1.51	1.90	2.04	1.94	1.95	2.16	2.09	1.26	1.46	1.35
18	--	--	--	1.75	1.88	1.83	1.51	1.61	1.56	1.97	2.03	1.99	2.00	2.22	2.15	1.37	1.66	1.50
19	--	--	--	1.81	2.01	1.93	1.48	1.60	1.56	1.95	2.06	1.99	1.98	2.17	2.12	1.59	1.68	1.64
20	--	--	--	1.90	2.00	1.96	1.45	1.66	1.61	1.97	2.03	2.00	2.12	2.20	2.16	1.48	1.62	1.55
21	--	--	--	1.96	2.05	2.00	1.59	1.79	1.62	1.96	2.05	1.98	1.90	2.15	2.09	1.41	1.53	1.47
22	--	--	--	1.93	2.04	1.99	1.54	1.68	1.63	1.97	2.06	2.00	1.74	1.96	1.92	1.39	1.46	1.42
23	--	--	--	1.89	1.99	1.94	1.54	1.69	1.64	1.98	2.06	1.86	1.56	1.84	1.80	1.37	1.46	1.43
24	--	--	--	1.88	2.01	1.96	1.56	1.69	1.64	1.98	2.11	2.04	1.46	1.72	1.69	1.32	1.44	1.39
25	--	--	--	1.84	1.96	1.90	1.49	1.64	1.59	1.99	2.06	2.01	1.36	1.67	1.59	1.23	1.50	1.40
26	--	--	--	1.73	1.91	1.85	1.47	1.55	1.51	1.94	2.06	2.01	1.33	1.58	1.50	1.31	1.47	1.41
27	1.40	2.03	1.44	1.80	2.18	1.94	1.25	1.56	1.53	2.01	2.08	2.03	1.27	1.47	1.45	1.28	1.45	1.38
28	--	--	--	1.98	2.12	2.02	1.42	1.68	1.60	1.99	2.07	2.02	1.16	1.39	1.33	1.25	1.46	1.40
29	1.57	2.07	1.60	1.85	2.01	1.91	1.54	1.72	1.66	1.92	2.05	1.99	0.99	1.31	1.16	1.23	1.43	1.35
30	1.60	2.04	1.62	1.77	1.91	1.87	1.48	1.66	1.64	1.98	2.05	2.00	0.95	1.29	1.27	1.26	1.44	1.35
Monthly Min/Max/Avg	1.05	2.07	1.36	1.68	2.18	1.88	1.25	1.80	1.56	1.84	2.11	1.96	0.95	2.22	1.91	1.00	1.68	1.28

NOTES: '--' Indication Analyzer Offline

1.2.30 Reservoir Chlorine Residual (mg/L) - Part 2

September 2024

Reservoir	Rosslyn 1			Londonderry			N. Jasper Place			Rosslyn 2			Thorncliffe			Blackmud Creek		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1				1.52	1.72	1.60	1.41	1.93	1.42	1.58	1.60	1.59	1.54	2.17	1.61	1.43	1.53	1.47
2				1.49	1.68	1.59	1.38	1.93	1.41	1.53	1.58	1.57	1.55	2.13	1.59	1.43	1.54	1.48
3				1.36	1.71	1.52	1.33	1.79	1.36	1.51	1.57	1.56	1.50	2.18	1.57	1.41	1.54	1.46
4				1.35	1.66	1.48				1.48	1.56	1.55	1.53	2.19	1.62	1.37	1.46	1.42
5	--	--	--	1.35	1.68	1.51	1.26	1.95	1.37	1.40	1.52	1.50	1.49	2.20	1.55	1.38	1.46	1.41
6	--	--	--	1.33	1.73	1.49	1.35	1.96	1.38	1.32	1.48	1.47	--	--	--	1.39	1.49	1.44
7	--	--	--	1.34	1.69	1.53	1.39	1.95	1.41	1.46	2.28	1.47	1.47	2.16	1.56	1.42	1.50	1.45
8	--	--	--	1.40	1.70	1.53	1.30	1.96	1.39	1.47	2.20	1.48	1.49	2.17	1.55	1.41	1.50	1.45
9	--	--	--	1.40	1.77	1.62	1.31	1.90	1.32	1.31	1.49	1.46	1.42	2.15	1.45	1.42	1.49	1.45
10	--	--	--	1.37	1.70	1.58	1.32	1.88	1.34	1.30	1.46	1.44	1.44	2.14	1.47	1.40	1.49	1.45
11	--	--	--	1.20	1.66	1.55	1.26	1.84	1.30	1.25	1.43	1.42	1.37	2.21	1.43	1.36	1.45	1.40
12	--	--	--	1.47	1.66	1.58	1.30	1.78	1.32	1.21	1.54	1.26	1.41	2.16	1.46	1.32	1.45	1.38
13	--	--	--	1.44	1.69	1.55	1.35	1.92	1.37	1.11	1.28	1.28	1.50	2.15	1.54	1.38	1.46	1.41
14	--	--	--	1.48	1.67	1.57	1.30	1.97	1.39	1.16	1.28	1.27	1.46	2.16	1.56	1.39	1.56	1.48
15	--	--	--	1.27	1.70	1.58	1.35	1.96	1.38	1.19	1.29	1.27	1.49	2.15	1.54	1.44	1.56	1.50
16	--	--	--	1.49	1.78	1.61	1.26	1.83	1.31	1.24	1.28	1.27	1.42	2.17	1.50	1.43	1.57	1.50
17				1.40	1.73	1.61	1.21	1.93	1.28	1.26	1.92	1.33	1.43	2.17	1.47	1.45	1.56	1.51
18	1.53	1.53	1.53	1.51	1.76	1.62	1.26	1.90	1.28	1.21	1.29	1.28	1.45	2.17	1.48	1.45	1.62	1.54
19				1.48	1.75	1.61	1.22	2.01	1.32	1.24	1.31	1.30	1.54	2.17	1.70	1.50	1.62	1.57
20				1.51	1.74	1.61				1.31	1.62	1.35				1.48	1.62	1.56
21	--	--	--	1.51	1.76	1.65	1.42	2.00	1.46	1.41	1.94	1.45	1.53	2.19	1.56	1.45	1.61	1.53
22	--	--	--	1.51	1.79	1.67	1.48	1.98	1.50	1.42	2.17	1.53	1.57	2.19	1.61	1.44	1.61	1.53
23	--	--	--	1.52	1.81	1.63	1.46	2.03	1.49	1.50	1.95	1.54	1.54	2.18	1.58	1.44	1.63	1.54
24	1.51	1.65	1.63	1.52	1.74	1.65	1.46	1.94	1.49	1.45	1.49	1.46	1.60	2.23	1.68	1.45	1.63	1.55
25	1.54	1.64	1.57	1.41	1.63	1.55	1.39	2.01	1.44	1.32	1.45	1.41	1.53	2.18	1.59	1.51	1.67	1.60
26	1.50	1.54	1.52	1.40	1.55	1.50	1.45	2.03	1.49	1.34	1.39	1.36	1.54	2.17	1.57	1.49	1.68	1.60
27	--	--	--	1.48	1.70	1.62	1.46	2.01	1.48	1.34	1.43	1.41	1.41	2.19	1.53	1.51	1.68	1.62
28	--	--	--	1.50	1.68	1.57	1.53	2.04	1.55	1.37	1.49	1.48	--	--	--	1.50	1.66	1.60
29	--	--	--	1.46	1.74	1.60	1.41	1.99	1.52	1.33	1.54	1.51	1.55	2.20	1.59	1.50	1.65	1.59
30	--	--	--	1.45	1.77	1.64	--	--	--	1.46	1.51	1.49	--	--	--	1.47	1.64	1.58
Monthly Min/Max/Avg	1.50	1.65	1.56	1.20	1.81	1.58	1.21	2.04	1.40	1.11	2.28	1.42	1.37	2.23	1.55	1.32	1.68	1.50

NOTES: '--' Indication Analyzer Offline

1.2.31 Phosphoric Acid Chemical Consumption

September 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.90	0.90	643	916
2	0.90	0.90	637	916
3	0.90	0.90	707	1,049
4	0.90	0.90	652	1,031
5	0.90	0.90	645	891
6	0.90	0.90	659	1,042
7	0.90	0.90	721	1,049
8	0.90	0.90	652	1,020
9	0.90	0.90	722	1,073
10	0.90	0.90	692	1,009
11	0.90	0.90	642	463
12	0.90	0.90	600	974
13	0.90	0.90	612	982
14	0.90	0.90	553	916
15	0.90	0.90	554	850
16	0.90	0.90	576	887
17	0.90	0.90	562	875
18	0.90	0.90	568	929
19	0.90	0.90	623	982
20	0.90	0.90	621	1,040
21	0.90	0.90	641	948
22	0.90	0.90	718	900
23	0.90	0.90	662	744
24	0.90	0.90	681	971
25	--	0.90	--	1,038
26	0.89	0.90	447	1,042
27	0.90	0.90	701	923
28	0.90	0.90	648	1,003
29	0.90	0.90	617	821
30	0.90	0.90	547	986
Monthly Total			18,302	28,270
Monthly Avg	0.90	0.90	631	942

NOTES: ' -- ' indicates plant offline
- Phosphoric acid consumption (kg) at 100% by weight (solution delivered to sites at a concentration of 75%)
- NSF limit for Phosphoric acid (75%) is 13 mg/l

1.2.32 Summary of Mainbreaks

September 2024

Date and Time Reported	Location of Mainbreak	Repaired (Time)	Size	Type**
9/3/2024 20:30	5616-138 AVENUE NW	9/4/2024 0:55	150	CI
9/4/2024 22:14	12201-83 STREET NW	9/5/2024 22:50	300	CI
9/4/2024 22:02	11115-44 STREET NW	9/5/2024 16:30	150	CI
9/4/2024 22:10	11416-50 AVENUE NW	9/5/2024 17:05	200	CI
9/5/2024 16:34	11115-44 STREET NW	9/6/2024 2:00	150	CI
9/5/2024 17:45	11607-81 STREET NW	9/9/2024 6:00	250	CI
9/7/2024 15:03	10310-122 AVENUE NW	9/8/2024 1:29	150	CI
9/8/2024 11:57	12840-132 STREET NW	9/8/2024 23:50	250	CI
9/11/2024 20:43	12541-89 STREET NW	9/14/2024 0:45	200	CI
9/11/2024 21:17	12541-89 STREET NW	9/12/2024 19:07	150	CI
9/12/2024 13:56	7230-89 AVENUE NW	9/14/2024 6:00	200	CI
9/14/2024 0:45	12535-89 STREET NW	9/14/2024 0:56	200	CI
9/15/2024 22:13	9803-165 STREET NW	9/16/2024 22:00	200	CI
9/17/2024 16:13	12541-89 STREET NW	9/18/2024 23:20	200	CI
9/22/2024 9:30	10239-81 STREET NW	9/23/2024 0:19	150	CI
9/22/2024 15:59	11842-104 AVENUE NW	9/24/2024 5:25	200	CI
9/23/2024 13:57	10615-71 AVENUE NW	9/25/2024 21:00	300	AC
9/29/2024 2:09	13317-115 AVENUE NW	9/29/2024 17:45	250	CI
9/29/2024 20:51	10079-JASPER AVENUE NW	9/30/2024 19:28	200	CI

Month	Total Breaks By Month
Jan-24	35
Feb-24	28
Mar-24	13
Apr-24	18
May-24	10
Jun-24	8
Jul-24	11
Aug-24	16
Sep-24	19
Oct-24	
Nov-24	
Dec-24	
YTD 2024	**158**

**Pipe Type Explanation	
CI	Cast Iron Pipe
COP	Copper Pipe
CCP	Concrete Cylinder Pipe
PVC	Poly Vinyl Chloride Pipe
AC	Asbestos Cement Pipe
HPLCP	Hyperscon Cylinder Prestressed Lined Concrete Cylinder Pipe
FRP	Fibre Glass Pipe
STL	Steel Pipe
HDP	High Density Polyethylene

Water Quality 2024

2.1.1 Water Quality Objectives for EPCOR

Parameter	Approval Requirement	EPCOR Internal Limit	EPCOR Target
Turbidity (NTU)			
Individual Filters	<0.3	<0.1 (2)	<0.08
Distribution System	N/A	< 1 (1)	< 1
Distribution System (Maintenance)	N/A	< 3 (1)	< 1
Colour (TCU)	<15 (3)	<10 (1)	<3
pH (25°C)	6.5 - 8.5	7.3 - 8.3 (1)	7.4 - 8.0
Taste and Odour	Inoffensive (3)	Inoffensive (1)	Inoffensive
E.coli (PA/100 mL)	absent	absent (1)	absent
Total Coliforms (PA/100 mL)	absent	absent (1)	absent
Total Chlorine Residual (mg/L)			
Water Treatment Plant Effluent	>1.0	1.3 - 2.4 (2)	1.9 - 2.2
Reservoirs	>0.5	1.0 - 2.4 (1)	1.2 - 2.2
Distribution	>0.5 (4)	1.0 - 2.4 (1)	1.0 - 2.2
Fluoride: (mg/L)			
Reservoir Effluent	0.5 - 0.9	0.6 - 0.8 (1)	0.6 - 0.8
Trihalomethanes (mg/L)			
Reservoir Effluent	<0.100	<0.050 (1)	<0.040
Distribution System	<0.100	<0.050 (1)	<0.040
UV254 % Transmittance			
E.L. Smith		>89% (2)	>90%
Rossdale		>87% (2)	>88%
HAA (mg/L)			
Reservoir Effluent	< 0.080	< 0.040 (1)	<0.035
Distribution System	< 0.080	< 0.040 (1)	<0.035
NDMA (mg/L):			
Reservoir Effluent	< 0.000040	< 0.000010 (1)	<0.000005
Distribution System	< 0.000040	< 0.000010 (1)	
Microoganism Log Removal at Water			
Giardia	≥5.5	≥6.0 (2)	>6.5
Cryptosporidium	≥5.5	≥5.3 (2)	>6.0
Virus	≥4.0	≥4.5 (2)	>5.0

(1) Limit based on City of Edmonton Performance Based Rate (PBR) agreement
(2) Limit based on EPCOR Action Level
(3) Aesthetic Objective
(4) in 75% of samples collected in a day
All values are expressed in units of mg/L unless otherwise stated.
Based on March 2024 Summary of Epcor Edmonton Water Quality Standards.

2.1.2 SUMMARY OF MAJOR CHEMICALS, MICROBIOLOGICAL, AND PHYSICAL PARAMETERS OF EDMONTON DRINKING WATER PRODUCED AT WATER TREATMENT PLANTS

September 2024

Parameter	Unit	Monthly Count	Monthly Average	YTD Median	YTD Min	YTD Max	YTD Count
Alkalinity Total	mg CaCO3/L	59	116	118	8	141	543
Aluminum	mg/L	2	0.121	0.047	0.023	0.122	18
Arsenic	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	18
Bromate Dissolved	mg/L	8	<0.005	<0.005	<0.005	<0.005	78
Bromodichloromethane	µg/L	23	1.1	1.1	<0.5	2.6	508
Cadmium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	18
Calcium Hardness	mg/L CaCO3	57	117	116	96	141	533
Chlorate Dissolved	mg/L	8	0.170	0.183	<0.100	0.332	78
Chloride Dissolved	mg/L	8	6.44	6.35	4.78	12.10	78
Chlorite Dissolved	mg/L	8	<0.01	<0.20	<0.20	<0.20	78
Chromium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	18
Colour	TCU	59	1.0	0.9	<0.5	1.9	543
Conductivity	µS/cm	8	395	402	342	453	78
Copper	mg/L	2	<0.0020	<0.0050	<0.0050	<0.0050	18
Cryptosporidium	oocysts/100L	2	<0.1	<0.1	<0.1	<0.1	14
Fluoride	mg/L	59	0.69	0.68	0.61	0.79	543
Giardia	cysts/100L	2	<0.1	<0.1	<0.1	<0.1	14
Iron	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	18
Lead	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	18
Manganese	mg/L	2	<0.0020	<0.0020	<0.0020	<0.0020	18
Mercury	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	18
Nitrate (as N) Dissolved	mg/L	8	0.013	0.040	<0.010	0.170	78
Nitrite (as N) Dissolved	mg/L	8	<0.01	<0.01	<0.01	0.02	78
pH	N/A	59	7.8	7.9	7.5	8.3	544
Potassium	mg/L	2	0.74	0.80	0.70	1.10	18
Sodium	mg/L	2	8.43	11.15	6.80	18.90	18
Sulphate Dissolved	mg/L	8	73.5	73.1	59.5	95.1	78
Total Chlorine	N/A	59	2.27	2.17	1.87	2.40	543
Total Dissolved Solids	mg/L	2	225	233	195	252	18
Total Hardness	mg/L CaCO3	57	177	177	145	218	533
Total Organic Carbon	mg/L C	8	1.6	1.4	0.9	2.8	78
Trihalomethanes	µg/L	23	24.7	17.6	5.1	39.9	508
Turbidity	NTU	59	0.05	<0.04	<0.04	0.21	543
Uranium	mg/L	2	<0.0005	<0.0005	<0.0005	0.0006	18
Zinc	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	18
Bacteriological Data							
Coliforms, total	PA/100mL	59	Absent	Absent	Absent	Absent	543
E. coli	PA/100mL	59	Absent	Absent	Absent	Absent	543

2.1.3 SUMMARY OF LABORATORY ANALYSIS - 2024

DISTRIBUTION OF TESTING

Drinking Water Testing

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	**Total**
Water Treatment Plant	# Tests	10,442	9,566	10,736	10,143	9,855	10,053	10,306	10,156	6,169	87,426
	# Samples	261	248	326	269	264	260	268	273	257	2,426
Field Reservoirs	# Tests	1,936	1,721	1,695	1,883	1,734	2,006	2,225	1,917	1,779	16,896
	# Samples	63	52	52	65	49	53	66	54	52	506
Routine Distribution System	# Tests	2,740	2,879	2,734	2,845	2,901	2,692	2,424	2,401	2,142	23,758
	# Samples	146	153	146	153	144	124	99	106	103	1,174
System Depressurization/Repair	# Tests	1,050	720	555	675	660	630	628	480	723	6,121
	# Samples	70	48	37	45	44	42	42	32	48	408
Customer Complaints	# Tests	1,395	651	1,209	1,488	1,023	1,209	1,009	1,731	952	10,667
	# Samples	15	7	13	16	11	13	11	19	13	118
Total	# Tests	17,563	15,537	16,929	17,034	16,173	16,590	16,592	16,685	11,765	144,868
	# Samples	555	508	574	548	512	492	486	484	473	4,632

