



EDMONTON WATERWORKS MONTHLY REPORT

March 2024

PROVIDING MORE



TABLE OF CONTENTS

1.0 OPERATIONS AND MAINTENANCE

1.1 HIGHLIGHTS

- 1.1.1 Operations, Rossdale & E.L. Smith Plant
- 1.1.2 Edmonton Incident Report Summary
- 1.1.3 Alberta Environmental Protection Operator Licenses

1.2 OPERATIONS SUMMARY

- 1.2.1 Raw Water Intake Report
- 1.2.2 Treated Water Production Report
- 1.2.3 Raw Water Quality – North Saskatchewan River Report
- 1.2.4 Treated Water Quality Entering the Distribution System Report
- 1.2.4-1 Treated Water Quality Entering the Distribution System Report
- 1.2.4-2 E.L. Smith Treated Water Quality Entering the Distribution System Report
- 1.2.5 Rossdale Filters 1 – 9 Particle Counts Report
- 1.2.6 E.L. Smith Filters 1 – 9 Particle Counts Report
- 1.2.7 E.L. Smith Filters 10 – 18 Particle Counts Report
- 1.2.8 Rossdale Filters 1 – 9 Turbidity Report
- 1.2.9 E.L. Smith Filters 1 – 9 Turbidity Report
- 1.2.10 E.L. Smith Filters 10 – 18 Turbidity Report
- 1.2.11 Combined Filter Effluent Water Quality Report
- 1.2.12 Rossdale UV Disinfection – Filters 1 – 3 Report
- 1.2.13 Rossdale UV Disinfection – Filters 4 – 6 Report
- 1.2.14 Rossdale UV Disinfection – Filters 7 – 9 Report
- 1.2.15 E.L. Smith UV Disinfection – UV Reactors 1 – 4 Report
- 1.2.16 Log Removal Report
- 1.2.17 Liquid Alum Chemical Consumption Report
- 1.2.18 Primary Polymer (Magnafloc LT 27AG) Chemical Consumption Report
- 1.2.19 Carbon Chemical Consumption Report
- 1.2.20 Sodium Hypochlorite Chemical Consumption Report
- 1.2.21 Filter Polymer (Magnafloc LT 7981) Chemical Consumption Report
- 1.2.22 Aqua Ammonia Chemical Consumption Report
- 1.2.22-1 LAS Ammonia Chemical Consumption Report
- 1.2.23 Caustic Soda Chemical Consumption Report
- 1.2.24 Fluoride Chemical Consumption Report
- 1.2.25 Sodium Bisulfite (SBS) Chemical Consumption Report
- 1.2.26 Rossdale Waste Stream Data Report
- 1.2.27 E.L. Smith Waste Stream Data Report
- 1.2.28 Demand/Production Statistics (Estimated HLP Flow)
- 1.2.29 Reservoir Chlorine Residual (mg/L) Part 1
- 1.2.30 Reservoir Chlorine Residual (mg/L) Part 2
- 1.2.31 Orthophosphate Chemical
- 1.2.32 Summary of Mainbreaks Report

2.0 WATER QUALITY

2.1 HIGHLIGHTS

- 2.1.1 Water Quality Objectives for EPCOR
- 2.1.2 Summary of Major Chemical, Microbiological and Physical Parameters
- 2.1.3 Composition of Edmonton Water
- 2.1.4 Summary of Laboratory Analysis
- 2.1.5 Notes on Water Quality

2.2 SUMMARY OF ANALYSES PERFORMED

- 2.2.1 Bacteriological Data: Water Treatment Plants
- 2.2.2 Bacteriological Data: Distribution System
- 2.2.3 Protozoa Data
- 2.2.4 Treated Water Entering the Distribution System
- 2.2.5 Rossdale and E.L. Smith Combined Filter Effluent
- 2.2.6a Routine Distribution System
- 2.2.6b Water Quality Complaint Investigations
- 2.2.7 Castledowns Reservoir
- 2.2.8 Clareview Reservoir
- 2.2.9 Discovery Park Reservoir
- 2.2.10 Kaskitayo Reservoir
- 2.2.11 Londonderry Reservoir
- 2.2.12 Millwoods Reservoir
- 2.2.13 North Jasper Place Reservoir
- 2.2.14 Ormsby Reservoir
- 2.2.15 Papaschase 1 Reservoir
- 2.2.16 Papaschase 2 Reservoir
- 2.2.17 Rosslyn 1 Reservoir
- 2.2.18 Rosslyn 2 Reservoir
- 2.2.19 Thorncliff Reservoir
- 2.2.20 Routine Distribution System Disinfection Byproducts
- 2.2.21 Raw River Water
- 2.2.22 Effluent Wastestream to Sanitary Sewer (Plants)
- 2.2.23 Method Detection Limits
- 2.2.24 Explanation of Notations Used

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 March, Rossdale Plant had no planned shutdowns and no unplanned shutdowns or bypasses.

Date	Type	Bypass Description

In March, E.L. Smith Plant had two planned shutdowns and no unplanned shutdowns or bypasses.