Additional Testing

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	**Total**
New Watermain Testing	# Tests	80	30	0	10	135	160	495	275	305	1,490
	# Samples	17	6	0	2	27	32	99	55	61	299
Water Treatment Plant Waste Discharge	# Tests	168	43	173	117	300	327	284	595	68	2,075
	# Samples	56	33	36	45	55	51	50	52	34	412
Quality Control	# Tests	5,961	6,042	6,091	5,937	6,055	6,793	8,719	8,020	5,721	59,339
	# Samples	1,187	1,056	1,193	1,186	1,244	1,418	1,629	1,747	1,581	12,241
Distribution Water Enhanced Surveillance	# Tests	0	0	0	0	0	540	1,337	1,091	960	3,928
	# Samples	0	0	0	0	0	20	53	45	40	158
Externally Contracted Analyses	# Tests	405	672	316	307	949	798	832	595	7,210	12,084
	# Samples	134	120	157	136	140	122	139	130	240	1,318
Total	# Tests	6,614	6,787	6,580	6,371	7,439	8,618	11,667	10,576	14,264	78,916
	# Samples	1,394	1,215	1,386	1,369	1,466	1,643	1,970	2,029	1,956	14,428

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	**Total**
Total	# Tests	24,177	22,324	23,509	23,405	23,612	25,208	28,259	27,261	26,029	223,784
	# Samples	1,825	1,611	1,848	1,793	1,842	2,022	2,327	2,399	2,198	17,865

2.1.4 QUALITY ASSURANCE – September 2024

Drinking water quality must meet the requirements in the Alberta Environment and Protected Areas *Approval-to-Operate* (638-04-01) and the limits set out in the latest version of the Health Canada *Guidelines for Canadian Drinking Water Quality (GCDWQ)*. The latest internet edition of the *GCDWQ* was issued in August 2024 and supersedes all previous electronic and printed versions, including the Sixth Edition published in 1996. Guideline limits are listed as Maximum Acceptable Concentrations (MACs), Aesthetic Objectives (AO) or Operational Guidelines (OG). The latest edition of the Health Canada Guidelines includes parameter types, commons sources, health considerations and application of the guideline.
In addition, for treated water in the distribution system, total chlorine residual values under 0.5 mg/L are not necessarily violations of the approval, but do require immediate follow-up action and resampling. A violation of the current *Approval-to-Operate* (638-04-01) requirements occurs if the chlorine residual in more than 25% of samples collected in a day is < 0.5 mg/L. Alberta Environment and Protected Areas is to be notified of any single positive total coliform sample and follow-up sampling is done according to the *Communication and Action Protocol for Failed Bacteriological Results in Drinking Water*. Any sample that is positive for *E. coli* is also considered a violation and requires follow-up action and re-sampling. A repeat total coliform positive from the same location is also considered a violation

Critical water quality parameters (e.g. turbidity, residual chlorine, fluoride, pH, & particle counts) in the treated water are monitored continuously using on-line instruments at the water treatment plants. In addition, water quality samples are collected daily at the two Water Treatment Plants, and 180 to 300 samples per month are collected throughout the distribution system (routine and random sampling sites, reservoirs, following system depressurizations and in response to customer complaints).

The EPCOR Water Laboratory is nationally accredited by CALA (Canadian Association for Laboratory Accreditation) to ISO/IEC 17025 for specific water quality analyses, and it also provides quality assurance support for Water Plant Operations labs and on-line analytical monitoring.

"*Violations*" occur when the concentrations of a measured parameter exceeds the AEP *Approval-to-Operate* limits, including the MACs for the GCDWQ parameters listed Schedule 4.

"Variances" occur when the concentration of a measured parameter exceeds EPCOR's own internal water quality objectives. See section 2.1.1 of this report for EPCOR's internal water quality objectives.

2.1.4.1 **Total Water Quality Violations of AEP Approval-to-Operate:**

Current month: **0** YTD Total: **3**

2.1.4.2 **Water Quality Violations for Water Plants (Treated Water)**

Current month**: 0** YTD Total**: 0**

2.1.4.3 **Water Quality Violations (Environmental): Plants Waste Streams**

Current month**: 0** YTD Total**: 0**

2.1.4.4 **Violations for Water Quality in the Field Reservoirs and Distribution System**

Sample Type	This Month	YTD
Depressurization Samples	0	1
Complaint Samples	0	0
Random Samples	0	2
Reservoirs	0	0
TOTAL (Distribution)	0	3

2.1.4.5 **Variances from EPCOR Water Services Water Quality Objectives at the Water Treatment Plants**

Variance Category[1]	This Month	YTD
Aluminium[2] > 0.20 or 0.10 mg/L	2	2
Turbidity > 1 NTU	0	0
Chlorine < 1 mg/L or > 2.4 mg/L	0	0
Cryptosporidium ≥ 1/1000 L	0	0
Giardia ≥ 1/1000 L	0	0
Other	0	2
Total Variances + Violations	2 + 0 = 0	4 + 0 = 0

Notes: 1) Variance statistics include any violations.

2) As of January 15, 2024 both ELS and ROS WTP converted back to Conventional Filtration mode. Aluminium limit changes from 0.1 mg/L to 0.2 mg/L (operational guideline), when in Direct Filtration.

2.1.4.6 **Variances from EPCOR Water Services Water Quality Objectives in the Field Reservoirs and Distribution System**

Variance Category[1]	This Month	YTD
Turbidity > 1 NTU	17	128
Chlorine < 1 mg/L or > 2.4 mg/L	4	14
Single Positive Coliform	0	9
THMs > 50 µg/L	0	0
Pipe Lube, Odour, UV positive	0	1
Aluminium[2] > 0.20 (or 0.1) mg/L	3	30
Iron > 0.300 mg/L	1	5
Other	0	3
Total Variances + Violations	25 + 0 = 25	190 + 3 = 193

Notes: 1) Variance statistics include any violations.
2) As of January 15, 2024 both ELS and ROS WTP converted back to Conventional Filtration mode. Aluminium limit changes from 0.1 mg/L to 0.2 mg/L (operational guideline), when in Direct Filtration.

2.1.4.7 **Variances from EPCOR Water Services Water Quality Objectives (Lab Waste Streams)**

No variances to report for lab waste streams.

2.2.1 Bacteriological Data: Water Treatment Plants

2024

	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			133	1	517			13	1	40	1	44.7	44.7	44.7
E.L. Smith Raw (MPN/100mL)	5			41	28	53			2	1	3	1	14.2	14.2	14.2
Raw River Water Entering the Treatment Plants	37			121	1	517			11	1	40	2	29.4	14.2	44.7
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.44	0.10	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.50	0.12	1.00
Water Entering the Plant Reservoir	61	0	0.0				0	0.0				61	0.47	0.10	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.45	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.52	0.10	1.00
Treated Water Entering the Distribution System	61	0	0.0				0	0.0				61	0.49	0.10	1.00
February															
Rossdale Raw (MPN/100mL)	29			144	1	816			12	1	44	1	17.0	17.0	17.0
E.L. Smith Raw (MPN/100mL)	4			18	12	28			1	1	2	1	11.8	11.8	11.8
Raw River Water Entering the Treatment Plants	33			129	1	816			10	1	44	2	14.4	11.8	17.0
Rossdale Treated (PA/100mL)	28	0	0.0				0	0.0				28	0.73	0.11	1.00
E.L. Smith Treated (PA/100mL)	29	0	0.0				0	0.0				29	0.64	0.11	1.48
Water Entering the Plant Reservoir	57	0	0.0				0	0.0				57	0.69	0.11	1.48
Rossdale Reservoir (PA/100mL)	28	0	0.0				0	0.0				28	0.74	0.11	1.00
E.L. Smith Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.68	0.11	1.00
Treated Water Entering the Distribution System	57	0	0.0				0	0.0				57	0.71	0.11	1.00

2.2.1 Bacteriological Data: Water Treatment Plants

2024

	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			1,469	1	13,700			87	1	1,760	1	293	293	293
E.L. Smith Raw (MPN/100mL)	4			2,505	8	9,770			16	1	62	1	60.7	60.7	60.7
Raw River Water Entering the Treatment Plants	36			1,584	1	13,700			79	1	1,760	2	177	60.7	293
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.70	0.12	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.77	0.13	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.74	0.12	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.71	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.67	0.11	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.69	0.10	1.00
April															
Rossdale Raw (MPN/100mL)	31			208	1	1,120			9	1	58	1	92.2	92.2	92.2
E.L. Smith Raw (MPN/100mL)	4			353	91	980			2	1	5	1	126	126	126
Raw River Water Entering the Treatment Plants	35			225	1	1,120			8	1	58	2	109	92.2	126
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.66	0.14	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.57	0.10	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.61	0.10	1.00
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.58	0.11	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.56	0.10	1.00
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.57	0.10	1.00

2.2.1 Bacteriological Data: Water Treatment Plants

2024

	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)	30			174	1	517			16	1	63	1	121	121	121
E.L. Smith Raw (MPN/100mL)	5			194	43	276			9	2	22	1	99.6	99.6	99.6
Raw River Water Entering the Treatment Plants	35			177	1	517			15	1	63	2	110	99.6	121
Rossdale Treated (PA/100mL)	29	0	0.0				0	0.0				29	0.49	0.10	1.02
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.44	0.11	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.46	0.10	1.02
Rossdale Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.50	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.42	0.11	1.00
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.46	0.10	1.00
June															
Rossdale Raw (MPN/100mL)	31			158	1	1,410			8	1	45	1	77.0	77.0	77.0
E.L. Smith Raw (MPN/100mL)	4			131	48	249			7	2	15	1	66.5	66.5	66.5
Raw River Water Entering the Treatment Plants	35			155	1	1,410			8	1	45	2	71.8	66.5	77.0
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.66	0.14	1.00
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.61	0.10	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	0.64	0.10	1.00
Rossdale Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.73	0.12	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.71	0.10	1.03
Treated Water Entering the Distribution System	60	0	0.0				0	0.0				60	0.72	0.10	1.03

2.2.1 Bacteriological Data: Water Treatment Plants

2024

	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			1,838	179	22,400			51	1	538	1	80.6	80.6	80.6
E.L. Smith Raw (MPN/100mL)	5			912	162	1,990			38	1	115	1	50.6	50.6	50.6
Raw River Water Entering the Treatment Plants	36			1,709	162	22,400			50	1	538	2	65.6	50.6	80.6
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.89	0.12	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.89	0.12	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.89	0.12	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.91	0.10	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.86	0.11	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.89	0.10	1.00
August															
Rossdale Raw (MPN/100mL)	32			1,548	1	11,600			156	1	1,450	1	56.3	56.3	56.3
E.L. Smith Raw (MPN/100mL)	9			504	218	1,300			25	11	77	1	59.6	59.6	59.6
Raw River Water Entering the Treatment Plants	41			1,319	1	11,600			128	1	1,450	2	57.9	56.3	59.6
Rossdale Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.97	0.11	1.00
E.L. Smith Treated (PA/100mL)	31	0	0.0				0	0.0				31	0.94	0.12	1.00
Water Entering the Plant Reservoir	62	0	0.0				0	0.0				62	0.96	0.11	1.00
Rossdale Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.97	0.13	1.00
E.L. Smith Reservoir (PA/100mL)	31	0	0.0				0	0.0				31	0.97	0.10	1.00
Treated Water Entering the Distribution System	62	0	0.0				0	0.0				62	0.97	0.10	1.00

2.2.1 Bacteriological Data: Water Treatment Plants

2024

	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			373	1	1,414			25	1	124	1	29.3	29.3	29.3
E.L. Smith Raw (MPN/100mL)	4			215	53	579			17	6	34	0			
Raw River Water Entering the Treatment Plants	34			354	1	1,414			24	1	124	1	29.3	29.3	29.3
Rossdale Treated (PA/100mL)	30	0	0.0				0	0.0				30	1.47	0.11	18.5
E.L. Smith Treated (PA/100mL)	30	0	0.0				0	0.0				30	0.71	0.10	1.00
Water Entering the Plant Reservoir	60	0	0.0				0	0.0				60	1.09	0.10	18.5
Rossdale Reservoir (PA/100mL)	29	0	0.0				0	0.0				29	0.94	0.12	1.00
E.L. Smith Reservoir (PA/100mL)	30	0	0.0				0	0.0				30	0.86	0.12	1.00
Treated Water Entering the Distribution System	59	0	0.0				0	0.0				59	0.90	0.12	1.00

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

2.2.2 Bacteriological Data: Distribution System

2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
January									
Complaint Water	15	0	0.0	0	0.0	15	0.36	0.14	1.50
FIELD DISTRIBUTION	146	0	0.0	0	0.0	55	0.28	0.11	0.86
FIELD DISTRIBUTION - PLPH	55	1	1.8	0	0.0				
FIELD RESERVOIR	63	0	0.0	0	0.0	63	0.36	0.11	1.26
FIELD RESERVOIR - PLPH (duplicate-not counted)	63	0	0.0	0	0.0				
Monthly	224	1	0.4	0	0.0	133	0.33	0.11	1.50
February									
Complaint Water	7	0	0.0	0	0.0	7	0.17	0.12	0.32
FIELD DISTRIBUTION	153	0	0.0	0	0.0	54	0.21	0.10	1.09
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.20	0.10	0.51
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	212	0	0.0	0	0.0	113	0.20	0.10	1.09
March									
Complaint Water	13	0	0.0	0	0.0	13	0.18	0.11	0.42
FIELD DISTRIBUTION	146	0	0.0	0	0.0	54	0.28	0.11	0.96
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.23	0.10	0.80
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	211	0	0.0	0	0.0	119	0.25	0.10	0.96
April									
Complaint Water	16	0	0.0	0	0.0	16	0.35	0.12	0.75
FIELD DISTRIBUTION	153	1	0.7	0	0.0	55	0.29	0.10	2.48
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	65	0	0.0	0	0.0	65	0.35	0.10	1.67
FIELD RESERVOIR - PLPH (duplicate-not counted)	64	0	0.0	0	0.0				
Monthly	234	1	0.4	0	0.0	136	0.33	0.10	2.48

2.2.2 Bacteriological Data: Distribution System

2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
May									
Complaint Water	11	0	0.0	0	0.0	11	0.27	0.10	0.49
FIELD DISTRIBUTION	144	0	0.0	0	0.0	54	0.43	0.12	1.46
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	49	0	0.0	0	0.0	49	0.58	0.10	2.93
FIELD RESERVOIR - PLPH (duplicate-not counted)	49	0	0.0	0	0.0				
Monthly	204	0	0.0	0	0.0	114	0.47	0.10	2.93
June									
Complaint Water	13	0	0.0	0	0.0	13	0.39	0.11	0.91
FIELD DISTRIBUTION	124	0	0.0	0	0.0	58	0.39	0.11	0.93
FIELD DISTRIBUTION - PLPH	54	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.49	0.10	3.85
FIELD RESERVOIR - PLPH (duplicate-not counted)	51	0	0.0	0	0.0				
Monthly	189	0	0.0	0	0.0	123	0.43	0.10	3.85
July									
Complaint Water	11	0	0.0	0	0.0	11	0.64	0.24	1.66
FIELD DISTRIBUTION	99	2	2.0	0	0.0	59	0.19	0.11	0.41
FIELD DISTRIBUTION - PLPH	58	0	0.0	0	0.0				
FIELD RESERVOIR	66	0	0.0	0	0.0	66	0.52	0.11	2.40
FIELD RESERVOIR - PLPH (duplicate-not counted)	65	0	0.0	0	0.0				
Monthly	176	2	1.1	0	0.0	136	0.37	0.11	2.40
August									
Complaint Water	19	0	0.0	0	0.0	19	4.04	0.10	42.04
FIELD DISTRIBUTION	105	0	0.0	0	0.0	63	0.28	0.11	1.69
FIELD DISTRIBUTION - PLPH	56	0	0.0	0	0.0				
FIELD RESERVOIR	53	0	0.0	0	0.0	53	0.59	0.10	4.37
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	177	0	0.0	0	0.0	135	0.88	0.10	42.04

2.2.2 Bacteriological Data: Distribution System

2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
September									
Complaint Water	13	0	0.0	0	0.0	13	0.48	0.14	1.12
FIELD DISTRIBUTION	104	0	0.0	0	0.0	61	0.31	0.10	1.08
FIELD DISTRIBUTION - PLPH	58	0	0.0	0	0.0				
FIELD RESERVOIR	52	0	0.0	0	0.0	52	0.56	0.10	2.76
FIELD RESERVOIR - PLPH (duplicate-not counted)	52	0	0.0	0	0.0				
Monthly	169	0	0.0	0	0.0	126	0.42	0.10	2.76
Year to Date	2,293	4	0.2	0	0.0	1,135	0.42	0.10	42.04

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

2024

	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	15	0	0.0	0	0.0	15	0.36	0.14	1.50
February	7	0	0.0	0	0.0	7	0.17	0.12	0.32
March	13	0	0.0	0	0.0	13	0.18	0.11	0.42
April	16	0	0.0	0	0.0	16	0.35	0.12	0.75
May	11	0	0.0	0	0.0	11	0.27	0.10	0.49
June	13	0	0.0	0	0.0	13	0.39	0.11	0.91
July	11	0	0.0	0	0.0	11	0.64	0.24	1.66
August	19	0	0.0	0	0.0	19	4.04	0.10	42.04
September	13	0	0.0	0	0.0	13	0.48	0.14	1.12
Year to Date	118	0	0.0	0	0.0	118	0.89	0.10	42.04
Samples from Depressurizations									
January	70	0	0.0	0	0.0				
February	48	0	0.0	0	0.0				
March	37	0	0.0	0	0.0				
April	45	0	0.0	0	0.0				
May	44	0	0.0	0	0.0				
June	42	0	0.0	0	0.0				
July	42	0	0.0	0	0.0				
August	32	0	0.0	0	0.0				
September	48	0	0.0	0	0.0				
Year to Date	408	0	0.0	0	0.0				