Date	Type	Bypass Description
Mar 6	Planned	13.75 hours shutdown for capital work and maintenance
Mar 20	Planned	10 hours shutdown for capital work and maintenance

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

Chemical Dosing Highlights

In March, Rosssdale 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 – March 2024

EPCOR Incident Number	Description	Date of Incident	AEPA Reference Number
ENV-20240304-323997-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 storm 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.	March 4, 2024	425553
ENV-20240308-809925-v1	About 47 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 storm 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.	March 8, 2024	425711
ENV-20240310-518862-v1	About 49 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 storm 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.	March 10, 2024	425749
ENV-20240326-654876-v1	About 333 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 sanitary sewer system. 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.	March 26, 2024	426300

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
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 III

Operator I

WT II, WD I

Operator I

WT II, WD I, WWT II, WWC 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 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) - CUSTOMER SERVICE

Senior Manager, Customer Service

Manager, Dispatch

Manager, Inspections and Customer Service

Title Alberta Environment Certification Level

Team Lead, Dispatch

Dispatcher Coordinator

Inspector – Water Metering

Inspector – Water Metering

Foreman III

WD I

WD II

WD I

WD III

Manager, Cross Connections

Inspector – Cross Connections

WD 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 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)

March 2024

Day	Rossdale			E.L. Smith	Plants Combined Total
	Plant 1	Plant 2	Plant Total	Plant Total	
1	--	140	140	292	432
2	--	142	142	303	445
3	--	150	150	310	460
4	--	150	150	301	451
5	--	150	150	286	436
6	--	150	150	146	296
7	--	150	150	269	419
8	--	150	150	301	451
9	--	150	150	299	449
10	--	140	140	301	441
11	--	139	139	307	447
12	--	150	150	311	461
13	--	150	150	310	460
14	--	150	150	285	435
15	--	150	150	281	431
16	--	150	150	299	449
17	--	149	149	301	450
18	--	150	150	299	449
19	--	150	150	293	443
20	--	150	150	176	326
21	15	150	165	281	445
22	55	135	190	264	454
23	58	125	183	247	430
24	60	120	180	251	431
25	60	120	180	257	437
26	60	120	180	261	441
27	57	109	166	260	426
28	52	102	154	255	409
29	51	101	153	251	404
30	60	110	170	272	442
31	60	101	161	259	420
Monthly Total	589	4,254	4,843	8,526	13,368
Monthly Min	0.0	101	140	146	
Monthly Max	60	150	190	311	
Monthly Avg	19	137	161	275	431

NOTES: ' -- ' indicates plant offline

1.2.2 Treated Water Production (ML)

March 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	71	205	129	207	293	247	376	64.6
2	65	208	130	207	296	253	383	67.2
3	55	208	138	209	310	267	405	72.9
4	62	203	129	204	297	258	387	76.8
5	73	208	132	202	293	241	373	79.0
6	31	206	132	0.0	277	100	232	77.9
7	62	206	134	0.0	347	228	361	58.7
8	56	206	134	210	294	251	385	58.0
9	70	202	131	204	294	246	377	61.2
10	66	194	118	208	298	254	372	63.2
11	76	187	122	206	301	257	378	61.6
12	38	207	134	255	297	269	403	64.3
13	65	205	133	204	295	259	392	70.0
14	70	206	134	202	288	245	378	73.1
15	67	206	132	203	289	242	374	72.9
16	87	207	135	201	298	257	392	74.8
17	61	209	134	202	298	255	389	77.8
18	66	204	136	205	297	248	384	78.8
19	75	196	134	205	300	238	372	80.3
20	86	196	135	0.0	299	123	258	79.4
21	58	204	134	200	282	237	371	65.7
22	87	203	157	204	273	225	383	67.6
23	86	208	163	198	214	193	356	71.3
24	123	207	161	199	213	207	367	70.4
25	68	208	158	194	272	209	366	70.6
26	64	210	162	201	265	219	381	71.6
27	87	205	148	200	256	214	362	75.3
28	73	204	136	202	212	215	351	74.2
29	74	209	132	201	214	203	335	70.5
30	72	209	150	200	296	226	377	70.7
31	61	208	145	198	214	216	360	74.3
Monthly Total			4,282			7,099	11,381	
Monthly Min	31			0.0				
Monthly Max		210			347			
Monthly Avg			138			229	367	

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

March 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	2.4	4.8	4.2	8.0	8.1	8.1	7.5	8.4	8.0	2.1	4.5	2.7	8.0	8.1	8.0	8.4	9.4	9.1
2	1.5	2.4	1.9	8.0	8.0	8.0	8.3	9.0	8.4	1.4	2.4	1.5	8.0	8.1	8.0	9.1	9.4	9.3
3	1.5	1.7	1.6	8.0	8.0	8.0	7.9	9.0	8.6	1.4	1.9	1.6	8.0	8.1	8.0	8.2	9.1	8.5
4	1.5	1.8	1.6	8.0	8.0	8.0	6.9	7.9	7.5	1.2	1.8	1.6	8.0	8.1	8.0	7.6	8.2	7.8
5	1.2	1.6	1.6	8.0	8.1	8.0	6.8	7.4	7.3	1.2	1.4	1.3	8.0	8.1	8.1	7.2	7.9	7.5
6	1.2	1.3	1.2	8.0	8.1	8.0	6.5	6.8	6.7	1.2	1.4	1.2	8.0	8.0	8.0	6.1	7.9	7.6
7	1.3	3.2	2.0	8.0	8.1	8.0	6.0	6.5	6.2	1.2	3.6	2.9	8.0	8.1	8.0	6.1	7.2	6.5
8	2.1	3.2	2.9	8.1	8.1	8.1	6.4	7.9	7.1	1.9	3.0	2.3	8.0	8.1	8.0	7.2	9.0	8.3
9	1.5	2.1	1.9	8.1	8.2	8.1	7.9	8.3	8.1	1.4	2.0	1.7	8.0	8.1	8.0	8.3	8.7	8.5
10	1.5	3.5	1.8	8.1	8.1	8.1	7.6	8.3	8.0	1.4	1.5	1.5	8.0	8.1	8.0	7.3	8.4	7.9
11	3.4	13	6.7	8.0	8.1	8.0	6.9	9.3	7.8	1.4	1.8	1.6	8.0	8.1	8.0	6.1	7.3	6.9
12	3.1	9.2	4.9	8.0	8.1	8.0	5.8	6.9	6.2	1.5	2.1	1.8	8.0	8.0	8.0	5.1	6.1	5.5
13	2.3	7.2	5.3	8.0	8.1	8.0	4.6	5.9	5.3	1.4	1.8	1.6	8.0	8.1	8.0	4.9	5.1	5.0
14	2.2	3.4	2.7	8.0	8.1	8.0	4.6	5.4	4.9	1.5	2.0	1.7	8.0	8.1	8.1	4.5	5.1	4.8
15	2.5	8.4	3.6	8.0	8.1	8.0	4.8	8.5	5.5	1.6	3.5	2.1	8.0	8.1	8.1	4.6	4.9	4.7
16	4.0	8.4	5.3	8.1	8.1	8.1	6.1	8.5	6.5	2.6	4.9	3.5	8.0	8.1	8.0	4.7	10.7	6.5
17	4.9	7.8	5.9	8.0	8.1	8.0	6.8	13.9	11.9	3.8	5.4	4.4	8.0	8.1	8.0	10.7	14.7	12.9
18	5.5	8.2	6.5	8.0	8.0	8.0	12.5	28.3	18.4	4.4	6.1	4.9	8.0	8.0	8.0	14.7	32.4	24.9
19	6.5	7.7	7.1	7.9	8.0	8.0	28.3	37.7	32.8	5.5	7.2	6.4	8.0	8.0	8.0	32.3	42.7	37.9
20	6.6	14	9.3	7.9	8.0	7.9	37.3	43.6	40.2	6.8	7.9	7.5	7.9	8.0	8.0	33.5	45.4	43.1
21	6.8	11	8.6	7.9	7.9	7.9	40.4	44.8	42.9	4.8	8.6	6.0	7.8	8.0	7.9	40.8	45.4	43.6
22	5.2	7.2	6.2	7.8	8.0	7.9	31.3	41.1	36.6	3.3	8.6	4.4	7.9	8.0	7.9	27.2	40.8	33.3
23	3.7	5.5	4.3	7.9	8.0	7.9	21.8	32.0	25.6	2.8	3.3	3.0	8.0	8.0	8.0	21.6	27.2	23.6
24	3.1	4.4	3.7	7.9	8.0	7.9	18.4	21.8	20.2	2.4	2.9	2.7	8.0	8.0	8.0	17.1	21.6	19.6
25	2.8	3.7	3.0	8.0	8.0	8.0	13.9	18.6	16.1	2.1	2.4	2.3	7.9	8.0	8.0	13.1	17.1	14.9
26	2.4	3.4	2.9	8.0	8.0	8.0	11.2	14.4	12.1	2.0	2.6	2.2	8.0	8.0	8.0	11.9	13.1	12.4
27	2.2	3.4	2.6	8.0	8.0	8.0	10.3	11.6	11.4	1.8	2.6	2.1	8.0	8.1	8.0	9.9	11.9	10.7
28	2.2	3.5	2.8	8.0	8.1	8.0	8.9	10.3	9.8	2.1	2.5	2.2	8.1	8.1	8.1	8.9	10.0	9.5
29	2.2	3.3	2.7	8.0	8.1	8.0	8.0	9.1	8.4	1.9	2.2	2.0	8.0	8.1	8.1	7.7	8.9	8.3
30	2.0	2.8	2.3	8.1	8.1	8.1	7.5	8.5	8.0	2.0	2.5	2.4	8.0	8.1	8.0	7.7	8.5	8.1
31	2.2	2.9	2.7	8.1	8.1	8.1	7.7	8.6	8.1	1.9	2.6	2.2	8.0	8.1	8.1	7.9	8.5	8.2
Monthly Min/Max/Avg	1.2	14	3.9	7.8	8.2	8.0	4.6	44.8	13.4	1.2	8.6	2.7	7.8	8.1	8.0	4.5	45.4	13.7