2.2.3 Giardia and Cryptosporidium

2024

Treated Water entering the distribution system

	Cryptosporidium oocysts/100L		Giardia cysts/100L	
	E.L. Smith	Rossdale	E.L. Smith	Rossdale
23 - Jan		<0.1		<0.1
	<0.09		<0.09	
12 - Feb		<0.1		<0.1
	<0.09		<0.09	
21 - Mar		<0.1		<0.1
	<0.1		<0.1	
15 - Apr	<0.1		<0.1	
16 - Apr		<0.1		<0.1
13 - May	<0.1		<0.1	
14 - May		<0.1		<0.1
11 - Jun	<0.1		<0.1	
12 - Jun		<0.1		<0.1
11 - Jul		<0.1		<0.1
	<0.1		<0.1	
1 - Aug		<0.1		<0.1
	<0.1		<0.1	
9 - Sep		<0.1		<0.1
10 - Sep	<0.09		<0.09	
16 - Sep		<0.1		<0.1
17 - Sep	<0.1		<0.1	
23 - Sep		<0.09		<0.09
24 - Sep	<0.09		<0.09	

Raw Water

	Cryptosporidium oocysts/100L		Giardia cysts/100L	
	E.L. Smith	Rossdale	E.L. Smith	Rossdale
23 - Jan		<6.93		<6.93
	<1.28		<1.28	
12 - Feb		<39.6		158.4
	<1		9	
21 - Mar		5.5		39.0
	<4.2		8.3	
15 - Apr	13.0		13.0	
16 - Apr		<23.0		23.0
13 - May	<13.0		26.0	
14 - May		<14.0		14.0
11 - Jun	<3.7		<3.7	
12 - Jun		<2.6		7.8
11 - Jul		<9.5		9.5
	19.0		19.0	
1 - Aug		2.4		23.0
	<2.5		5.0	
9 - Sep		<3.89		<3.89
10 - Sep	<6.62		6.6	
16 - Sep		9.0		86.0
17 - Sep	<6.5		6.5	
23 - Sep		<0.99		3
24 - Sep	<1		7	

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Microbiologicals																		
Microcystin				0				0	<0.2	<0.2	<0.2	3	<0.2	<0.2	<0.2	3	1.5	
Physical																		
Colour (TCU)	0.9	0.6	1.3	29	1.0	<0.5	1.6	30	0.9	<0.5	1.9	270	1.0	<0.5	1.8	273	(15)	10
Conductivity (uS/cm)	393	381	418	4	397	380	424	4	396	342	439	39	405	351	453	39		<1
FPA-Intensity (N/A)	0.81	0.62	0.94	4	0.89	0.56	1.06	4	1.13	0.62	1.88	49	1.02	0.56	2.12	49		
pH (N/A)	7.9	7.8	8.1	29	7.8	7.5	7.9	30	7.9	7.7	8.3	271	7.8	7.5	8.2	273	(7.0 - 10.5)	7.3-8.3
Total Dissolved Solids (mg/L)	244	244	244	1	213	213	213	1	230	195	252	9	232	213	250	9	(500)	
Turbidity (NTU)	<0.04	<0.04	0.05	29	0.06	<0.04	0.21	30	<0.04	<0.04	0.08	270	0.05	<0.04	0.21	273		0.3
Primary Inorganics (mg/L)																		
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	9	<0.0004	<0.0002	<0.0005	9	0.006	
Arsenic	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0002	9	<0.0002	<0.0002	0.0002	9	0.01	
Barium	0.064	0.064	0.064	1	0.065	0.065	0.065	1	0.062	0.050	0.073	9	0.061	0.049	0.072	9	2	
Boron	0.010	0.010	0.010	1	0.010	0.010	0.010	1	0.010	0.009	0.012	9	0.010	0.008	0.012	9	2	
Bromate, dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.003	<0.005	39	<0.005	<0.003	<0.005	39	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	9	<0.0002	<0.0002	<0.0002	9	0.007	
Chlorate Dissolved	0.22	0.19	0.23	4	0.14	0.13	0.16	4	0.24	0.18	0.33	39	0.11	<0.05	0.23	39	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.025	<0.005	<0.200	39	<0.025	<0.005	<0.200	39	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	9	<0.0002	<0.0002	<0.0002	9	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	9	<0.003	<0.002	<0.005	9	2 (1)	
Fluoride	0.66	0.61	0.69	29	0.71	0.68	0.73	30	0.68	0.61	0.76	270	0.69	0.62	0.79	273	1.5	0.6–0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	9	<0.0002	<0.0002	<0.0002	9	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	9	<0.002	<0.002	<0.002	9	0.12 (0.02)	
Mercury	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00020	<0.0002	1	<0.0010	<0.00005	<0.0050	12	<0.0010	<0.00005	<0.0050	12	0.001	
Nitrate (as N) Dissolved	<0.01	<0.01	0.02	4	<0.01	<0.01	0.02	4	0.05	<0.01	0.17	39	0.05	<0.01	0.17	39	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.010	<0.010	<0.010	4	<0.010	<0.005	0.020	39	<0.010	<0.005	0.020	39	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0004	9	0.0003	0.0002	0.0003	9	0.05	
Total Chlorine	2.27	2.15	2.38	29	2.26	2.02	2.35	30	2.19	1.91	2.40	270	2.14	1.87	2.35	273	>1.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0006	9	<0.0005	<0.0005	0.0005	9	0.02	

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Primary Organics (ug/L)																		
2,4-D				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3	100	
Atrazine				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3	5	
Benzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.6	271	<0.5	<0.5	<0.5	273	5	
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3	0.04	
Bromoxynil				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<1.0	254	<0.5	<0.5	<1.0	254	2	
Chlorobenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	80 (30)	
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3	90	
Cyanazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Diazinon				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3		
Dicamba				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	253	<0.5	<0.5	<0.5	253	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<3.0	254	<0.5	<0.5	<3.0	254	14	
Dichlorophenol (2,4)				0				0	<0.2	<0.2	<0.3	3	<0.2	<0.2	<0.3	3		
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Dimethoate				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3	20	
Diuron				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3		
Ethylbenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	140 (1.6)	
Glyphosate				0				0	<0.3	<0.2	<0.5	3	<0.3	<0.2	<0.5	3	280	
Haloacetic Acids, (HAA5)	21.8	21.8	21.8	1	23.3	23.3	23.3	1	24.1	16.3	47.1	9	23.1	13.7	42.3	9	80	40
Malathion				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3	190	
MCPA				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3	100	
Methylene Chloride	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254	50	
Metolachlor				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3		
Metribuzin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3	80	
NDMA	<0.0039	<0.0039	<0.0039	1	<0.0032	<0.0032	<0.0032	1	<0.0028	<0.0009	<0.0060	9	<0.0024	<0.0009	<0.0060	9	0.040	10
NTA (mg/L)				0				0	<0.4	<0.4	<0.4	3	<0.4	<0.4	<0.4	3	0.4	
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3	0.6	
Perfluorooctanoic acid (PFOA)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3	0.0002	
Phorate				0				0	<0.25	<0.25	<0.25	3	<0.25	<0.25	<0.25	3		
Picloram				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3		
Simazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Terbufos				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3		
Tetrachloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	10	
Toluene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.6	271	<0.5	<0.5	3.3	273	60 (24)	

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Primary Organics (ug/L)																		
Total Xylenes	<1.0	<1.0	<1.0	12	<1.0	<1.0	<1.0	11	<1.0	<1.0	<2.5	254	<1.0	<1.0	<2.5	254	90	
Trichloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	5	
Trifluralin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Trihalomethanes	24.4	14.9	32.9	12	25.0	11.6	33.9	11	19.7	6.6	39.9	254	18.6	5.1	39.5	254	100	50
Vinyl Chloride	<0.7	<0.5	<1.0	29	<0.7	<0.5	<1.0	30	<1.0	<0.5	<1.0	270	<1.0	<0.5	<1.0	272	2	
Radionuclides (Bq/L)																		
Cesium-137				0				0	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	10	
Gross Alpha				0				0	<0.12	<0.12	<0.12	1	<0.15	<0.15	<0.15	1	(0.5)	
Gross Beta				0				0	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	(1.0)	
Iodine-131				0				0	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	6	
Lead-210				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	0.2	
Radium-226				0				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.5	
Strontium-90				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	5	
Tritium				0				0	<40	<40	<40	1	<40	<40	<40	1	7000	

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L)																		
Alkalinity Total (mg CaCO3/L)	116	112	121	29	116	111	124	30	117	99	141	270	118	8	140	273		
Aluminum	0.122	0.122	0.122	1	0.120	0.120	0.120	1	0.059	0.023	0.122	9	0.055	0.026	0.120	9	2.9	0.1/0.2
Ammonia as NH3	0.12	0.09	0.15	14	0.12	0.10	0.15	14	0.13	0.08	0.17	89	0.12	0.08	0.17	89		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	9	<0.0002	<0.0002	<0.0002	9		
Bromide Dissolved	<0.03	<0.03	<0.03	4	<0.03	<0.03	<0.03	4	<0.02	<0.01	<0.05	39	<0.02	<0.01	<0.05	39		
Calcium	47.6	47.6	47.6	1	47.5	47.5	47.5	1	47.2	43.7	51.3	9	47.3	44.2	51.4	9		
Calcium Hardness Calculated	119	119	119	1	119	119	119	1	117	109	125	5	116	110	124	5		
Chloride Dissolved	5.33	4.80	6.06	4	7.17	6.64	7.93	4	6.21	4.78	11.40	39	7.02	4.85	12.10	39	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	9	<0.0002	<0.0002	<0.0002	9		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	9	<0.07	<0.07	<0.07	9		
Hardness, Ca (mg CaCO3/L)	117	112	122	28	116	112	121	29	117	98	141	265	116	96	138	268		
Iron	0.005	0.005	0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	0.005	9	<0.005	<0.005	<0.005	9	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	9	<0.001	<0.001	<0.001	9		
Lithium	0.0040	0.0040	0.0040	1	0.004	0.004	0.004	1	0.0038	0.0031	0.0043	9	0.003	0.003	0.004	9		
Magnesium	14.3	14.3	14.3	1	14.4	14.4	14.4	1	13.7	12.6	15.0	9	13.8	12.6	15.1	9		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0008	0.0008	1	0.0009	0.0007	0.0010	9	0.0008	0.0007	0.0009	9		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	9	<0.0005	<0.0005	0.0005	9		
Phosphate,Ortho (as P)	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	2	<0.02	<0.02	<0.02	18	<0.02	<0.02	<0.02	16		
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	9	<0.02	<0.02	<0.02	9		
Potassium	0.8	0.8	0.8	1	0.7	0.7	0.7	1	0.8	0.7	1.1	9	0.8	0.7	1.0	9		
Silicon	1.77	1.77	1.77	1	1.76	1.76	1.76	1	2.01	1.58	2.27	9	2.00	1.64	2.27	9		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	9	<0.0002	<0.0002	<0.0002	9		
Sodium	7.7	7.7	7.7	1	8.9	8.9	8.9	1	10.5	6.8	16.1	9	13.4	7.4	18.9	9	(200)	
Strontium	0.440	0.440	0.440	1	0.444	0.444	0.444	1	0.440	0.385	0.488	9	0.438	0.408	0.478	9	7.0	
Sulphate Dissolved	72.9	68.2	83.4	4	73.8	68.0	84.5	4	72.7	59.5	86.8	39	75.4	60.4	95.1	39	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	9	<0.0003	<0.0002	<0.0005	9		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	9	<0.0005	<0.0005	<0.0005	9		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	9	<0.0005	<0.0005	<0.0005	9		
Total Hardness (mg/L CaCO3)	178	170	185	28	177	170	185	29	177	149	218	265	176	145	211	268		
Total Hardness Calculated	178	178	178	1	178	178	178	1	172	162	182	5	172	162	180	5		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	9	<0.0005	<0.0005	<0.0005	9		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	9	<0.005	<0.005	<0.005	9	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	9	<0.001	<0.001	<0.001	9		

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L)																		
Aldicarb				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Aldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3		
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Bromochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	9	<1	<1	<1	9		
Bromodichloromethane	1.1	0.8	1.4	29	1.0	0.7	1.7	30	1.2	<0.5	2.6	271	1.0	<0.5	2.4	273		16
Bromoform	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	271	<0.5	<0.5	<1.0	273		
Bromomethane	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19		
Carbaryl				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3		
Carbofuran				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3		
Chloroethane	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19		
Chloroform	25.9	13.50	31.7	29	26.4	10.50	32.5	30	18.8	5.70	38.7	271	18.0	4.30	37.7	273		
Chloromethane	<5	<5	<5	17	<5	<5	<5	19	<5	<5	<5	17	<5	<5	<5	19		
Dibromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	9	<1	<1	<1	9		
Dibromochloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273		
Dichloroacetic acid	10.30	10.30	10.30	1	11.4	11.4	11.4	1	11.68	7.98	21.10	9	11.6	7.0	19.8	9		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dieldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	0.5	254	<0.5	<0.5	<0.5	254	(15)	
MIBK	<1	<1	<1	12	<1	<1	<1	11	<1	<1	<1	254	<1	<1	<1	254		
Monobromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	9	<1	<1	<1	9		
Monochloroacetic acid	<1.00	<1.00	<1.00	1	<1.00	<1.00	<1.00	1	<1.08	<1.00	1.58	9	<1.10	<1.00	1.68	9		
Parathion				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1		
Perfluorobutanoic acid (PFBA)				0				0	<0.83	<0.02	<2.00	5	<0.83	<0.02	<2.00	5		
Perfluorodecanoic Acid (PFDA)				0				0	<2	<2	<2	2	<2	<2	<2	2		
Perfluorododecanoic Acid (PFDoA)				0				0	<2	<2	<2	2	<2	<2	<2	2		
Perfluoroheptanoic acid (PFHpA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3		
Perfluorohexanoic acid (PFHxA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluorononanoic acid (PFNA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluoropentanoic Acid (PFPeA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5		
Perfluoroundecanoic Acid (PFUnA)				0				0	<2	<2	<2	2	<2	<2	<2	2		
Styrene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<1.0	254	<0.5	<0.5	<1.0	254		
Total Organic Carbon	1.6	1.3	2.1	4	1.6	1.2	2.1	4	1.6	1.0	2.8	39	1.5	0.9	2.5	39		

2.2.4 Treated Water Entering the Distribution System: Physical, Inorganic, and Organic

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L)																		
Total Volatile Organics (NonTHM)	2.5	1.4	4.2	12	2	1	4	11	2.0	<1.0	6.1	254	2	<1	6	254		
Total Volatile Organics (Unknown)				0				0	1.3	<0.5	7.7	41	1.3	<0.5	3.6	43		
Triallate				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3		
Trichloroacetic acid	11.50	11.50	11.50	1	11.90	11.90	11.90	1	12.04	7.95	24.40	9	11.16	6.22	20.80	9		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Xylene (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Xylene (1,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	0.6	254	<0.5	<0.5	0.9	254		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval limits. The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.5 ROSSDALE AND E.L. SMITH TREATED WATER ENTERING PLANT RESERVOIR

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical																		
Turbidity (NTU)	0.47	<0.04	12.90	30	0.05	<0.04	0.25	30	0.09	<0.04	12.90	271	0.05	<0.04	0.25	273		0.3
UV 254 %T ****	<94.9	<91.7	<96.1	29	<94.5	<90.7	<96.1	30	<94.3	<90.1	<96.9	270	<94.3	<90.7	<98.9	273		
Primary Inorganics (mg/L)																		
Bromate, dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.003	<0.005	39	<0.005	<0.003	<0.005	39	0.01	
Chlorate Dissolved	0.21	0.19	0.24	4	0.14	0.12	0.18	4	0.23	0.18	0.34	39	0.11	<0.05	0.20	39	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.025	<0.005	<0.200	39	<0.025	<0.005	<0.200	39	1	
Nitrate (as N) Dissolved	<0.01	<0.01	0.02	4	<0.01	<0.01	0.02	4	0.05	<0.01	0.17	39	0.05	<0.01	0.16	39	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.010	<0.010	<0.010	4	<0.010	<0.005	0.020	39	<0.010	<0.005	0.020	39	1	
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<1.0	254	<0.5	<0.5	<1.0	254	2	
Chlorobenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	253	<0.5	<0.5	<0.5	253	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<3.0	254	<0.5	<0.5	<3.0	254	14	
Ethylbenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	10	
Toluene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	4.1	271	<0.5	<0.5	1.8	273	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	12	<1.0	<1.0	<1.0	11	<1.0	<1.0	<2.5	254	<1.0	<1.0	<2.5	254	90	
Trichloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273	5	
Trihalomethanes	22.1	13.3	28.5	12	19.4	9.1	27.6	11	16.2	5.3	38.4	254	14.5	3.7	33.7	254	100	50
Vinyl Chloride	<0.7	<0.5	<1.0	29	<0.7	<0.5	<1.0	30	<1.0	<0.5	<1.0	270	<1.0	<0.5	<1.0	272	2	
Secondary Inorganics (mg/L)																		
Ammonia as NH3	0.12	0.08	0.15	14	0.11	0.08	0.15	14	0.12	0.08	0.18	89	0.11	0.06	0.17	89		
Bromide Dissolved	<0.03	<0.03	<0.03	4	<0.03	<0.03	<0.03	4	<0.02	<0.01	<0.05	39	<0.02	<0.01	<0.05	39		
Chloride Dissolved	5.42	4.67	6.57	4	6.96	6.05	7.86	4	6.47	4.65	19.90	39	7.00	4.63	12.90	39	(250)	
Sulphate Dissolved	72.4	67.3	81.5	4	73.5	67.1	83.0	4	73.2	59.2	95.8	39	75.4	59.8	95.3	39	(500)	

2.2.5 ROSSDALE AND E.L. SMITH TREATED WATER ENTERING PLANT RESERVOIR

September 2024

	Current Month								YTD								Limits	
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L)																		
Bromodichloromethane	1.0	0.8	1.3	29	0.9	0.6	1.5	30	1.0	<0.5	2.3	271	0.9	<0.5	2.1	273		16
Bromoform	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	271	<0.5	<0.5	<1.0	273		
Bromomethane	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19		
Chloroethane	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19		
Chloroform	24.9	11.90	32.4	29	23.5	8.00	31.5	30	15.8	4.60	37.4	271	14.3	3.00	33.2	273		
Chloromethane	<5	<5	<5	17	<5	<5	<5	19	<5	<5	<5	17	<5	<5	<5	19		
Dibromochloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	0.5	271	<0.5	<0.5	<0.5	273		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254	(15)	
MIBK	<1	<1	<1	12	<1	<1	<1	11	<1	<1	<1	254	<1	<1	<1	254		
Styrene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<1.0	254	<0.5	<0.5	<1.0	254		
Total Volatile Organics (NonTHM)	2.4	1.3	4.1	12	2.7	1.5	4.3	11	2.0	<1.0	6.5	254	2.0	<1.0	6.7	254		
Total Volatile Organics (Unknown)				0				0	1.1	<0.5	2.4	38	1.1	<0.5	2.8	42		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Xylene (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254		
Xylene (1,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	1.3	254	<0.5	<0.5	0.6	254		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

**** UV 254 %T for Rossdale based on a sample collected daily from one of the nine filters selected randomly. For E.L. Smith it is based on a daily sample of Combined Filter Effluent

2.2.6.a Routine Distribution System (does not include Field Reservoirs)

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Microbiological										
Microcystin	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	5	1.5	
Physical										
Colour (TCU)				0	0.8	0.6	1.1	3	(15)	10
pH (N/A)	7.8	7.6	7.9	60	7.8	7.6	8.0	281	(7.0 - 10.5)	7.3 - 8.3
Total Dissolved Solids (mg/L)				0	240	227	261	3	(500)	
Turbidity (NTU)	0.21	<0.04	3.16	102	0.25	<0.04	5.03	1172		1.0
UV 254 %T				0	<92.2	<90.1	<93.7	3		
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.01	
Barium	0.063	0.063	0.063	1	0.064	0.057	0.074	4	2	
Boron	0.010	0.010	0.010	1	0.010	0.009	0.011	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	2	<0.005	<0.003	<0.005	19	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.16	0.12	0.21	2	0.18	<0.08	0.30	19	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	2	<0.036	<0.005	<0.200	19	1	
Chromium	<0.0002	<0.0002	<0.0002	1	0.0002	<0.0002	0.0003	4	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride				0	0.68	0.65	0.74	3	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury	<0.00020	<0.00020	<0.00020	1	<0.00160	<0.00005	<0.00500	7	0.001	
Nitrate (as N) Dissolved	0.02	<0.01	0.07	62	0.04	<0.01	0.18	302	10	
Nitrite (as N) Dissolved	0.011	<0.010	0.040	62	<0.009	<0.005	0.040	302	1	
Selenium	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0003	4	0.05	
Strontium	0.455	0.455	0.455	1	0.451	0.438	0.466	4	7.0	
Total Chlorine	1.76	0.52	2.27	103	1.88	0.52	2.44	1171	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4	0.02	

2.2.6.a Routine Distribution System (does not include Field Reservoirs)

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Primary Organics (ug/L) **										
2,4-D				0	<0.12	<0.05	<0.25	3	100	
Atrazine				0	<0.05	<0.05	<0.05	3	5	
Atrazine+N-Dealkylated Metabolites				0	<0.1	<0.1	<0.1	1	0.005	
Azinphos-methyl				0	<0.1	<0.1	<0.1	3	0.02	
Benzene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	5	
Benzo(a)pyrene				0	<0.005	<0.005	<0.005	3	0.04	
Bromoxynil				0	<0.12	<0.05	<0.25	3	5	
Carbon tetrachloride	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	0.002	
Chlorobenzene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	80 (30)	
Chlorpyrifos				0	<0.1	<0.1	<0.1	3	90	
Cyanazine				0	<0.1	<0.1	<0.1	3		
Diazinon				0	<0.025	<0.025	<0.025	3		
Dicamba				0	<0.2	<0.1	<0.5	3	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	49	14	
Dichlorophenol (2,4)				0	<0.2	<0.2	<0.3	3		
Diclofop-methyl				0	<0.1	<0.1	<0.1	3		
Dimethoate				0	<0.05	<0.05	<0.05	3	20	
Diquat				0	<1	<1	<1	3	0.05	
Diuron				0	<0.05	<0.05	<0.05	3		
Ethylbenzene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	140 (1.6)	
Glyphosate				0	<0.3	<0.2	<0.5	3	280	
Malathion				0	<0.025	<0.025	<0.025	3	190	
MCPA				0	<0.12	<0.05	<0.25	3	100	
Methylene Chloride				0	<0.5	<0.5	<0.5	49	50	
Metolachlor				0	<0.025	<0.025	<0.025	3		
Metribuzin				0	<0.1	<0.1	<0.1	3	80	
NDMA (µg/L)	<0.00530	<0.00390	<0.00620	3	<0.00350	<0.00100	0.00690	27	0.040	10
Nitrilotriacetic acid				0	<0.4	<0.4	<0.4	3	0.4	
Paraquat				0	<1	<1	<1	1	0.07	
Pentachlorophenol				0	<0.7	<0.5	<1.0	3	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0	<0.008	<0.002	<0.020	3	0.0006	
Perfluorooctanoic acid (PFOA)				0	<0.008	<0.002	<0.020	3	0.0002	
Phorate				0	<0.25	<0.25	<0.25	3		
Picloram				0	<0.2	<0.1	<0.5	3		
Simazine				0	<0.1	<0.1	<0.1	3		
Terbufos				0	<0.5	<0.5	<0.5	3		

2.2.6.a Routine Distribution System (does not include Field Reservoirs)

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Primary Organics (ug/L) **										
Tetrachloroethylene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	10	
Tetrachlorophenol (2,3,4,6)				0	<0.5	<0.5	<0.5	3	100 (1)	
Toluene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	60 (24)	
Total Xylenes				0	<1	<1	<1	49	90	
Trichloroethylene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56	5	
Trichlorophenol (2,4,6)				0	<0.3	<0.2	<0.5	3	5 (2)	
Trifluralin				0	<0.1	<0.1	<0.1	3		
Vinyl Chloride				0	<1	<1	<1	49	2	

2.2.6.a Routine Distribution System (does not include Field Reservoirs)

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	119	116	121	3		
Alkalinity, PHP (mg CaCO3/L)				0	<3	<3	<3	3		
Aluminum	0.080	0.080	0.080	1	0.051	0.014	0.093	4	2.9	0.1/0.2
Ammonia as N	0.13	0.11	0.15	2	0.15	0.09	0.24	22		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.03	<0.03	<0.03	2	<0.03	<0.01	<0.05	19		
Calcium	48.9	48.9	48.9	1	48.7	46.5	51.8	4		
Chloride Dissolved	7.15	6.53	7.76	2	6.67	4.87	8.73	19	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Free Chlorine				0	<0.07	<0.07	<0.07	3		
Iron	0.009	0.009	0.009	1	0.008	<0.005	0.013	4	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	4		
Lithium	0.0041	0.0041	0.0041	1	0.0038	0.0034	0.0042	4		
Magnesium	13.8	13.8	13.8	1	14.2	13.4	15.3	4		
Molybdenum	0.0006	0.0006	0.0006	1	0.0008	0.0006	0.0010	4		
Nickel	<0.0005	<0.0005	<0.0005	1	0.0006	<0.0005	0.0010	4		
Phosphorus	0.99	0.99	0.99	1	1.00	0.91	1.05	4		
Potassium	0.7	0.7	0.7	1	0.8	0.7	0.9	4		
Silicon	1.69	1.69	1.69	1	2.12	1.69	2.59	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	6.9	6.9	6.9	1	11.2	6.9	13.5	4	(200)	
Sulphate Dissolved	72.1	71.9	72.2	2	71.5	59.0	82.4	19	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	4		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	179	171	183	3		
Total Kjeldahl Nitrogen				0	0.5	0.4	0.5	2		
Total Kjeldahl Nitrogen (TKN)				0	0.4	0.4	0.4	1		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Zinc	0.037	0.037	0.037	1	0.013	<0.005	0.037	4	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	4		

2.2.6.a Routine Distribution System (does not include Field Reservoirs)

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
2,4,5-T				0	<0.12	<0.05	<0.25	3		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)				0	<0.008	<0.002	<0.020	3		
8:2 Fluorotelomer sulfonic acid(8:2 FTS)				0	<0.008	<0.002	<0.020	3		
a-chlordane				0	<0.008	<0.008	<0.008	3		
Alachlor				0	<0.05	<0.05	<0.05	3		
Aldicarb				0	<0.1	<0.1	<0.1	3		
Aldrin				0	<0.008	<0.008	<0.008	3		
Ametryn				0	<0.025	<0.025	<0.025	3		
Atrazine Desethyl				0	<0.025	<0.025	<0.025	3		
Bendiocarb				0	<0.025	<0.025	<0.025	3		
Bromochloroacetic acid	<1	<1	<1	6	<1	<1	<1	54		
Bromodichloromethane	1.3	0.8	1.5	7	1.2	<0.5	2.1	56		16
Bromoform	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56		
Carbaryl				0	<0.05	<0.05	<0.05	3		
Carbofuran				0	<0.025	<0.025	<0.025	3		
Chloroform	29.5	22.7	32.2	7	21.8	7.6	39.1	56		
Dibromoacetic acid	<1	<1	<1	6	<1	<1	<1	54		
Dibromochloromethane	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56		
Dibromoethane (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	7		
Dichloroacetic acid	12.98	11.60	13.60	6	11.50	5.90	23.50	54		
Dichlorobenzene (1,3)				0	<0.5	<0.5	<0.5	49		
Dichloroethylene, cis (1,2)				0	<0.5	<0.5	<0.5	49		
Dichloroethylene, trans (1,2)				0	<0.5	<0.5	<0.5	49		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	49		
Dieldrin				0	<0.008	<0.008	<0.008	3		
Dinoseb				0	<0.12	<0.05	<0.25	3		
gamma-hexachlorocyclohexane				0	<0.008	<0.008	<0.008	3		
g-chlordane				0	<0.008	<0.008	<0.008	3		
Heptachlor				0	<0.008	<0.008	<0.008	3		
Heptachlor Epoxide				0	<0.008	<0.008	<0.008	3		
Methoxychlor				0	<0.008	<0.008	<0.008	3		
Methyl Parathion				0	<0.1	<0.1	<0.1	3		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	49	(15)	
MIBK				0	<1	<1	<1	49		
Monobromoacetic acid	<1	<1	<1	6	<1	<1	<1	54		
Monochloroacetic acid	<1	<1	<1	6	1	<1	2	54		
op-DDT				0	<0.004	<0.004	<0.004	3		
Oxychlordane				0	<0.008	<0.008	<0.008	3		
Parathion				0	<0.1	<0.1	<0.1	3		

2.2.6.a Routine Distribution System (does not include Field Reservoirs)

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Perfluorobutane sulfonic acid (PFBS)				0	<0.008	<0.002	<0.020	3		
Perfluorobutanoic acid (PFBA)				0	<0.05	<0.02	<0.10	3		
Perfluoroheptanoic acid (PFHpA)				0	<0.008	<0.002	<0.020	3		
Perfluorohexane sulfonic acid (PFHxS)				0	<0.008	<0.002	<0.020	3		
Perfluorohexanoic acid (PFHxA)				0	<0.008	<0.002	<0.020	3		
Perfluorononanoic acid (PFNA)				0	<0.008	<0.002	<0.020	3		
Perfluoropentanoic acid (PFPeA)				0	<0.008	<0.002	<0.020	3		
pp-DDD				0	<0.004	<0.004	<0.004	3		
pp-DDE				0	<0.004	<0.004	<0.004	3		
pp-DDT				0	<0.004	<0.004	<0.004	3		
Prometon				0	<0.025	<0.025	<0.025	3		
Prometryne				0	<0.025	<0.025	<0.025	1		
Propazine				0	<0.025	<0.025	<0.025	3		
Styrene	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	56		
Temephos				0	<0.25	<0.25	<0.25	3		
Terbutryn				0	<0.025	<0.025	<0.025	3		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	49		
Total Organic Carbon	1.5	1.5	1.5	2	1.8	1.2	2.7	214		
Total Volatile Organics (NonTHM)				0	2	<1	5	49		
Total Volatile Organics (Unknown)				0	1.0	<0.5	1.9	11		
Triallate				0	<0.1	<0.1	<0.1	3		
Trichloroacetic acid	12.85	12.30	13.40	6	11.06	5.40	24.30	54		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	14	<0.5	<0.5	<0.5	63		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	49		
Trichloroethane (1,1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	7		
Trichloropropane (1,2,3)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	7		
Xylene (1,2)				0	<0.5	<0.5	<0.5	49		
Xylene (1,4)				0	<0.5	<0.5	<0.5	49		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.6.b Additional Distribution System Samples Collected from Water Quality Complaint Investigations

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.0	0.7	1.3	13	0.9	<0.5	1.9	118	(15)	10
pH (N/A)	7.8	7.7	7.9	13	7.8	7.6	8.1	118	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.46	0.06	2.25	13	0.45	<0.04	2.89	118		1.0
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0002	<0.0005	118	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	118	0.01	
Barium	0.066	0.061	0.076	13	0.062	<0.002	0.093	118	2	
Boron	0.011	0.010	0.015	13	0.012	0.007	0.036	118	2	
Cadmium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	118	0.007	
Chromium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	118	0.05	
Copper	0.017	<0.002	0.192	13	0.006	<0.002	0.192	118	2 (1)	
Lead	0.0004	<0.0002	0.0025	13	0.0002	<0.0002	0.0025	118	0.005	
Manganese	0.002	<0.002	0.006	13	0.002	<0.002	0.008	118	0.12 (0.02)	
Mercury	<0.00020	<0.00020	<0.00020	13	<0.00020	<0.00020	<0.00020	112	0.001	
Nitrate (as N) Dissolved				0	0.03	0.03	0.03	1	10	
Nitrite (as N) Dissolved				0	<0.01	<0.01	<0.01	1	1	
Selenium	0.0003	<0.0002	0.0003	13	0.0003	<0.0002	0.0004	118	0.05	
Strontium	0.438	0.421	0.451	13	0.443	<0.002	0.501	118	7.0	
Total Chlorine	1.74	1.39	2.27	13	1.80	0.75	2.27	118	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	13	0.0005	<0.0005	0.0006	118	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	2	
Chlorobenzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111	14	
Ethylbenzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	10	
Toluene	<0.5	<0.5	<0.5	13	0.6	<0.5	3.4	118	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	6	1.0	<1.0	1.2	111	90	
Trichloroethylene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118	5	
Vinyl Chloride	<1	<1	<1	6	<1	<1	<1	111	2	

2.2.6.b Additional Distribution System Samples Collected from Water Quality Complaint Investigations

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Aluminum	0.092	0.034	0.468	13	0.079	0.012	0.955	118	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	118		
Calcium	48.9	48.0	50.5	13	48.1	<0.1	54.3	118		
Cobalt	0.0002	<0.0002	0.0003	13	0.0002	<0.0002	0.0006	118		
Iron	0.078	<0.005	0.497	13	0.064	<0.005	0.497	118	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	13	<0.001	<0.001	<0.001	118		
Lithium	0.0041	0.0034	0.0053	13	0.0039	<0.0002	0.0076	118		
Magnesium	13.8	13.4	14.4	13	13.7	<0.1	16.4	118		
Molybdenum	0.0008	0.0007	0.0009	13	0.0008	0.0006	0.0011	118		
Nickel	0.0005	<0.0005	0.0010	13	0.0006	<0.0005	0.0028	118		
Phosphorus	0.97	0.88	1.25	13	0.98	0.33	1.62	118		
Potassium	0.8	0.7	0.8	13	0.9	0.3	2.8	118		
Silicon	2.08	1.76	2.45	13	2.10	1.63	2.69	118		
Silver	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	118		
Sodium	10.0	7.5	14.9	13	12.2	6.6	98.7	118	(200)	
Thallium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0005	118		
Tin	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	118		
Titanium	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	118		
Total Hardness (mg/L CaCO3)	179	176	183	13	176	<2	201	118		
Vanadium	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	118		
Zinc	0.006	<0.005	0.011	13	0.005	<0.005	0.023	118	(5.0)	
Zirconium	<0.001	<0.001	<0.001	13	<0.001	<0.001	<0.001	118		

2.2.6.b Additional Distribution System Samples Collected from Water Quality Complaint Investigations

September 2024

	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.2	1.0	1.7	13	1.3	<0.5	2.1	118		16
Bromoform	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118		
Chloroform	28.2	16.4	31.0	13	20.8	5.6	37.6	118		
Dibromochloromethane	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118		
Dibromoethane (1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	7		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111	(15)	
MIBK	<1	<1	<1	6	<1	<1	<1	111		
Styrene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	118		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111		
Total Volatile Organics (NonTHM)	2.7	1.8	4.5	6	2.3	<1.0	6.9	111		
Total Volatile Organics (Unknown)				0	3.2	<0.5	13.8	17		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	20	<0.5	<0.5	<0.5	125		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111		
Trichloroethane (1,1,2)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	7		
Trichloropropane (1,2,3)	<0.5	<0.5	<0.5	7	<0.5	<0.5	<0.5	7		
Xylene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	111		
Xylene (1,4)	<0.5	<0.5	<0.5	6	0.5	<0.5	1.1	111		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.7 Castledowns Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.3	1.3	1.3	1	1.3	0.6	2.0	4	(15)	10
Conductivity (uS/cm)	423	423	423	1	409	391	423	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.8	7.7	7.8	4	7.8	7.7	8.1	19	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.06	0.22	4	0.13	0.06	0.46	35		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0002	4	0.01	
Barium	0.068	0.068	0.068	1	0.061	0.051	0.069	4	2	
Boron	0.011	0.011	0.011	1	0.010	0.009	0.011	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.136	0.136	0.136	1	0.123	0.050	0.143	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride	0.69	0.69	0.69	1	0.70	0.66	0.75	4	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	0.003	4	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.020	0.020	0.020	4	0.041	0.010	0.170	21	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	21	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0004	4	0.05	
Strontium	0.423	0.423	0.423	1	0.436	0.423	0.453	4	7.0	
Total Chlorine	1.83	1.71	1.91	4	1.78	1.27	2.06	35	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	10	
Toluene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.3	<1.0	2.0	4	2	