NOTES: ' -- ' indicates plant offline

1.2.4 Treated Water Quality Entering the Distribution System

March 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	0.04	0.05	0.04	2.01	2.16	2.10	7.8	7.9	7.8	0.68	0.70	0.69	186	0.6	0.06	0.06	0.06	2.03	2.08	2.04	7.7	7.8	7.7	0.77	0.78	0.78	190	1.3
2	0.04	0.06	0.04	1.96	2.16	2.05	7.9	7.9	7.9	0.68	0.69	0.68	192	0.9	0.06	0.06	0.06	1.98	2.04	2.02	7.7	7.7	7.7	0.77	0.78	0.78	193	1.1
3	0.05	0.06	0.05	1.98	2.11	2.04	7.8	7.9	7.9	0.69	0.71	0.69	193	1.2	0.06	0.06	0.06	1.98	2.02	1.99	7.7	7.7	7.7	0.76	0.77	0.77	198	0.9
4	0.05	0.06	0.05	2.01	2.13	2.10	7.8	7.9	7.9	0.71	0.72	0.72	194	1.1	0.06	0.06	0.06	1.99	2.08	2.03	7.6	7.7	7.7	0.76	0.78	0.77	193	1.0
5	0.05	0.06	0.05	2.00	2.18	2.11	7.8	7.9	7.9	0.70	0.72	0.71	198	0.8	0.06	0.06	0.06	1.99	2.08	2.03	7.6	7.7	7.6	0.76	0.78	0.77	198	1.2
6	0.05	0.06	0.05	2.01	2.13	2.10	7.8	7.9	7.9	0.71	0.73	0.73	196	0.6	0.06	0.06	0.06	1.98	2.08	1.85	7.6	7.9	7.7	0.76	0.78	0.76	194	1.4
7	0.04	0.06	0.05	1.91	2.11	1.99	7.8	7.9	7.8	0.70	0.73	0.72	194	0.8	0.06	0.07	0.06	1.98	2.11	2.03	7.5	7.8	7.7	0.78	0.80	0.79	193	1.0
8	0.04	0.06	0.05	1.86	2.08	2.07	7.8	7.9	7.8	0.70	0.71	0.71	194	0.7	0.06	0.06	0.06	2.04	2.11	2.07	7.4	7.8	7.7	0.77	0.79	0.78	193	0.9
9	0.04	0.07	0.05	1.96	2.08	2.05	7.8	7.9	7.8	0.70	0.72	0.71	198	0.9	0.06	0.06	0.06	2.08	2.09	2.08	7.7	7.7	7.7	0.78	0.78	0.78	198	0.9
10	0.03	0.05	0.04	2.01	2.13	2.11	7.7	7.8	7.7	0.70	0.71	0.71	101	0.8	0.05	0.06	0.06	2.05	2.08	2.08	7.7	7.8	7.7	0.78	0.79	0.78	198	0.9
11	0.02	0.04	0.03	1.96	2.16	2.05	7.7	7.7	7.7	0.71	0.72	0.71	198	0.7	0.05	0.06	0.06	2.02	2.08	2.05	7.6	7.8	7.7	0.78	0.80	0.79	191	1.1
12	0.01	0.05	0.03	2.06	2.18	2.17	7.7	7.8	7.7	0.71	0.73	0.72	190	0.6	0.05	0.06	0.05	1.98	2.03	2.01	7.6	7.8	7.7	0.78	0.80	0.79	190	1.0
13	0.02	0.06	0.03	2.11	2.23	2.21	7.8	7.9	7.8	0.72	0.73	0.73	186	0.5	0.05	0.05	0.05	1.98	2.04	2.01	7.8	7.8	7.8	0.77	0.80	0.78	181	0.7
14	0.03	0.05	0.04	2.11	2.18	2.17	7.9	7.9	7.9	0.73	0.74	0.73	185	0.4	0.05	0.05	0.05	2.02	2.03	2.03	7.8	7.8	7.8	0.78	0.80	0.79	180	0.6
15	0.03	0.06	0.04	2.06	2.18	2.16	7.8	7.9	7.8	0.72	0.73	0.72	180	0.4	0.05	0.06	0.06	1.98	2.03	2.00	7.7	7.8	7.8	0.71	0.80	0.74	175	0.7
16	0.04	0.06	0.04	2.06	2.23	2.19	7.8	7.8	7.8	0.73	0.74	0.74	174	0.3	0.06	0.06	0.06	1.98	2.03	2.00	7.7	7.7	7.7	0.70	0.71	0.71	175	0.6