2.2.7 Castledowns Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	117	117	117	1	118	112	122	4		
Aluminum	0.055	0.055	0.055	1	0.050	0.022	0.090	4	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.17	4	0.18	0.14	0.28	18		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.022	<0.010	<0.030	5		
Calcium	47.5	47.5	47.5	1	47.6	45.5	49.5	4		
Calcium Hardness				0	121	121	121	1		
Calcium Hardness Calculated	119	119	119	1	119	114	124	3		
Chloride Dissolved	8.0	8.0	8.0	1	7.4	6.2	8.0	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Iron	<0.005	<0.005	<0.005	1	0.023	<0.005	0.078	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0040	0.0040	0.0040	1	0.0036	0.0030	0.0040	4		
Magnesium	13.7	13.7	13.7	1	13.7	13.3	14.0	4		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0007	0.0009	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.91	0.88	0.94	8	0.89	0.86	0.94	32		
Phosphorus	1.00	1.00	1.00	1	0.97	0.87	1.02	4		
Potassium	0.90	0.90	0.90	1	0.93	0.80	1.20	4		
Silicon	2.36	2.36	2.36	1	2.14	1.67	2.36	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	17.1	17.1	17.1	1	13.6	9.9	17.1	4	(200)	
Sulphate Dissolved	80.2	80.2	80.2	1	74.8	69.6	80.2	5	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	4		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated	175	175	175	1	175	168	181	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		

2.2.7 Castledowns Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	0.9	0.9	0.9	1	0.9	0.6	1.2	4		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Chloroform	30.5	30.5	30.5	1	22.9	6.9	35.6	4		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.3	<1.0	2.0	4		
Styrene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Total Organic Carbon	2.0	2.0	2.0	1	1.7	0.9	2.3	16		
Total Volatile Organics (NonTHM)	1.9	1.9	1.9	1	<1.2	<1.0	1.9	4		
Total Volatile Organics (Unknown)				0	0.7	0.7	0.7	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.8 Clareview Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	0.8	0.7	1.0	5	(15)	10
Conductivity (uS/cm)				0	397	368	421	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)	7.8	7.8	7.9	4	7.8	7.7	8.1	22	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.21	0.12	0.43	4	0.15	0.10	0.43	39		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	5	0.01	
Barium				0	0.063	0.056	0.068	5	2	
Boron				0	0.010	0.008	0.013	5	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.205	0.172	0.229	6	1	
Chlorite Dissolved				0	<0.038	<0.005	<0.200	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.68	0.65	0.71	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.020	0.020	0.020	4	0.047	0.020	0.180	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium				0	0.0003	0.0002	0.0003	5	0.05	
Strontium				0	0.447	0.405	0.481	5	7.0	
Total Chlorine	1.69	1.60	1.78	4	1.84	1.60	2.09	39	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	5	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	5	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	5	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	5	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	5	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	5	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	5	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	5	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	5	10	
Toluene				0	<0.50	<0.50	<0.50	5	60 (24)	
Total Xylenes				0	<1	<1	<1	5	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	5	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	5	2	

2.2.8 Clareview Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	118	109	129	5		
Aluminum				0	0.065	0.023	0.173	5	2.9	0.1/0.2
Ammonia as NH3	0.19	0.18	0.20	4	0.20	0.15	0.22	20		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.027	<0.010	<0.050	6		
Calcium				0	47.3	43.7	51.3	5		
Calcium Hardness				0	124	118	130	2		
Calcium Hardness Calculated				0	114	109	117	3		
Chloride Dissolved				0	6.2	5.5	7.0	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	0.014	0.012	0.018	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0037	0.0032	0.0043	5		
Magnesium				0	13.9	12.2	14.9	5		
Molybdenum				0	0.0008	0.0006	0.0010	5		
Nickel				0	<0.0005	<0.0005	<0.0005	5		
Ortho_P	0.84	0.74	0.90	8	0.87	0.74	0.92	34		
Phosphorus				0	0.95	0.91	0.96	5		
Potassium				0	0.86	0.70	1.10	5		
Silicon				0	1.95	1.61	2.13	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	11.3	7.2	16.2	5	(200)	
Sulphate Dissolved				0	70.9	59.6	76.4	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	188	177	198	2		
Total Hardness Calculated				0	169	160	177	3		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.8 Clareview Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.6	0.9	2.2	5		16
Bromoform				0	<0.5	<0.5	<0.5	5		
Chloroform				0	23.4	13.9	34.8	5		
Dibromochloromethane				0	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	5		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	5		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	5		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	5		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	5	(15)	
MIBK				0	<1.0	<1.0	<1.0	5		
Styrene				0	<0.50	<0.50	<0.50	5		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	5		
Total Organic Carbon				0	1.8	1.3	2.5	18		
Total Volatile Organics (NonTHM)				0	2.3	<1.0	4.0	5		
Total Volatile Organics (Unknown)				0	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	5		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	5		
Xylene (1,2)				0	<0.5	<0.5	<0.5	5		
Xylene (1,4)				0	<0.5	<0.5	<0.5	5		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

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*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.9 Discovery Park Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	0.7	<0.5	1.0	6	(15)	10
Conductivity (uS/cm)				0	398	367	420	6		
Odour				0	Inoff	Inoff	Inoff	6		
pH (N/A)	7.9	7.9	7.9	4	7.9	7.8	8.1	23	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.10	0.17	4	0.14	0.06	1.09	41		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0005	<0.0002	<0.0005	6	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	6	0.01	
Barium				0	0.062	0.054	0.069	6	2	
Boron				0	0.010	0.008	0.012	6	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	6	0.007	
Chlorate Dissolved				0	0.120	<0.090	0.163	6	1	
Chlorite Dissolved				0	<0.038	<0.005	<0.200	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	6	0.05	
Copper				0	<0.003	<0.002	<0.005	6	2 (1)	
Fluoride				0	0.69	0.65	0.77	6	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	6	0.005	
Manganese				0	<0.002	<0.002	<0.002	6	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	6	0.001	
Nitrate (as N) Dissolved	0.035	0.030	0.040	4	0.047	0.020	0.190	24	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	24	1	
Selenium				0	0.0003	0.0002	0.0003	6	0.05	
Strontium				0	0.441	0.410	0.474	6	7.0	
Total Chlorine	1.13	1.03	1.30	4	1.37	1.03	1.68	41	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	6	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	6	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	6	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	6	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	6		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	6	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	6	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	6	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	6	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	6	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	6	10	
Toluene				0	<0.50	<0.50	<0.50	6	60 (24)	
Total Xylenes				0	<1	<1	<1	6	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	6	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	6	2	

2.2.9 Discovery Park Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	118	111	126	6		
Aluminum				0	0.072	0.021	0.200	6	2.9	0.1/0.2
Ammonia as NH3	0.27	0.24	0.31	4	0.22	<0.05	0.31	22		
Beryllium				0	<0.0002	<0.0002	<0.0002	6		
Bromide Dissolved				0	<0.027	<0.010	<0.050	6		
Calcium				0	46.0	43.9	48.3	6		
Calcium Hardness				0	119	113	124	2		
Calcium Hardness Calculated				0	115	110	121	4		
Chloride Dissolved				0	7.1	6.0	8.4	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	6		
Iron				0	<0.005	<0.005	0.005	6	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	6		
Lithium				0	0.0033	0.0030	0.0041	6		
Magnesium				0	13.6	12.7	14.4	6		
Molybdenum				0	0.0008	0.0006	0.0009	6		
Nickel				0	<0.0005	<0.0005	0.0006	6		
Ortho_P	0.90	0.86	0.92	8	0.91	0.86	1.04	34		
Phosphorus				0	0.98	0.91	1.02	6		
Potassium				0	0.87	0.80	1.00	6		
Silicon				0	1.92	1.57	2.21	6		
Silver				0	<0.0002	<0.0002	<0.0002	6		
Sodium				0	13.3	7.4	19.4	6	(200)	
Sulphate Dissolved				0	73.2	58.6	81.0	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	6		
Tin				0	<0.0005	<0.0005	<0.0005	6		
Titanium				0	<0.0005	<0.0005	<0.0005	6		
Total Hardness (mg/L CaCO3)				0	178	174	182	2		
Total Hardness Calculated				0	170	162	180	4		
Vanadium				0	<0.0005	<0.0005	<0.0005	6		
Zinc				0	<0.005	<0.005	<0.005	6	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	6		

2.2.9 Discovery Park Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.3	0.7	1.8	6		16
Bromoform				0	<0.5	<0.5	<0.5	6		
Chloroform				0	23.5	11.7	37.8	6		
Dibromochloromethane				0	<0.50	<0.50	<0.50	6		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	6		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	6		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	6		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	6		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	6	(15)	
MIBK				0	<1.0	<1.0	<1.0	6		
Styrene				0	<0.50	<0.50	<0.50	6		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	6		
Total Organic Carbon				0	1.7	1.2	2.4	19		
Total Volatile Organics (NonTHM)				0	2.4	<1.0	3.8	6		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	6		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	6		
Xylene (1,2)				0	<0.5	<0.5	<0.5	6		
Xylene (1,4)				0	<0.5	<0.5	<0.5	6		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

Footnote: The Discovery Park reservoir was officially included as part of EWSI's Approval to Operate, Approval 638-04-00, starting on January 19, 2021. From January 1 - 18, 2021 the Discovery Park Waterworks System operated under the Environmental Protection and Enhancement Act (EPEA) Registration no. 462525-00-00. This Registration was issued for Discovery Park Waterworks System to follow the Code of Practice for a Waterworks System Consisting Solely of a Water Distribution System.

2.2.10 Kaskitayo Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	1.1	0.5	1.6	4	(15)	10
Conductivity (uS/cm)				0	405	370	426	4		
Odour				0	Inoff	Inoff	Inoff	4		
pH (N/A)	7.7	7.7	7.7	4	7.7	7.6	7.9	22	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.09	0.04	0.12	4	0.09	0.04	0.19	39		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic				0	<0.0002	<0.0002	0.0002	4	0.01	
Barium				0	0.063	0.056	0.069	4	2	
Boron				0	0.009	0.008	0.010	4	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	4	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved				0	<0.102	<0.080	0.126	4	1	
Chlorite Dissolved				0	<0.054	<0.005	<0.200	4	1	
Chromium				0	<0.0002	<0.0002	<0.0002	4	0.05	
Copper				0	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride				0	0.69	0.65	0.74	4	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese				0	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.018	0.010	0.020	4	0.039	<0.010	0.170	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium				0	0.0003	0.0002	0.0003	4	0.05	
Strontium				0	0.442	0.385	0.483	4	7.0	
Total Chlorine	1.85	1.52	1.97	4	1.97	1.52	2.23	39	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	4	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	4	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	4	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	4	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	4	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	4	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	4	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	4	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	4	10	
Toluene				0	<0.50	<0.50	<0.50	4	60 (24)	
Total Xylenes				0	<1	<1	<1	4	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	4	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	4	2	

2.2.10 Kaskitayo Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	123	118	128	4		
Aluminum				0	0.045	0.022	0.097	4	2.9	0.1/0.2
Ammonia as NH3	0.19	0.16	0.20	4	0.17	0.11	0.20	21		
Beryllium				0	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved				0	<0.025	<0.010	<0.050	4		
Calcium				0	47.3	43.3	51.2	4		
Calcium Hardness				0	124	118	129	2		
Calcium Hardness Calculated				0	113	108	118	2		
Chloride Dissolved				0	7.2	6.0	8.2	4	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	4		
Iron				0	<0.005	<0.005	<0.005	4	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	4		
Lithium				0	0.0032	0.0029	0.0036	4		
Magnesium				0	13.7	11.8	15.1	4		
Molybdenum				0	0.0008	0.0006	0.0009	4		
Nickel				0	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.90	0.86	0.92	8	0.91	0.82	1.02	34		
Phosphorus				0	0.94	0.87	0.98	4		
Potassium				0	0.88	0.70	1.10	4		
Silicon				0	2.04	1.93	2.16	4		
Silver				0	<0.0002	<0.0002	<0.0002	4		
Sodium				0	14.2	7.4	22.0	4	(200)	
Sulphate Dissolved				0	73.7	60.7	79.6	4	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	4		
Tin				0	<0.0005	<0.0005	<0.0005	4		
Titanium				0	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	184	178	190	2		
Total Hardness Calculated				0	166	157	175	2		
Vanadium				0	<0.0005	<0.0005	<0.0005	4		
Zinc				0	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	4		

2.2.10 Kaskitayo Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.2	0.7	1.8	4		16
Bromoform				0	<0.5	<0.5	<0.5	4		
Chloroform				0	20.8	9.8	31.6	4		
Dibromochloromethane				0	<0.50	<0.50	<0.50	4		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	4		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	4		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	4		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	4		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	4	(15)	
MIBK				0	<1.0	<1.0	<1.0	4		
Styrene				0	<0.50	<0.50	<0.50	4		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	4		
Total Organic Carbon				0	1.8	1.2	2.6	18		
Total Volatile Organics (NonTHM)				0	2.1	<1.0	4.1	4		
Total Volatile Organics (Unknown)				0	1.1	1.1	1.1	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	4		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	4		
Xylene (1,2)				0	<0.5	<0.5	<0.5	4		
Xylene (1,4)				0	<0.5	<0.5	<0.5	4		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.11 Londonderry Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.1	1.1	1.1	1	1.1	0.7	1.2	4	(15)	10
Conductivity (uS/cm)	397	397	397	1	396	390	405	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.8	7.8	7.8	4	7.8	7.7	8.1	21	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.09	0.12	4	0.13	0.06	0.52	39		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0002	4	0.01	
Barium	0.066	0.066	0.066	1	0.061	0.052	0.068	4	2	
Boron	0.011	0.011	0.011	1	0.011	0.010	0.012	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.219	0.219	0.219	1	0.220	0.188	0.238	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.69	0.66	0.73	4	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.015	0.010	0.020	4	0.046	0.010	0.180	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium	0.0002	0.0002	0.0002	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.427	0.427	0.427	1	0.434	0.412	0.459	4	7.0	
Total Chlorine	1.74	1.63	1.83	4	1.90	1.63	2.25	39	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	10	
Toluene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.3	<1.0	2.0	4	2	

2.2.11 Londonderry Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	113	113	113	1	115	110	121	4		
Aluminum	0.070	0.070	0.070	1	0.048	0.018	0.082	4	2.9	0.1/0.2
Ammonia as NH3	0.18	0.18	0.19	4	0.19	0.14	0.22	20		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.022	<0.010	<0.030	5		
Calcium	46.4	46.4	46.4	1	47.4	44.6	49.5	4		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated	116	116	116	1	117	111	124	3		
Chloride Dissolved	6.2	6.2	6.2	1	6.4	5.7	7.2	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0043	0.0043	0.0043	1	0.0040	0.0033	0.0043	4		
Magnesium	13.5	13.5	13.5	1	13.8	13.3	14.3	4		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0007	0.0010	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.88	0.86	0.94	8	0.89	0.86	0.94	34		
Phosphorus	0.97	0.97	0.97	1	0.97	0.89	1.03	4		
Potassium	0.80	0.80	0.80	1	0.95	0.80	1.40	4		
Silicon	2.21	2.21	2.21	1	2.17	1.83	2.35	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	11.9	11.9	11.9	1	11.2	9.8	13.0	4	(200)	
Sulphate Dissolved	74.6	74.6	74.6	1	73.6	72.9	74.6	5	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	4		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Total Hardness Calculated	171	171	171	1	173	166	182	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		

2.2.11 Londonderry Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.3	1.3	1.3	1	1.2	1.0	1.4	4		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Chloroform	34.3	34.3	34.3	1	22.9	8.5	34.3	4		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.3	<1.0	2.0	4		
Styrene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Total Organic Carbon	1.7	1.7	1.7	1	1.7	1.0	2.5	18		
Total Volatile Organics (NonTHM)	2.4	2.4	2.4	1	<1.4	<1.0	2.4	4		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.12 Millwoods Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.8	0.8	0.8	1	0.9	<0.5	1.2	5	(15)	10
Conductivity (uS/cm)	421	421	421	1	403	384	421	5		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	5		
pH (N/A)	7.7	7.7	7.8	4	7.8	7.7	8.0	21	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.09	0.12	4	0.10	0.06	0.20	39		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0003	5	0.01	
Barium	0.069	0.069	0.069	1	0.062	0.051	0.071	5	2	
Boron	0.011	0.011	0.011	1	0.011	0.009	0.013	5	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved	0.168	0.168	0.168	1	0.138	0.090	0.171	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride	0.65	0.65	0.65	1	0.68	0.65	0.72	5	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.015	0.010	0.020	4	0.038	0.010	0.160	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0004	5	0.05	
Strontium	0.430	0.430	0.430	1	0.447	0.422	0.481	5	7.0	
Total Chlorine	1.96	1.89	2.05	4	1.99	1.79	2.21	39	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	10	
Toluene	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	6	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	6	2	

2.2.12 Millwoods Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	116	116	116	1	117	112	123	5		
Aluminum	0.063	0.063	0.063	1	0.071	0.022	0.168	5	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.18	4	0.17	0.11	0.19	21		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.022	<0.010	<0.030	5		
Calcium	47.8	47.8	47.8	1	47.5	45.2	49.6	5		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated	119	119	119	1	118	113	124	4		
Chloride Dissolved	7.4	7.4	7.4	1	6.7	5.6	7.4	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		
Lithium	0.0045	0.0045	0.0045	1	0.0038	0.0031	0.0045	5		
Magnesium	13.6	13.6	13.6	1	14.0	13.3	14.5	5		
Molybdenum	0.0007	0.0007	0.0007	1	0.0009	0.0007	0.0011	5		
Nickel	0.0005	0.0005	0.0005	1	<0.0005	<0.0005	0.0005	5		
Ortho_P	0.88	0.82	0.92	8	0.89	0.82	1.00	34		
Phosphorus	0.99	0.99	0.99	1	0.97	0.90	1.01	5		
Potassium	0.90	0.90	0.90	1	0.88	0.80	1.10	5		
Silicon	2.43	2.43	2.43	1	2.07	1.56	2.43	5		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	5		
Sodium	16.4	16.4	16.4	1	12.8	8.9	16.4	5	(200)	
Sulphate Dissolved	80.4	80.4	80.4	1	75.0	71.5	80.4	5	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	5		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated	176	176	176	1	176	168	184	4		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	5		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	5		

2.2.12 Millwoods Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.1	1.1	1.1	1	1.2	0.7	2.2	6		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6		
Chloroform	33.7	33.7	33.7	1	19.4	6.8	37.4	6		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	6		
Styrene	<0.50	<0.50	<0.50	1	<0.58	<0.50	1.00	6		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6		
Total Organic Carbon	2.3	2.3	2.3	1	1.8	0.9	2.6	18		
Total Volatile Organics (NonTHM)	2.1	2.1	2.1	1	1.6	<1.0	3.6	6		
Total Volatile Organics (Unknown)				0	1.3	1.3	1.3	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	6		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.13 North Jasper Place Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	0.8	0.6	1.0	5	(15)	10
Conductivity (uS/cm)				0	402	367	421	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)	7.9	7.7	7.9	4	7.8	7.7	8.0	22	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.19	0.08	0.37	4	0.12	0.05	0.37	39		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	5	0.01	
Barium				0	0.061	0.054	0.068	5	2	
Boron				0	0.010	0.008	0.014	5	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.116	<0.080	0.147	6	1	
Chlorite Dissolved				0	<0.038	<0.005	<0.200	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.68	0.64	0.71	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.020	0.020	0.020	4	0.049	0.020	0.190	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium				0	0.0003	0.0002	0.0003	5	0.05	
Strontium				0	0.444	0.416	0.481	5	7.0	
Total Chlorine	1.42	1.32	1.55	4	1.65	1.25	2.07	39	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	5	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	5	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	5	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	5	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	5	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	5	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	5	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	5	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	5	10	
Toluene				0	<0.50	<0.50	<0.50	5	60 (24)	
Total Xylenes				0	<1	<1	<1	5	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	5	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	5	2	

2.2.13 North Jasper Place Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	118	112	128	5		
Aluminum				0	0.053	0.024	0.102	5	2.9	0.1/0.2
Ammonia as NH3	0.22	0.21	0.24	4	0.21	0.16	0.25	20		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.027	<0.010	<0.050	6		
Calcium				0	46.6	43.9	51.0	5		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated				0	113	110	117	3		
Chloride Dissolved				0	7.0	6.0	8.0	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0034	0.0030	0.0041	5		
Magnesium				0	13.6	12.2	14.7	5		
Molybdenum				0	0.0008	0.0005	0.0009	5		
Nickel				0	<0.0005	<0.0005	0.0005	5		
Ortho_P	0.90	0.86	0.94	8	0.89	0.82	0.96	34		
Phosphorus				0	0.97	0.92	1.00	5		
Potassium				0	0.84	0.70	1.00	5		
Silicon				0	1.96	1.78	2.09	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	13.3	7.2	19.0	5	(200)	
Sulphate Dissolved				0	72.9	59.5	80.4	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	184	173	194	2		
Total Hardness Calculated				0	167	160	175	3		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.13 North Jasper Place Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.4	0.9	1.8	5		16
Bromoform				0	<0.5	<0.5	<0.5	5		
Chloroform				0	22.7	12.7	36.0	5		
Dibromochloromethane				0	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	5		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	5		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	5		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	5		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	5	(15)	
MIBK				0	<1.0	<1.0	<1.0	5		
Styrene				0	<0.50	<0.50	<0.50	5		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	5		
Total Organic Carbon				0	1.8	1.2	2.4	17		
Total Volatile Organics (NonTHM)				0	2.2	<1.0	3.4	5		
Total Volatile Organics (Unknown)				0	1.7	1.7	1.7	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	5		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	5		
Xylene (1,2)				0	<0.5	<0.5	<0.5	5		
Xylene (1,4)				0	<0.5	<0.5	<0.5	5		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.14 Ormsby Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.1	1.1	1.1	1	0.9	0.6	1.1	4	(15)	10
Conductivity (uS/cm)	415	415	415	1	411	395	424	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.8	7.6	7.9	4	7.8	7.6	8.0	21	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.07	0.12	4	0.11	0.05	0.28	39		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0002	4	0.01	
Barium	0.068	0.068	0.068	1	0.062	0.051	0.071	4	2	
Boron	0.011	0.011	0.011	1	0.011	0.010	0.011	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.139	0.139	0.139	1	0.103	0.060	0.139	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride	0.66	0.66	0.66	1	0.68	0.66	0.71	4	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.018	0.010	0.020	4	0.038	0.010	0.170	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.429	0.429	0.429	1	0.437	0.424	0.458	4	7.0	
Total Chlorine	1.84	1.71	1.97	4	1.91	1.62	2.15	39	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	10	
Toluene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5	2	

2.2.14 Ormsby Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	114	114	114	1	118	112	123	4		
Aluminum	0.067	0.067	0.067	1	0.063	0.023	0.130	4	2.9	0.1/0.2
Ammonia as NH3	0.17	0.16	0.18	4	0.17	0.11	0.20	21		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.020	<0.010	<0.030	4		
Calcium	47.1	47.1	47.1	1	47.0	43.9	49.6	4		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated	118	118	118	1	117	110	124	3		
Chloride Dissolved	7.9	7.9	7.9	1	7.3	6.3	7.9	4	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0039	0.0039	0.0039	1	0.0035	0.0030	0.0040	4		
Magnesium	13.6	13.6	13.6	1	13.7	13.1	14.2	4		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0007	0.0011	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.88	0.74	0.96	8	0.89	0.74	0.98	34		
Phosphorus	1.00	1.00	1.00	1	0.98	0.88	1.04	4		
Potassium	0.80	0.80	0.80	1	0.93	0.80	1.30	4		
Silicon	2.29	2.29	2.29	1	2.17	1.68	2.39	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	16.2	16.2	16.2	1	14.4	12.9	16.2	4	(200)	
Sulphate Dissolved	78.0	78.0	78.0	1	76.1	73.6	78.0	4	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	4		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated	174	174	174	1	173	164	182	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		

2.2.14 Ormsby Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.0	1.0	1.0	1	1.0	0.8	1.1	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Chloroform	31.3	31.3	31.3	1	18.9	6.6	38.1	5		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5		
Styrene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Total Organic Carbon	2.0	2.0	2.0	1	1.8	0.9	2.5	18		
Total Volatile Organics (NonTHM)	1.9	1.9	1.9	1	<1.2	<1.0	1.9	5		
Total Volatile Organics (Unknown)				0	0.9	0.6	1.2	2		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.15 Papaschase 1 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	0.9	0.9	0.9	1	0.9	0.7	1.0	4	(15)	10
Conductivity (uS/cm)	381	381	381	1	394	379	408	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.8	7.7	7.8	4	7.8	7.6	8.0	21	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.06	0.15	4	0.15	0.06	0.26	39		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	0.0003	0.0003	0.0003	1	<0.0002	<0.0002	0.0003	4	0.01	
Barium	0.064	0.064	0.064	1	0.061	0.050	0.071	4	2	
Boron	0.011	0.011	0.011	1	0.010	0.008	0.011	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.224	0.224	0.224	1	0.233	0.190	0.261	4	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride	0.64	0.64	0.64	1	0.69	0.64	0.75	4	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.020	0.010	0.030	4	0.041	0.010	0.160	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium	0.0002	0.0002	0.0002	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.429	0.429	0.429	1	0.435	0.423	0.455	4	7.0	
Total Chlorine	1.59	1.35	2.03	4	1.87	1.35	2.15	39	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	10	
Toluene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	5	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5	2	

2.2.15 Papaschase 1 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	110	110	110	1	115	110	120	4		
Aluminum	0.096	0.096	0.096	1	0.057	0.019	0.096	4	2.9	0.1/0.2
Ammonia as NH3	0.21	0.16	0.28	4	0.19	0.11	0.28	21		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.020	<0.010	<0.030	4		
Calcium	46.5	46.5	46.5	1	47.7	45.1	50.1	4		
Calcium Hardness				0	123	123	123	1		
Calcium Hardness Calculated	116	116	116	1	117	113	123	3		
Chloride Dissolved	6.0	6.0	6.0	1	6.4	5.8	7.5	4	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Iron	0.011	0.011	0.011	1	0.013	0.010	0.016	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0042	0.0042	0.0042	1	0.0039	0.0033	0.0045	4		
Magnesium	13.5	13.5	13.5	1	13.9	13.1	14.5	4		
Molybdenum	0.0008	0.0008	0.0008	1	0.0009	0.0007	0.0011	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.85	0.76	0.90	8	0.86	0.76	0.90	34		
Phosphorus	0.95	0.95	0.95	1	0.94	0.88	0.97	4		
Potassium	0.80	0.80	0.80	1	0.88	0.80	1.10	4		
Silicon	1.95	1.95	1.95	1	2.10	1.68	2.39	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	9.2	9.2	9.2	1	10.3	9.2	11.4	4	(200)	
Sulphate Dissolved	69.2	69.2	69.2	1	72.0	69.2	75.2	4	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	4		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Total Hardness Calculated	172	172	172	1	174	167	182	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		

2.2.15 Papaschase 1 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	0.9	0.9	0.9	1	1.0	0.7	1.6	5		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Chloroform	28.0	28.0	28.0	1	18.8	7.8	35.1	5		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.2	<1.0	2.0	5		
Styrene	<0.50	<0.50	<0.50	1	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Total Organic Carbon	1.7	1.7	1.7	1	1.7	0.9	2.5	18		
Total Volatile Organics (NonTHM)	1.8	1.8	1.8	1	<1.2	<1.0	1.8	5		
Total Volatile Organics (Unknown)				0	<0.5	<0.5	<0.5	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	5		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.16 Papaschase 2 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	1.0	0.7	1.4	5	(15)	10
Conductivity (uS/cm)				0	397	375	430	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)	7.8	7.7	7.8	4	7.8	7.6	7.9	22	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.15	0.11	0.23	4	0.11	0.05	0.26	39		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	5	0.01	
Barium				0	0.062	0.055	0.067	5	2	
Boron				0	0.010	0.008	0.013	5	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	5	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.200	0.108	0.300	5	1	
Chlorite Dissolved				0	<0.044	<0.005	<0.200	5	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.70	0.66	0.74	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.015	0.010	0.020	4	0.043	<0.010	0.170	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium				0	0.0003	<0.0002	0.0003	5	0.05	
Strontium				0	0.448	0.400	0.477	5	7.0	
Total Chlorine	1.90	1.78	2.06	4	1.95	1.73	2.17	39	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	5	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	5	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	5	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	5	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	5	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	5	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	5	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	5	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	5	10	
Toluene				0	<0.50	<0.50	<0.50	5	60 (24)	
Total Xylenes				0	<1	<1	<1	5	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	5	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	5	2	

2.2.16 Papaschase 2 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	117	109	128	5		
Aluminum				0	0.072	0.023	0.157	5	2.9	0.1/0.2
Ammonia as NH3	0.18	0.15	0.20	4	0.18	0.13	0.21	21		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.026	<0.010	<0.050	5		
Calcium				0	47.7	43.0	52.2	5		
Calcium Hardness				0	123	116	130	2		
Calcium Hardness Calculated				0	116	107	124	3		
Chloride Dissolved				0	6.6	5.8	7.2	5	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0038	0.0030	0.0044	5		
Magnesium				0	13.8	12.2	14.8	5		
Molybdenum				0	0.0008	0.0006	0.0010	5		
Nickel				0	<0.0005	<0.0005	<0.0005	5		
Ortho_P	0.88	0.84	0.92	8	0.87	0.80	0.92	34		
Phosphorus				0	0.95	0.89	0.98	5		
Potassium				0	0.84	0.70	1.10	5		
Silicon				0	1.95	1.55	2.14	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	11.0	7.0	17.1	5	(200)	
Sulphate Dissolved				0	70.5	59.9	79.4	5	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	186	177	194	2		
Total Hardness Calculated				0	171	158	181	3		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.16 Papaschase 2 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.4	0.8	2.2	5		16
Bromoform				0	<0.5	<0.5	<0.5	5		
Chloroform				0	19.5	9.9	26.9	5		
Dibromochloromethane				0	<0.50	<0.50	<0.50	5		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	5		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	5		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	5		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	5		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	5	(15)	
MIBK				0	<1.0	<1.0	<1.0	5		
Styrene				0	<0.50	<0.50	<0.50	5		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	5		
Total Organic Carbon				0	1.8	1.2	2.6	18		
Total Volatile Organics (NonTHM)				0	2.8	<1.0	5.9	5		
Total Volatile Organics (Unknown)				0	0.6	0.6	0.6	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	5		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	5		
Xylene (1,2)				0	<0.5	<0.5	<0.5	5		
Xylene (1,4)				0	<0.5	<0.5	<0.5	5		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.17 Rosslyn 1 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)	1.2	1.2	1.2	1	1.0	0.6	1.4	4	(15)	10
Conductivity (uS/cm)	404	404	404	1	402	397	408	4		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	4		
pH (N/A)	7.8	7.8	7.8	4	7.8	7.7	8.1	20	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.10	0.16	4	0.15	0.08	0.53	37		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	4	0.006	
Arsenic	0.0002	0.0002	0.0002	1	<0.0002	<0.0002	0.0002	4	0.01	
Barium	0.067	0.067	0.067	1	0.061	0.053	0.069	4	2	
Boron	0.011	0.011	0.011	1	0.012	0.010	0.014	4	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.007	
Chlorate Dissolved	0.201	0.201	0.201	1	0.187	0.158	0.204	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	5	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.05	
Copper	0.002	0.002	0.002	1	<0.003	<0.002	<0.005	4	2 (1)	
Fluoride	0.67	0.67	0.67	1	0.69	0.66	0.73	4	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	4	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.020	0.020	0.020	4	0.041	0.020	0.190	21	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	21	1	
Selenium	0.0002	0.0002	0.0002	1	0.0003	0.0002	0.0003	4	0.05	
Strontium	0.428	0.428	0.428	1	0.437	0.426	0.459	4	7.0	
Total Chlorine	1.66	1.56	1.76	4	1.80	1.55	2.07	37	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	10	
Toluene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	4	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.3	<1.0	2.0	4	2	

2.2.17 Rosslyn 1 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total	114	114	114	1	117	112	122	4		
Aluminum	0.073	0.073	0.073	1	0.055	0.020	0.096	4	2.9	0.1/0.2
Ammonia as NH3	0.19	0.18	0.21	4	0.20	0.14	0.23	18		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Bromide Dissolved	<0.030	<0.030	<0.030	1	<0.022	<0.010	<0.030	5		
Calcium	47.1	47.1	47.1	1	47.8	45.2	49.8	4		
Calcium Hardness				0	122	122	122	1		
Calcium Hardness Calculated	118	118	118	1	118	113	123	3		
Chloride Dissolved	6.7	6.7	6.7	1	6.7	5.8	7.6	5	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Iron	0.007	0.007	0.007	1	0.008	0.007	0.011	4	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		
Lithium	0.0042	0.0042	0.0042	1	0.0038	0.0032	0.0042	4		
Magnesium	13.3	13.3	13.3	1	13.9	13.3	14.6	4		
Molybdenum	0.0007	0.0007	0.0007	1	0.0008	0.0007	0.0010	4		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Ortho_P	0.89	0.86	0.90	8	0.88	0.86	0.90	34		
Phosphorus	1.00	1.00	1.00	1	0.97	0.91	1.00	4		
Potassium	0.80	0.80	0.80	1	1.00	0.80	1.50	4		
Silicon	2.29	2.29	2.29	1	2.17	1.76	2.35	4		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	4		
Sodium	13.4	13.4	13.4	1	12.3	10.7	14.4	4	(200)	
Sulphate Dissolved	76.5	76.5	76.5	1	74.5	73.4	76.5	5	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	4		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Total Hardness (mg/L CaCO3)				0	183	183	183	1		
Total Hardness Calculated	172	172	172	1	174	168	181	3		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	4		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	4	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	4		

2.2.17 Rosslyn 1 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane	1.3	1.3	1.3	1	1.2	0.8	1.5	4		16
Bromoform	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Chloroform	34.2	34.2	34.2	1	22.6	8.9	34.2	4		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4	(15)	
MIBK	<1.0	<1.0	<1.0	1	<1.3	<1.0	2.0	4		
Styrene	<0.50	<0.50	<0.50	1	<0.63	<0.50	1.00	4		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Total Organic Carbon	1.9	1.9	1.9	1	1.7	1.0	2.5	17		
Total Volatile Organics (NonTHM)	2.1	2.1	2.1	1	<1.3	<1.0	2.1	4		
Total Volatile Organics (Unknown)				0	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.6	<0.5	1.0	4		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.18 Rosslyn 2 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	0.8	0.6	0.9	5	(15)	10
Conductivity (uS/cm)				0	396	369	419	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)	7.8	7.8	7.9	4	7.8	7.7	8.1	22	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.07	0.12	4	0.11	0.07	0.18	39		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	5	0.01	
Barium				0	0.062	0.054	0.067	5	2	
Boron				0	0.010	0.008	0.012	5	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	6	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.190	0.147	0.206	6	1	
Chlorite Dissolved				0	<0.038	<0.005	<0.200	6	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.68	0.67	0.71	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.020	0.020	0.020	4	0.042	0.020	0.170	22	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	22	1	
Selenium				0	0.0003	<0.0002	0.0003	5	0.05	
Strontium				0	0.452	0.419	0.482	5	7.0	
Total Chlorine	1.43	1.30	1.62	4	1.68	1.30	2.08	39	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	6	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	6	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	6	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	6		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	6	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	6	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	6	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	6	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	6	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	6	10	
Toluene				0	<0.50	<0.50	<0.50	6	60 (24)	
Total Xylenes				0	<1	<1	<1	6	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	6	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	6	2	