17	0.04	0.05	0.04	2.06	2.13	2.09	7.8	7.8	7.8	0.73	0.73	0.73	176	0.2	0.06	0.06	0.06	1.97	2.02	1.98	7.6	7.7	7.7	0.68	0.70	0.69	176	0.4
18	0.04	0.05	0.04	2.06	2.28	2.18	7.7	7.8	7.8	0.70	0.73	0.71	175	0.5	0.06	0.06	0.06	1.93	1.98	1.97	7.6	7.7	7.7	0.67	0.68	0.68	168	0.5
19	0.03	0.05	0.04	1.81	2.11	1.96	7.7	7.8	7.7	0.69	0.70	0.70	170	0.1	0.06	0.07	0.06	1.88	1.97	1.92	7.6	7.7	7.6	0.66	0.67	0.67	164	0.6
20	0.02	0.04	0.04	2.01	2.21	2.14	7.7	7.8	7.8	0.69	0.72	0.71	165	0.1	0.06	0.06	0.06	1.88	2.08	1.98	7.5	7.8	7.6	0.64	0.69	0.64	162	0.5
21	0.04	0.05	0.04	2.06	2.21	2.13	7.8	7.9	7.9	0.68	0.72	0.70	157	0.1	0.06	0.06	0.06	1.88	1.93	1.90	7.5	7.6	7.5	0.67	0.68	0.68	157	0.3
22	0.04	0.06	0.05	2.01	2.21	2.11	7.8	7.9	7.8	0.68	0.70	0.69	154	0.4	0.06	0.06	0.06	1.93	2.08	1.99	7.5	7.7	7.6	0.67	0.69	0.68	154	0.9
23	0.01	0.04	0.02	2.06	2.21	2.13	7.7	7.8	7.8	0.69	0.70	0.69	153	0.6	0.06	0.06	0.06	1.92	1.93	1.93	7.7	7.8	7.7	0.68	0.69	0.69	158	0.8
24	0.01	0.03	0.02	1.96	2.16	2.07	7.7	7.8	7.7	0.69	0.71	0.70	158	0.5	0.05	0.06	0.06	1.88	1.94	1.92	7.8	7.8	7.8	0.69	0.70	0.70	160	0.8
25	0.01	0.05	0.02	2.06	2.21	2.11	7.8	7.8	7.8	0.70	0.71	0.71	159	0.6	0.05	0.06	0.05	1.91	1.95	1.93	7.7	7.8	7.8	0.69	0.71	0.70	163	0.6
26	0.01	0.04	0.03	2.06	2.21	2.12	7.8	7.9	7.9	0.70	0.72	0.71	168	0.5	0.05	0.06	0.05	1.93	1.98	1.93	7.7	7.7	7.7	0.69	0.71	0.71	168	0.6
27	0.02	0.03	0.03	2.01	2.16	2.10	7.8	7.9	7.8	0.72	0.73	0.72	169	0.7	0.05	0.05	0.05	1.93	1.98	1.96	7.7	7.7	7.7	0.70	0.71	0.71	169	0.5
28	0.02	0.05	0.03	2.01	2.21	2.10	7.8	7.9	7.8	0.73	0.74	0.73	172	0.6	0.05	0.06	0.05	1.91	1.98	1.94	7.6	7.7	7.7	0.71	0.73	0.72	169	0.7
29	0.01	0.07	0.03	1.93	2.06	1.96	7.8	7.9	7.8	0.72	0.74	0.72	174	0.4	0.05	0.06	0.06	1.93	1.98	1.95	7.6	7.6	7.6	0.72	0.73	0.73	172	0.7
30	0.01	0.04	0.02	1.91	2.11	2.02	7.8	7.9	7.8	0.70	0.73	0.72	170	0.3	0.06	0.06	0.06	1.93	1.98	1.94	7.6	7.7	7.7	0.73	0.73	0.73	166	0.5
31	0.01	0.03	0.02	1.91	2.11	2.03	7.8	7.9	7.9	0.68	0.70	0.69	167	0.4	0.05	0.06	0.05	1.93	1.98	1.96	7.7	7.7	7.7	0.73	0.73	0.73	167	0.6
Monthly Min/Max/ Avg	0.01	0.07	0.04	1.81	2.28	2.09	7.7	7.9	7.8	0.68	0.74	0.71	176	0.6	0.05	0.07	0.06	1.88	2.11	1.98	7.4	7.9	7.7	0.64	0.80	0.74	178	0.8