2.2.18 Rosslyn 2 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	119	111	127	5		
Aluminum				0	0.067	0.025	0.170	5	2.9	0.1/0.2
Ammonia as NH3	0.23	0.20	0.25	4	0.22	0.17	0.27	20		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.027	<0.010	<0.050	6		
Calcium				0	47.2	44.5	51.0	5		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated				0	115	111	120	3		
Chloride Dissolved				0	6.4	5.6	7.4	6	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	<0.005	<0.005	0.007	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0036	0.0031	0.0042	5		
Magnesium				0	13.9	12.7	14.9	5		
Molybdenum				0	0.0008	0.0006	0.0009	5		
Nickel				0	<0.0005	<0.0005	0.0005	5		
Ortho_P	0.88	0.86	0.90	8	0.88	0.84	0.92	34		
Phosphorus				0	0.96	0.90	0.99	5		
Potassium				0	0.84	0.70	1.00	5		
Silicon				0	1.93	1.70	2.14	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	11.3	7.1	16.5	5	(200)	
Sulphate Dissolved				0	71.8	59.4	78.7	6	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	186	178	194	2		
Total Hardness Calculated				0	170	163	179	3		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.18 Rosslyn 2 Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.4	1.0	1.9	6		16
Bromoform				0	<0.5	<0.5	<0.5	6		
Chloroform				0	23.4	14.6	35.3	6		
Dibromochloromethane				0	<0.50	<0.50	<0.50	6		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	6		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	6		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	6		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	6		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	6	(15)	
MIBK				0	<1.0	<1.0	<1.0	6		
Styrene				0	<0.50	<0.50	<0.50	6		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	6		
Total Organic Carbon				0	1.8	1.3	2.4	18		
Total Volatile Organics (NonTHM)				0	2.1	<1.0	3.8	6		
Total Volatile Organics (Unknown)				0	1.9	1.9	1.9	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	6		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	6		
Xylene (1,2)				0	<0.5	<0.5	<0.5	6		
Xylene (1,4)				0	<0.5	<0.5	<0.5	6		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.19 Thorncliff Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Physical										
Colour (TCU)				0	0.8	<0.5	1.1	5	(15)	10
Conductivity (uS/cm)				0	400	368	420	5		
Odour				0	Inoff	Inoff	Inoff	5		
pH (N/A)	7.8	7.7	7.8	4	7.8	7.6	8.0	22	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.12	0.10	0.14	4	0.12	0.05	0.33	40		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0004	<0.0002	<0.0005	5	0.006	
Arsenic				0	<0.0002	<0.0002	0.0003	5	0.01	
Barium				0	0.062	0.055	0.067	5	2	
Boron				0	0.010	0.008	0.012	5	2	
Bromate Dissolved				0	<0.005	<0.003	<0.005	5	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	5	0.007	
Chlorate Dissolved				0	0.110	<0.080	0.143	5	1	
Chlorite Dissolved				0	<0.044	<0.005	<0.200	5	1	
Chromium				0	<0.0002	<0.0002	<0.0002	5	0.05	
Copper				0	<0.003	<0.002	<0.005	5	2 (1)	
Fluoride				0	0.69	0.64	0.77	5	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	5	0.005	
Manganese				0	<0.002	<0.002	<0.002	5	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	5	0.001	
Nitrate (as N) Dissolved	0.020	0.020	0.020	4	0.043	<0.010	0.180	23	10	
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.009	<0.005	0.010	23	1	
Selenium				0	0.0003	0.0002	0.0003	5	0.05	
Strontium				0	0.446	0.413	0.476	5	7.0	
Total Chlorine	1.57	1.43	1.70	4	1.71	1.26	2.23	40	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	0.0005	5	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.6	<0.5	1.0	5	5	
Carbon Tetrachloride				0	<0.6	<0.5	1.0	5	2	
Chlorobenzene				0	<0.60	<0.50	1.00	5	80 (30)	
Dichlorobenzene (1,2)				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,4)				0	<0.6	<0.5	1.0	5	5 (1)	
Dichloroethane (1,2)				0	<0.6	<0.5	1.0	5	5	
Dichloroethylene (1,1)				0	<0.6	<0.5	1.0	5	14	
Ethylbenzene				0	<0.60	<0.50	1.00	5	140 (1.6)	
Methylene Chloride				0	<0.6	<0.5	1.0	5	50	
Tetrachloroethylene				0	<0.6	<0.5	1.0	5	10	
Toluene				0	<0.60	<0.50	1.00	5	60 (24)	
Total Xylenes				0	<1	<1	<1	5	90	
Trichloroethylene				0	<0.60	<0.50	1.00	5	5	
Vinyl Chloride				0	<1.2	<1.0	2.0	5	2	

2.2.19 Thorncliff Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Inorganics (mg/L) * **										
Alkalinity Total				0	117	110	129	5		
Aluminum				0	0.079	0.027	0.194	5	2.9	0.1/0.2
Ammonia as NH3	0.20	0.18	0.22	4	0.20	0.15	0.26	21		
Beryllium				0	<0.0002	<0.0002	<0.0002	5		
Bromide Dissolved				0	<0.026	<0.010	<0.050	5		
Calcium				0	46.9	43.7	50.4	5		
Calcium Hardness				0	122	116	128	2		
Calcium Hardness Calculated				0	114	109	119	3		
Chloride Dissolved				0	6.9	6.0	8.1	5	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	5		
Iron				0	<0.005	<0.005	<0.005	5	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	5		
Lithium				0	0.0034	0.0030	0.0040	5		
Magnesium				0	13.8	12.4	14.7	5		
Molybdenum				0	0.0008	0.0006	0.0009	5		
Nickel				0	<0.0005	<0.0005	0.0005	5		
Ortho_P	0.91	0.88	0.94	8	0.89	0.66	0.94	40		
Phosphorus				0	0.98	0.93	1.01	5		
Potassium				0	0.84	0.70	1.00	5		
Silicon				0	1.94	1.72	2.11	5		
Silver				0	<0.0002	<0.0002	<0.0002	5		
Sodium				0	13.0	7.3	18.3	5	(200)	
Sulphate Dissolved				0	72.7	59.6	79.7	5	(500)	
Thallium				0	<0.0003	<0.0002	<0.0005	5		
Tin				0	<0.0005	<0.0005	<0.0005	5		
Titanium				0	<0.0005	<0.0005	<0.0005	5		
Total Hardness (mg/L CaCO3)				0	182	174	189	2		
Total Hardness Calculated				0	169	160	178	3		
Vanadium				0	<0.0005	<0.0005	<0.0005	5		
Zinc				0	<0.005	<0.005	<0.005	5	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	5		

2.2.19 Thorncliff Reservoir

September 2024

Parameter	Monthly				YTD				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	*Approval or GCDWQ MAC, (AO or OG)	EPCOR
Secondary Organics (ug/L) * **										
Bromodichloromethane				0	1.4	0.8	2.1	5		16
Bromoform				0	<0.6	<0.5	1.0	5		
Chloroform				0	21.6	10.9	31.1	5		
Dibromochloromethane				0	<0.60	<0.50	1.00	5		
Dichlorobenzene (1,3)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, cis (1,2)				0	<0.60	<0.50	1.00	5		
Dichloroethylene, trans (1,2)				0	<0.60	<0.50	1.00	5		
Dichloropropane (1,2)				0	<0.6	<0.5	1.0	5		
Methyl t-Butyl Ether (MTBE)				0	<0.6	<0.5	1.0	5	(15)	
MIBK				0	<1.2	<1.0	2.0	5		
Styrene				0	<0.60	<0.50	1.00	5		
Tetrachloroethane (1,1,2,2)				0	<0.6	<0.5	1.0	5		
Total Organic Carbon				0	1.8	1.2	2.3	18		
Total Volatile Organics (NonTHM)				0	2.2	<1.0	3.7	5		
Total Volatile Organics (Unknown)				0	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)				0	<0.6	<0.5	1.0	5		
Trichloroethane (1,1,1)				0	<0.6	<0.5	1.0	5		
Xylene (1,2)				0	<0.6	<0.5	1.0	5		
Xylene (1,4)				0	<0.6	<0.5	1.0	5		

TABLE EXPLANATIONS:

* Numbers with no brackets are Health Canada Guidelines for Canadian Drinking Water Quality (GCDWQ) Maximum Acceptable Concentrations (MAC) and/or a limit set out in the Alberta Environment and Parks (AEP) Operating Approval 638-04-01. Limits in brackets indicate Aesthetic Objectives or Operational Guidelines (OG) and are not Approval Limits The EPCOR limits are internal limits set by EPCOR in the Operations Program.

** Primary parameters are those that have health-based limits (MACs) according the AEP Operating Approval 638-04-01

*** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

September 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
Trihalomethanes (ug/L)													100	50
01-SR				0	27.0	15.1	38.9	2	27.0	15.1	38.9	2		
02-SR				0	29.7	20.0	39.4	2	26.5	20.0	39.4	3		
03-SR				0				0	19.0	19.0	19.0	1		
04-SR				0	25.4	15.8	36.3	4	23.3	14.9	36.3	5		
07-RI				0	13.5	9.7	17.3	2	13.2	9.7	17.3	3		
07-SR				0	13.6	10.7	16.4	2	16.0	10.7	20.9	3		
10-SR				0				0	19.8	19.8	19.8	1		
15-SR				0				0	11.4	11.4	11.4	1		
19-SR				0	40.3	40.3	40.3	1	40.3	40.3	40.3	1		
20-DE				0	37.1	37.1	37.1	1	37.1	37.1	37.1	1		
21-DE				0	16.4	16.4	16.4	1	16.4	16.4	16.4	1		
21-SR				0				0	14.4	13.9	14.9	2		
24-SR				0	14.0	13.3	14.6	2	14.0	13.3	14.6	2		
26-DE				0				0	17.0	15.8	18.1	2		
27-SR				0				0	17.5	17.5	17.5	1		
30-SR				0	23.2	8.6	37.0	4	23.2	8.6	37.0	4		
31-DE				0	20.8	13.0	33.5	3	20.5	13.0	33.5	5		
31-RI				0	25.8	15.8	34.0	4	25.6	15.8	34.0	5		
32-SR				0	20.7	12.0	29.4	2	21.9	12.0	29.4	3		
37-SR				0	34.3	34.3	34.3	1	34.3	34.3	34.3	1		
40-SR				0	19.9	9.1	32.2	5	19.6	9.1	32.2	7		
41-SR				0	9.6	9.6	9.6	1	9.6	9.6	9.6	1		
7-RI				0	30.7	30.7	30.7	1	30.7	30.7	30.7	1		
EDMONTON S4				0	24.1	13.0	35.1	2	24.1	13.0	35.1	2		
	Total Count			0				40				58		

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

September 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
HAA (ug/L)													80	40
	25.6	23.9	26.9	4	21.7	13.9	32.7	12	21.7	13.9	32.7	12		
01-SR				0	21.8	16.8	26.7	2	21.8	16.8	26.7	2		
02-SR				0	30.5	19.8	41.1	2	28.8	19.8	41.1	3		
03-SR				0				0	19.6	19.6	19.6	1		
04-SR				0	26.3	19.1	36.2	4	24.9	19.1	36.2	5		
07-RI				0	16.6	14.2	19.0	2	16.2	14.2	19.0	3		
07-SR				0	15.0	12.9	17.0	2	18.1	12.9	24.5	3		
10-SR				0				0	21.5	21.5	21.5	1		
15-SR				0				0	14.2	14.2	14.2	1		
19-SR				0	49.3	49.3	49.3	1	49.3	49.3	49.3	1		
20-DE				0	29.3	29.3	29.3	1	29.3	29.3	29.3	1		
21-DE				0	16.3	16.3	16.3	1	16.3	16.3	16.3	1		
21-SR				0				0	19.0	16.8	21.1	2		
22-DE	25.9	25.9	25.9	1	25.9	25.9	25.9	1	25.9	25.9	25.9	1		
24-SR				0	17.3	14.0	20.5	2	17.3	14.0	20.5	2		
26-DE				0				0	19.7	17.7	21.7	2		
27-SR				0				0	18.0	18.0	18.0	1		
30-SR				0	23.0	11.3	33.1	4	23.0	11.3	33.1	4		
31-DE				0	17.6	14.7	20.5	2	18.2	13.4	24.0	4		
31-RI				0	23.7	14.0	34.8	4	23.9	14.0	34.8	5		
32-SR				0	27.9	18.4	37.4	2	28.5	18.4	37.4	3		
37-SR				0	27.3	27.3	27.3	1	27.3	27.3	27.3	1		
40-SR				0	19.8	12.0	29.5	5	20.8	12.0	29.5	7		
41-DE	26.9	26.9	26.9	1	26.9	26.9	26.9	1	26.9	26.9	26.9	1		
41-SR				0	12.6	12.6	12.6	1	12.6	12.6	12.6	1		
7-RI				0	24.8	24.8	24.8	1	24.8	24.8	24.8	1		
EDMONTON S4				0	32.7	15.7	49.6	2	32.7	15.7	49.6	2		
	Total Count			6				53				71		

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

September 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
NDMA (ug/L)													0.040	0.01
	<0.006	<0.006	<0.006	1	<0.003	<0.001	<0.006	6	<0.003	<0.001	<0.006	6		
03-SR				0				0	0.002	0.002	0.002	1		
04-SR				0	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1		
07-RI				0	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
07-SR				0	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1		
20-DE				0	<0.003	<0.003	<0.003	1	<0.003	<0.003	<0.003	1		
20-OF				0				0	<0.002	<0.002	<0.002	1		
21-DE				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1		
21-SR				0				0	<0.001	<0.001	<0.001	1		
22-DE	<0.004	<0.004	<0.004	1	<0.004	<0.004	<0.004	1	<0.004	<0.004	<0.004	1		
24-SR				0	<0.002	<0.001	<0.002	2	<0.002	<0.001	<0.002	2		
26-DE				0				0	<0.002	<0.001	<0.002	2		
30-SR				0	<0.004	<0.003	<0.005	2	<0.004	<0.003	<0.005	2		
31-DE				0	<0.006	<0.006	<0.006	1	<0.006	<0.002	0.011	3		
31-RI				0	<0.005	<0.003	0.007	3	<0.005	<0.003	0.007	3		
40-SR				0	<0.004	<0.002	<0.006	3	<0.003	<0.002	<0.006	5		
41-DE	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1		
7-RI				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1		
EDMONTON S4				0	<0.001	<0.001	<0.002	2	<0.001	<0.001	<0.002	2		
		Total Count		3				27				36		

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

September 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
Trihalomethanes (ug/L)													100	50
Castledowns Reservoir	31.5	31.5	31.5	1	23.8	7.8	36.2	4	21.9	7.8	36.2	6		
Clareview Reservoir				0	25.1	15.4	36.9	5	24.4	15.4	36.9	6		
Discovery Park Reservoir				0	25.0	13.1	39.7	6	24.5	13.1	39.7	7		
Kaskitayo Reservoir				0	22.2	10.8	33.4	4	21.8	10.8	33.4	5		
Londonderry Reservoir	35.8	35.8	35.8	1	24.1	9.8	35.8	4	23.0	9.8	35.8	6		
Millwoods Reservoir	34.9	34.9	34.9	1	20.7	7.8	38.3	6	20.3	7.8	38.3	8		
North Jasper Place Reservoir				0	24.4	14.0	37.9	5	24.2	14.0	37.9	6		
Ormsby Reservoir	32.4	32.4	32.4	1	20.0	7.7	39.0	5	19.9	7.7	39.0	7		
Papaschase Reservoir 1	29.1	29.1	29.1	1	19.8	8.8	35.4	5	20.4	8.8	35.4	8		
Papaschase Reservoir 2				0	21.2	11.0	28.8	5	21.1	11.0	28.8	6		
Rosslyn Reservoir 1	35.7	35.7	35.7	1	23.8	10.0	35.7	4	23.1	10.0	35.7	6		
Rosslyn Reservoir 2				0	25.2	16.1	37.5	6	24.4	16.1	37.5	7		
Thorncliff Reservoir				0	23.2	12.2	32.9	5	23.1	12.2	32.9	6		
		Total Count		6				64				84		

2.2.20 Routine Distribution System, Field Reservoirs, Fire stations and Staff Residences
Disinfection Byproducts, THM, HAA, NDMA

September 2024

Parameter or Location	Monthly				YTD				12 months running				Limits	
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
				0	20.0	12.5	40.7	8	20.0	12.5	40.7	8		
		Total Count		0				8				8		

Location Code: City is divided into 28 zones by population. Location is coded by zone and site type.

DE - Dead End
FS - Firestation
KT - Key Tap
OF - Other Facilities (stores / Restaurant)
PF - Plant First Customer (Guardhouse)
PR - Private Residence (Non-Staff)
RI - Regional Influent

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

September 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Microbiologicals																
Microcystin				0				0	<0.2	<0.2	<0.2	3	<0.2	<0.2	<0.2	3
Physical																
Colour (TCU)	7.0	3.9	18.4	29	7.4	4.3	23.4	30	9.9	3.9	43.8	270	10.1	4.2	43.6	273
Conductivity (uS/cm)	357	351	362	4	354	348	361	4	361	311	415	39	355	311	416	39
FPA-Intensity (N/A)	0.53	0.31	0.69	4	0.63	0.31	0.94	4	0.78	0.25	2.38	49	0.83	0.31	2.25	49
pH (N/A)	8.4	8.4	8.4	1	8.4	8.4	8.4	1	8.2	8.1	8.4	9	8.3	8.1	8.4	9
Total Dissolved Solids (mg/L)	292	292	292	1	185	185	185	1	219	186	292	9	207	184	240	9
Total Suspended Solids	<2.5	<2.5	<2.5	1	3.4	3.4	3.4	1	16.4	<2.5	53.7	9	31.0	<2.5	154.0	9
Turbidity (NTU)	5	1	49	29	8	2	43	30	10	1	367	270	13	1	257	273
Primary Inorganics (mg/L) **																
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	0.0005	9	<0.0004	<0.0002	<0.0005	9
Arsenic	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0005	0.0002	0.0011	9	0.0006	0.0002	0.0022	9
Barium	0.068	0.068	0.068	1	0.068	0.068	0.068	1	0.077	0.058	0.125	9	0.084	0.057	0.180	9
Boron	0.010	0.010	0.010	1	0.010	0.010	0.010	1	0.012	0.009	0.018	9	0.012	0.008	0.022	9
Cadmium^				0				0	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Cadmium^^	<0.00002	<0.00002	<0.00002	1	0.00003	0.00003	0.00003	1	<0.00003	<0.00002	0.00004	6	0.00004	<0.00002	0.00008	6
Chromium	<0.0002	<0.0002	<0.0002	1	0.0004	0.0004	0.0004	1	0.0013	<0.0002	0.0053	9	0.0019	<0.0002	0.0099	9
Copper	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.004	<0.002	0.005	9	<0.004	<0.002	0.006	9
Fluoride	0.12	0.10	0.15	4	0.12	0.11	0.12	4	0.11	0.08	0.15	39	0.11	0.08	0.13	39
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.0005	<0.0002	0.0013	9	0.0006	<0.0002	0.0027	9
Manganese	0.003	0.003	0.003	1	0.005	0.005	0.005	1	0.015	<0.002	0.050	9	0.021	0.003	0.080	9
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0010	<0.0001	<0.0050	12	<0.0010	<0.0001	<0.0050	12
Nitrate (as N) Dissolved	<0.01	<0.01	0.02	4	<0.01	<0.01	0.01	4	0.06	<0.01	0.19	39	0.05	<0.01	0.18	39
Nitrite (as N) Dissolved	<0.010	<0.010	<0.010	4	<0.010	<0.010	<0.010	4	<0.009	<0.005	<0.010	39	<0.009	<0.005	<0.010	39
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0004	9	0.0003	<0.0002	0.0005	9
Total Chlorine	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	9	<0.03	<0.03	<0.03	9
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	0.0006	<0.0005	0.0007	9	<0.0006	<0.0005	0.0008	9

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

September 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Primary Organics (ug/L) **																
2,4-D				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3
Atrazine				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Benzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3
Bromoxynil				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3
Carbon Tetrachloride	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<1.0	254	<0.5	<0.5	<1.0	254
Chlorobenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Cyanazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Diazinon				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
Dicamba				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Dichloroethane (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	253	<0.5	<0.5	<0.5	253
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<3.0	254	<0.5	<0.5	<3.0	254
Dichlorophenol (2,4)				0				0	<0.2	<0.2	<0.3	3	<0.2	<0.2	<0.3	3
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Dimethoate				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Diuron				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Ethylbenzene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Glyphosate				0				0	<0.3	<0.2	<0.5	3	<0.3	<0.2	<0.5	3
Malathion				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
MCPA				0				0	<0.12	<0.05	<0.25	3	<0.12	<0.05	<0.25	3
Methylene Chloride	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Metolachlor				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
Metribuzin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
NDMA (µg/L)				0				0	<0.0009	<0.0009	<0.0009	1	<0.00099	<0.00099	<0.00099	1
Nitrilotriacetic acid				0				0	<0.40000	<0.400000	<0.40	3	<0.40	<0.40	<0.40	3
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3
Perfluorooctanoic acid (PFOA)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3
Phorate				0				0	<0.25	<0.25	<0.25	3	<0.25	<0.25	<0.25	3
Picloram				0				0	<0.2	<0.1	<0.5	3	<0.2	<0.1	<0.5	3
Simazine				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Terbufos				0				0	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	3
Tetrachloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Toluene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	1.7	271	<0.5	<0.5	2.9	273
Total Xylenes	<1.0	<1.0	<1.0	12	<1.0	<1.0	<1.0	11	<1.0	<1.0	<2.5	254	<1.0	<1.0	<2.5	254
Trichloroethylene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Trifluralin				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

September 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Primary Organics (ug/L) **																
Trihalomethanes	<1.4	<1.0	5.8	12	<1	<1	<1	11	<1.0	<1.0	5.8	254	<1	<1	1	254
Vinyl Chloride	<1	<1	<1	12	<1	<1	<1	11	<1	<1	<1	253	<1	<1	<1	253
Radionuclides (Bq/L)																
Cesium-137				0				0	<0.2	<0.2	<0.2	1	<0.1	<0.1	<0.1	1
Gross Alpha				0				0	<0.14	<0.14	<0.14	1	<0.15	<0.15	<0.15	1
Gross Beta				0				0	0.07	0.07	0.07	1	<0.07	<0.07	<0.07	1
Iodine-131				0				0	<0.3	<0.3	<0.3	1	<0.2	<0.2	<0.2	1
Lead-210				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Radium-226				0				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1
Strontium-90				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Tritium				0				0	<40	<40	<40	1	<40	<40	<40	1

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

September 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Secondary Inorganics (mg/L) ***																
Alkalinity Total	128	124	130	4	130	125	135	4	129	117	149	39	129	112	152	39
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	9	<3	<3	<3	9
Aluminum	0.114	0.114	0.114	1	0.178	0.178	0.178	1	0.955	0.108	4.200	9	1.364	0.078	7.370	9
Ammonia as NH3	<0.05	<0.05	<0.05	4	<0.05	<0.05	<0.05	5	<0.05	<0.05	0.09	50	<0.06	<0.05	0.14	51
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	9	<0.0002	<0.0002	0.0002	9
Calcium Hardness	114	112	116	3	115	109	120	3	117	102	138	34	116	99	140	34
Calcium Hardness Calculated	121	121	121	1	121	121	121	1	120	115	127	5	123	114	147	5
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0008	9	0.0005	<0.0002	0.0018	9
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	9	<0.07	<0.07	<0.07	9
Iron	0.074	0.074	0.074	1	0.133	0.133	0.133	1	0.635	0.051	2.110	9	0.979	0.075	4.850	9
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.001	9	<0.001	<0.001	0.003	9
Lithium	0.0043	0.0043	0.0043	1	0.0042	0.0042	0.0042	1	0.0046	0.0033	0.0076	9	0.0048	0.0033	0.0104	9
Magnesium	14.2	14.2	14.2	1	14.6	14.6	14.6	1	14.1	13.3	15.4	9	14.4	13.2	16.6	9
Molybdenum	0.0007	0.0007	0.0007	1	0.0007	0.0007	0.0007	1	0.0009	0.0007	0.0010	9	0.0009	0.0007	0.0011	9
Nickel	<0.0005	<0.0005	<0.0005	1	0.0005	0.0005	0.0005	1	0.0014	<0.0005	0.0034	9	0.0017	<0.0005	0.0066	9
Ortho_P	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	8	<0.02	<0.02	<0.02	8
Orthophosphate, total				0				0	0.03	<0.02	0.04	2	0.03	<0.02	0.04	2
Phosphorus	0.02	0.02	0.02	1	0.02	0.02	0.02	1	0.04	<0.02	0.09	9	0.04	<0.02	0.15	9
Potassium	0.7	0.7	0.7	1	0.8	0.8	0.8	1	1.1	0.7	2.2	9	1.2	0.7	3.2	9
Silicon	1.83	1.83	1.83	1	1.96	1.96	1.96	1	3.81	1.83	11.20	9	4.77	1.74	18.10	9
Silver^				0				0	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Silver^^	<0.00002	<0.00002	<0.00002	1	<0.00002	<0.00002	<0.00002	1	<0.00002	<0.00002	<0.00002	6	<0.00002	<0.00002	0.00003	6
Sodium	3.9	3.9	3.9	1	3.8	3.8	3.8	1	4.8	3.8	7.0	9	4.3	3.8	5.1	9
Strontium	0.456	0.456	0.456	1	0.462	0.462	0.462	1	0.450	0.419	0.499	9	0.451	0.418	0.504	9
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0003	<0.0002	<0.0005	9	<0.0003	<0.0002	<0.0005	9
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	9	<0.0005	<0.0005	<0.0005	9
Titanium	0.0019	0.0019	0.0019	1	0.0070	0.0070	0.0070	1	0.0254	0.0015	0.1140	9	0.0381	0.0017	0.2010	9
Total Hardness (mg/L CaCO3)	175	171	177	3	175	169	181	3	176	153	211	34	176	155	203	34
Total Hardness Calculated	180	180	180	1	181	181	181	1	177	170	187	5	183	169	216	5
Total Kjeldahl Nitrogen	0.2	0.2	0.2	1	0.2	0.2	0.2	1	0.2	0.1	0.4	8	0.2	<0.1	0.5	8
Total Kjeldahl Nitrogen (TKN)				0				0	0.3	<0.1	1.0	27	0.6	<0.1	9.4	28
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	0.0024	<0.0005	0.0106	9	0.0036	<0.0005	0.0198	9
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.006	<0.005	0.011	9	0.007	<0.005	0.020	9
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	0.003	9	0.002	<0.001	0.005	9

2.2.21 Raw River Water: Physical, Inorganic, Organic and Pesticide Parameters

September 2024

	Current Month								YTD							
	ROSSDALE				E.L. SMITH				ROSSDALE				E.L. SMITH			
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count
Secondary Organics (ug/L) ***																
Aldicarb				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Aldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Bromodichloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Bromoform	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<1.0	271	<0.5	<0.5	<1.0	273
Bromomethane	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19
Carbaryl				0				0	<0.05	<0.05	<0.05	3	<0.05	<0.05	<0.05	3
Carbofuran				0				0	<0.025	<0.025	<0.025	3	<0.025	<0.025	<0.025	3
Chloroethane	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	19
Chloroform	<0.7	<0.5	5.7	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	5.7	271	<0.5	<0.5	<0.5	273
Chloromethane	<5	<5	<5	17	<5	<5	<5	19	<5	<5	<5	17	<5	<5	<5	19
Dibromochloromethane	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Dichloropropane (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Dieldrin				0				0	<0.008	<0.008	<0.008	3	<0.008	<0.008	<0.008	3
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
MIBK	<1	<1	<1	12	<1	<1	<1	11	<1	<1	<1	254	<1	<1	<1	254
Parathion				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Perfluorobutane Sulfonate (PFBS)				0				0	<2	<2	<2	1	<2	<2	<2	1
Perfluorobutanoic acid (PFBA)				0				0	<0.83	<0.02	<2.00	5	<0.83	<0.02	<2.00	5
Perfluorodecanoic Acid (PFDA)				0				0	<2	<2	<2	2	<2	<2	<2	2
Perfluorododecanoic Acid (PFDoA)				0				0	<2	<2	<2	2	<2	<2	<2	2
Perfluoroheptanoic Acid (PFHpA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.008	<0.002	<0.020	3	<0.008	<0.002	<0.020	3
Perfluorohexanoic acid (PFHxA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluorononanoic acid (PFNA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluoropentanoic Acid (PFPeA)				0				0	<0.805	<0.002	<2.000	5	<0.805	<0.002	<2.000	5
Perfluoroundecanoic Acid (PFUnA)				0				0	<2	<2	<2	2	<2	<2	<2	2
Styrene	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	271	<0.5	<0.5	<0.5	273
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<1.0	254	<0.5	<0.5	<1.0	254
Total Organic Carbon	2.4	1.5	3.7	4	2.3	1.5	3.7	4	2.6	1.1	5.4	39	2.6	1.2	5.9	39
Total Volatile Organics (NonTHM)	2.4	1.4	4.1	12	2.7	1.5	4.5	11	2.0	<1.0	6.2	254	2.0	<1.0	6.1	254
Total Volatile Organics (Unknown)				0				0	<0.8	<0.5	2.1	23	<0.8	<0.5	2.1	31
Triallate				0				0	<0.1	<0.1	<0.1	3	<0.1	<0.1	<0.1	3
Trichloroacetic acid				0				0	<1	<1	<1	1	<1	<1	<1	1
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254
Xylene (1,2)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	<0.5	254	<0.5	<0.5	<0.5	254

Secondary Organics (ug/L) ***																
Xylene (1,4)	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	11	<0.5	<0.5	0.6	254	<0.5	<0.5	0.9	254

Table Explanations:

^: Data from January 1 until March 31

^^: Data from April 1 onwards

2.2.22 EFFLUENT WASTESTREAM TO SANITARY SEWER (PLANTS) - REGULATED (EPCOR Drainage Bylaw)

(Lab Neutralization Tank in Water Excellence Lab Building)

Date	pH**
05-Sep-2024	7.9
12-Sep-2024	6.05
19-Sep-2024	9.93
27-Sep-2024	7.91

**Drainage By-Law 18093 Acceptable Range is 6.0 to 11.5

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Aluminum	0.005	mg/L
Ammonia as N	0.05	mg/L
Ammonia as NH3	0.05	mg/L
Antimony	0.0005	mg/L
Arsenic	0.0002	mg/L
Barium	0.002	mg/L
Beryllium	0.0002	mg/L
Boron	0.005	mg/L
Bromate Dissolved	0.005	mg/L
Bromide Dissolved	0.03	mg/L
Cadmium	0.0002	mg/L
Calcium	0.1	mg/L
Cellular ATP	0.1	pg/mL
Chlorate Dissolved	0.01	mg/L
Chloride Dissolved	0.3	mg/L
Chlorite Dissolved	0.005	mg/L
Chromium	0.0002	mg/L
Cobalt	0.0002	mg/L
Coliforms, total	1	PA/100mL
Copper	0.002	mg/L
E. coli	1	PA/100mL
Free Chlorine	0.07	mg/L
Iron	0.005	mg/L
Lanthanum	0.001	mg/L
Lead	0.0002	mg/L
Lithium	0.0002	mg/L
Magnesium	0.1	mg/L
Manganese	0.002	mg/L
Mercury	0.0002	mg/L
Molybdenum	0.0002	mg/L
Nickel	0.0005	mg/L
Nitrate (as N) Dissolved	0.01	mg/L
Nitrite (as N) Dissolved	0.01	mg/L
Ortho_P	0.02	mg/L as P
Phosphorus	0.02	mg/L
Potassium	0.1	mg/L
Run1	10	RLU
Run2	10	RLU
Run3	10	RLU
Selenium	0.0002	mg/L
Silicon	0.05	mg/L
Silver	0.0002	mg/L
Sodium	0.1	mg/L
Strontium	0.002	mg/L
Sulphate Dissolved	0.5	mg/L
Thallium	0.0002	mg/L
Tin	0.0005	mg/L
Titanium	0.0005	mg/L
Total Organic Carbon	0.6	mg/L
Turbidity	0.04	NTU
Uranium	0.0005	mg/L
Vanadium	0.0005	mg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Zinc	0.005	mg/L
Zirconium	0.001	mg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Contract Lab Analysis		
1,1,1-Trichloroethane	0.50	ug/L
1,1,2,2-Tetrachloroethane	0.50	ug/L
1,1,2-Trichloroethane	0.50	ug/L
1,1-Dichloroethane	0.50	ug/L
1,1-Dichloroethylene	0.50	ug/L
1,2,3-Trichlorobenzene	0.50	ug/L
1,2,3-Trichloropropane	0.50	ug/L
1,2,4-Trichlorobenzene	0.50	ug/L
1,2-Dibromoethane	0.50	ug/L
1,2-Dichlorobenzene	0.50	ug/L
1,2-Dichloroethane	0.50	ug/L
1,2-Dichloroethylene, cis	0.50	ug/L
1,2-Dichloroethylene, trans	0.50	ug/L
1,2-Dichloropropane	0.50	ug/L
1,3,5-Trichlorobenzene	0.50	ug/L
1,3-Dichlorobenzene	0.50	ug/L
1,3-Dichlorophropylene, trans	0.50	ug/L
1,3-Dichloropropylene, cis	0.50	ug/L
1,4-Dichloro-2-butene, cis	5.0	ug/L
1,4-Dichloro-2-butene, trans	5.0	ug/L
1,4-Dichlorobenzene	0.50	ug/L
2-Hexanone	20	ug/L
Acetone	20	ug/L
Acrolein	50	ug/L
Acrylonitrile	20	ug/L
Benzene	0.50	ug/L
Bromochloroacetic acid	1.00	ug/L
Bromodichloromethane	0.50	ug/L
Bromoform	0.50	ug/L
Bromomethane	0.50	ug/L
BTEX, Total	1.00	ug/L
Carbon Disulfide	0.50	ug/L
Carbon tetrachloride	0.50	ug/L
Chlorobenzene	0.50	ug/L
Chloroethane	0.50	ug/L
Chloroform	0.50	ug/L
Chloromethane	5.00	ug/L
Dibromoacetic acid	1.00	ug/L
Dibromochloromethane	0.50	ug/L
Dibromoethane	0.50	ug/L
Dichloroacetic acid	1.00	ug/L
Dichlorodifluoromethane	0.50	ug/L
Dichloromethane	1.00	ug/L
Ethanol	250	ug/L
Ethyl Methacrylate	5.0	ug/L
Ethylbenzene	0.50	ug/L
Haloacetic Acids, total (HAA5)	5.00	ug/L
Iodomethane	0.50	ug/L
m+p-Xylene	0.40	ug/L
Methyl Ethyl Ketone (MEK)	20	ug/L
Methyl Isobutyl Ketone (MIBK)	20	ug/L
Methyl-tert-butyl ether (MTBE)	0.50	ug/L
Microcystin	0.20	µg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Monobromoacetic acid	1.00	ug/L
Monochloroacetic acid	1.00	ug/L
NDMA	0.00390	µg/L
o-Xylene	0.30	ug/L
Styrene	0.50	ug/L
Tetrachloroethylene	0.50	ug/L
Toluene	0.50	ug/L
Trichlorfluoromethane	0.50	ug/L
Trichloroacetic acid	1.00	ug/L
Trichloroethylene	0.50	ug/L
Trihalomethanes (THMs), Total	1.0	ug/L
Vinyl chloride	0.50	ug/L
Xylenes, Total	0.50	ug/L

2.2.24 EXPLANATION OF NOTATIONS USED

Concentrations are reported as mg/L unless otherwise indicated.
Alkalinity and Hardness (Ca and Total) are reported as mg $CaCO_3$/L

%T	=	% Transmission
- ve	=	Absent
+ ve	=	Present
µg/L	=	Micrograms per litre (1 µg/L = 0.001 mg/L)
µS/cm	=	Microsiemens per centimeter (unit of conductivity)
2/Y	=	Twice per Year
AO	=	Aesthetic Objective
Bq/L	=	Becquerel(s) per litre (unit of radionuclide concentration)
CCPP	=	Calcium Carbonate Precipitation Potential
CFU	=	Colony Forming Units
Comm	=	Commercial Laboratories
D	=	Daily
EWSI	=	EPCOR Water Services Inc.
FPA	=	Flavour Profile Analysis
GCDWQ	=	Guidelines for Canadian Drinking Water Quality
GM	=	Geometric Mean
HPC	=	Heterotrophic Plate Count
inoff	=	Inoffensive (no objectionable odour)
M	=	Monthly
MAC	=	Maximum Acceptable Concentration
MDL	=	Method Detection Limit
N/A	=	Not Available
ND	=	Not Detected
NTU	=	Nephelometric Turbidity Units
PA	=	Presence/Absence Testing
PBR	=	Performance Based Rates
PHP	=	phenolphthalein
PLPH	=	Provincial Laboratory of Public Health
ppb	=	Parts Per Billion
ppm	=	Parts Per Million
Q	=	Quarterly
QA	=	Quality Assurance
QC	=	Quality Control
RDL	=	Reportable Detection Limit
TCU	=	True Colour Units
TDS	=	Total Dissolved Solids
TOC	=	Total Organic Carbon
WL	=	Water Laboratory
WTP	=	Water Treatment Plant