NOTES: ' -- ' indicates plant offline

1.2.4 – 1 ROSSDALE: Treated Water Quality Entering the Distribution System

Date	Temperature (°C)			pH			Hourly Flow (ML per day)		
	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1-Mar	0.5	0.5	0.5	7.8	7.9	7.8	114	135	122
2-Mar	0.5	0.5	0.5	7.9	7.9	7.9	116	135	128
3-Mar	0.5	0.5	0.5	7.8	7.9	7.9	135	159	148
4-Mar	0.5	0.5	0.5	7.8	7.9	7.9	113	148	130
5-Mar	0.5	0.5	0.5	7.8	7.9	7.9	119	141	129
6-Mar	0.5	0.5	0.5	7.8	7.9	7.9	141	165	155
7-Mar	0.5	0.5	0.5	7.8	7.9	7.8	109	130	119
8-Mar	0.5	0.5	0.5	7.8	7.9	7.8	134	155	147
9-Mar	0.5	0.5	0.5	7.8	7.9	7.8	107	123	116
10-Mar	0.5	0.5	0.5	7.7	7.8	7.7	120	139	131
11-Mar	0.5	0.5	0.5	7.7	7.7	7.7	97	115	107
12-Mar	0.5	0.5	0.5	7.7	7.8	7.7	123	151	140
13-Mar	0.5	0.5	0.5	7.8	7.9	7.8	129	154	140
14-Mar	0.5	0.5	0.5	7.9	7.9	7.9	115	134	127
15-Mar	0.5	0.5	0.5	7.8	7.9	7.8	124	142	136
16-Mar	0.5	0.5	0.5	7.8	7.8	7.8	138	156	146
17-Mar	0.5	0.5	0.5	7.8	7.8	7.8	121	142	133
18-Mar	0.6	0.6	0.6	7.7	7.8	7.8	119	142	132
19-Mar	0.6	0.6	0.6	7.7	7.8	7.7	114	133	124
20-Mar	0.6	0.6	0.6	7.7	7.8	7.8	129	150	140
21-Mar	0.5	0.6	0.5	7.8	7.9	7.9	122	140	132
22-Mar	0.6	0.6	0.6	7.8	7.9	7.8	135	153	146
23-Mar	0.5	0.5	0.5	7.7	7.8	7.8	154	175	165
24-Mar	0.5	0.5	0.5	7.7	7.8	7.7	157	179	168
25-Mar	0.5	0.5	0.5	7.8	7.8	7.8	145	170	158
26-Mar	0.5	0.5	0.5	7.8	7.9	7.9	146	170	161
27-Mar	0.5	0.5	0.5	7.8	7.9	7.8	142	163	155
28-Mar	0.5	0.5	0.5	7.8	7.9	7.8	125	146	136
29-Mar	0.5	0.5	0.5	7.8	7.9	7.8	112	130	123
30-Mar	0.5	0.5	0.5	7.8	7.9	7.8	140	163	152
31-Mar	0.5	0.5	0.5	7.8	7.9	7.9	139	157	149
Monthly Min/Max/Avg.	0.5	0.6	0.5	7.7	7.9	7.8	97	179	139

1.2.4 – 2 E. L. Smith: Treated Water Quality Entering the Distribution System

Date	Temperature (°C)			pH			Hourly Flow (ML per day)		
	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1-Mar	0.7	0.7	0.7	7.7	7.8	7.7	238	250	241
2-Mar	0.7	0.7	0.7	7.7	7.7	7.7	251	261	255
3-Mar	0.7	0.7	0.7	7.7	7.7	7.7	271	285	279
4-Mar	0.7	0.7	0.7	7.6	7.7	7.7	241	258	250
5-Mar	0.7	0.7	0.7	7.6	7.7	7.6	242	257	250
6-Mar	0.5	0.8	0.5	7.6	7.9	7.7	80	106	93
7-Mar	0.6	0.6	0.6	7.5	7.8	7.7	216	260	240
8-Mar	0.5	0.6	0.6	7.4	7.8	7.7	240	257	247
9-Mar	0.5	0.6	0.6	7.7	7.7	7.7	227	238	232
10-Mar	0.6	0.6	0.6	7.7	7.8	7.7	246	261	252
11-Mar	0.6	0.6	0.6	7.6	7.8	7.7	250	264	258
12-Mar	0.6	0.6	0.6	7.6	7.8	7.7	271	283	278
13-Mar	0.6	0.6	0.6	7.8	7.8	7.8	244	258	251
14-Mar	0.6	0.6	0.6	7.8	7.8	7.8	246	264	255
15-Mar	0.6	0.6	0.6	7.7	7.8	7.8	234	247	239
16-Mar	0.6	0.6	0.6	7.7	7.7	7.7	250	264	257
17-Mar	0.6	0.6	0.6	7.6	7.7	7.7	251	263	256
18-Mar	0.6	0.6	0.6	7.6	7.7	7.7	243	257	251
19-Mar	0.6	0.6	0.6	7.6	7.7	7.6	234	251	242
20-Mar	0.5	0.8	0.5	7.5	7.8	7.6	116	140	126
21-Mar	0.6	0.6	0.6	7.5	7.6	7.5	214	223	218
22-Mar	0.6	0.6	0.6	7.5	7.7	7.6	221	231	226
23-Mar	0.6	0.6	0.6	7.7	7.8	7.7	205	210	208
24-Mar	0.6	0.6	0.6	7.8	7.8	7.8	205	208	206
25-Mar	0.6	0.6	0.6	7.7	7.8	7.8	207	214	209
26-Mar	0.6	0.6	0.6	7.7	7.7	7.7	210	219	215
27-Mar	0.6	0.6	0.6	7.7	7.7	7.7	211	217	214
28-Mar	0.6	0.6	0.6	7.6	7.7	7.7	206	210	208
29-Mar	0.6	0.6	0.6	7.6	7.6	7.6	206	210	208
30-Mar	0.6	0.6	0.6	7.6	7.7	7.7	224	243	233
31-Mar	0.6	0.6	0.6	7.7	7.7	7.7	204	208	207
Monthly Min/Max/Avg.	0.5	0.8	0.6	7.4	7.9	7.7	80	285	229

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

March 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	4	1	1	3	1	--	--	--	1	2	1	2	33	6	2	15	5	1	3	1	1	3	2	1	14	1	
2	1	7	2	1	24	2	1	9	2	1	20	3	1	4	2	1	5	2	1	7	2	3	23	5	3	13	6	
3	1	13	3	8	38	20	1	20	4	1	5	2	1	17	5	1	11	8	2	22	4	1	4	2	1	5	2	
4	1	37	7	1	10	2	1	19	4	1	45	13	2	23	5	1	4	2	1	37	7	1	37	11	1	43	9	
5	1	12	3	1	30	5	1	24	3	1	41	7	1	41	5	1	18	2	3	26	7	1	23	3	1	14	2	
6	1	29	4	1	14	3	1	8	2	2	38	4	1	24	3	1	6	1	1	13	3	4	27	14	1	19	3	
7	--	--	--	8	41	23	1	1	1	1	4	2	1	15	3	1	28	11	1	22	4	1	5	2	1	24	2	
8	1	25	3	1	9	3	1	8	1	1	42	13	12	28	20	2	12	5	1	4	2	1	20	2	1	9	1	
9	1	30	6	1	4	1	1	14	2	1	13	4	1	22	5	1	5	2	1	44	13	2	28	8	3	43	21	
10	--	--	--	3	25	10	1	9	1	1	6	2	1	2	1	4	8	6	1	15	5	1	7	2	1	13	2	
11	1	11	1	1	12	2	1	42	4	5	28	14	1	22	4	1	14	2	1	16	2	1	44	13	1	31	3	
12	1	1	1	1	7	1	1	14	1	1	14	2	1	5	1	1	13	1	3	26	23	1	27	2	--	--	--	
13	1	9	1	1	25	10	1	45	2	1	14	1	1	14	3	1	13	1	1	4	1	1	1	1	--	--	--	
14	1	5	1	1	2	1	3	6	4	1	32	4	1	22	2	1	9	1	1	17	3	1	10	3	--	--	--	
15	1	19	2	1	1	15	1	7	1	1	2	1	1	1	1	1	2	6	--	--	--	1	43	4	1	20	3	
16	1	1	1	1	8	2	1	22	1	1	2	1	1	1	1	1	13	2	1	15	2	1	3	1	1	2	1	
17	1	1	1	1	5	1	4	13	6	1	12	2	2	14	5	1	2	1	1	4	2	1	2	1	1	1	1	
18	--	--	--	1	3	1	1	8	2	1	3	1	1	4	2	1	1	1	1	6	1	1	1	1	1	1	16	3
19	1	15	2	1	28	1	1	4	1	1	20	1	1	2	1	1	1	1	--	--	--	1	30	3	1	3	1	
20	1	4	1	1	4	1	1	4	1	--	--	--	1	1	1	1	30	3	2	25	4	1	3	2	1	2	1	
21	1	6	2	1	5	2	--	--	--	3	21	6	1	20	13	2	21	6	2	7	4	1	4	2	1	27	4	
22	2	7	4	1	5	3	1	18	5	2	16	9	1	14	5	3	16	10	1	10	6	4	15	7	2	10	6	
23	1	6	1	1	16	2	1	2	1	1	3	1	1	3	1	1	34	2	1	3	1	1	7	2	1	3	1	
24	1	1	1	1	1	1	1	1	1	1	26	3	1	45	1	1	2	1	1	25	2	1	2	1	1	40	1	
25	1	1	1	1	1	1	1	4	1	1	2	1	1	13	2	1	1	1	1	2	1	1	1	1	1	1	23	2
26	1	36	3	1	34	1	1	3	1	1	2	1	1	2	1	1	16	2	1	2	1	2	25	6	1	3	1	
27	1	11	1	1	18	2	1	1	1	1	1	1	1	1	1	1	17	3	1	5	3	1	5	2	1	2	1	
28	1	3	1	1	3	1	1	7	1	3	15	6	--	--	--	1	4	2	1	22	3	1	3	1	1	1	1	
29	1	1	1	1	15	1	1	17	2	1	30	2	3	17	7	1	2	1	1	3	1	1	2	1	--	--	--	
30	1	20	2	1	1	5	1	2	1	1	2	1	1	5	2	1	4	1	1	2	1	1	23	4	1	14	2	
31	1	2	1	--	--	--	1	2	1	1	1	1	1	3	1	1	12	2	1	1	1	1	5	2	1	2	1	
Monthly Min/Max/Avg	1	37	2	1	41	4	1	45	2	1	45	4	1	45	4	1	34	3	1	44	4	1	44	4	1	43	3	

NOTE: '--' indicates filter offline

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

March 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	2	44	8	1	38	7	2	43	9	1	38	7	--	--	--	15	45	22	2	32	9	1	33	8	1	31	6
2	1	44	9	1	41	4	1	44	7	1	29	4	--	--	--	3	36	9	1	30	6	1	29	5	1	35	4
3	1	28	3	1	32	2	1	4	1	1	7	2	--	--	--	1	30	2	1	33	5	1	26	4	1	31	4
4	1	29	3	1	27	3	1	26	4	1	26	3	--	--	--	1	36	4	1	35	5	1	30	4	1	29	3
5	1	45	10	1	44	5	1	43	8	1	44	5	--	--	--	2	45	13	1	10	3	1	31	2	1	26	2
6	1	9	2	1	28	7	1	28	3	1	40	1	--	--	--	4	44	14	6	29	11	2	9	5	4	34	6
7	1	40	5	1	25	2	1	37	5	1	29	7	--	--	--	1	42	8	2	29	5	1	32	4	1	30	5
8	1	45	7	1	44	5	1	42	8	1	26	3	--	--	--	2	45	10	1	25	8	1	17	6	1	13	4
9	1	45	6	1	45	5	1	45	6	1	35	4	--	--	--	1	44	7	1	30	6	1	34	5	1	27	4
10	1	45	6	1	43	4	1	45	4	1	36	5	--	--	--	1	44	8	1	30	5	1	32	4	1	26	3
11	1	25	1	1	14	1	1	42	6	1	22	1	--	--	--	1	43	5	1	30	4	1	30	3	1	29	2
12	1	8	1	1	22	2	1	27	2	1	4	1	--	--	--	1	39	4	1	29	3	1	28	2	1	31	2
13	1	31	3	1	40	1	1	45	5	1	24	2	--	--	--	1	45	5	1	30	3	1	29	2	1	28	2
14	1	3	1	1	5	1	1	3	1	1	2	1	--	--	--	1	29	2	1	27	4	1	27	2	1	30	4
15	1	27	3	1	26	2	1	24	3	1	23	3	--	--	--	1	5	2	2	29	5	1	6	3	1	29	3
16	1	2	1	1	3	1	1	6	1	1	26	1	--	--	--	1	30	3	1	9	4	1	31	4	1	28	4
17	1	29	3	1	34	1	1	24	3	1	10	2	--	--	--	1	28	3	1	28	6	1	28	4	1	9	2
18	1	27	1	1	4	1	1	26	1	1	25	1	--	--	--	1	45	4	2	34	6	1	29	4	1	31	5
19	1	4	1	1	27	1	1	26	3	1	27	1	--	--	--	1	36	6	1	29	6	1	4	2	1	26	4
20	1	26	4	1	32	4	1	31	3	1	19	3	--	--	--	1	31	2	1	9	5	1	19	9	1	30	9
21	1	32	7	1	22	1	1	13	3	1	34	6	--	--	--	4	45	13	3	32	10	1	7	3	1	9	3
22	1	4	1	1	7	1	1	28	2	1	32	2	--	--	--	1	7	1	2	32	9	2	24	5	2	26	4
23	1	38	8	1	35	7	1	3	1	1	10	3	--	--	--	--	--	--	1	9	4	1	32	7	1	29	5
24	1	36	2	1	7	1	1	33	6	1	32	4	--	--	--	--	--	--	1	31	9	3	28	6	1	11	4
25	1	24	3	1	33	3	1	33	5	1	2	1	--	--	--	--	--	--	2	28	7	1	6	3	1	38	4
26	1	36	4	1	35	4	1	10	1	1	32	3	--	--	--	4	34	11	2	30	6	1	29	4	1	30	4
27	1	37	4	1	4	1	1	34	5	1	36	4	--	--	--	3	31	10	2	27	5	1	31	4	1	27	4
28	1	9	2	1	38	6	1	3	1	1	3	1	--	--	--	1	6	3	2	9	4	1	26	4	1	26	5
29	1	35	1	1	3	1	1	34	5	1	31	8	--	--	--	1	25	5	2	28	6	1	27	3	1	31	5
30	1	42	4	1	32	4	1	32	4	1	5	2	--	--	--	1	34	3	2	30	6	1	27	5	1	31	4
31	1	32	3	1	3	1	1	6	2	1	30	3	--	--	--	1	9	3	2	30	6	1	29	4	1	27	3
Monthly Min/Max/Avg	1	45	4	1	45	3	1	45	4	1	44	3	--	--	--	1	45	6	1	35	6	1	34	4	1	38	4

NOTES: '--' indicates filter offline

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

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

NOTES: ' - ' indicates filter offline

1.2.8 Rosedale Filters 1 - 9 Turbidity (NTU)

March 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	0.02	0.02	0.02	0.03	0.03	--	--	--	0.01	0.03	0.01	0.03	0.05	0.03	0.02	0.04	0.02	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02
2	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.03	0.02	0.01	0.06	0.02	0.03	0.03	0.03	0.01	0.02	0.01	0.03	0.04	0.03	0.02	0.05	0.03	0.03	0.04	0.03
3	0.02	0.05	0.03	0.03	0.05	0.03	0.01	0.02	0.01	0.02	0.03	0.02	0.03	0.03	0.03	0.01	0.06	0.02	0.03	0.06	0.04	0.02	0.02	0.02	0.02	0.03	0.02
4	0.02	0.04	0.02	0.02	0.05	0.03	0.01	0.06	0.02	0.01	0.05	0.02	0.03	0.06	0.04	0.01	0.03	0.01	0.02	0.04	0.03	0.02	0.05	0.03	0.02	0.04	0.02
5	0.02	0.05	0.03	0.02	0.05	0.02	0.01	0.02	0.01	0.01	0.03	0.02	0.03	0.05	0.03	0.01	0.04	0.01	0.03	0.05	0.04	0.02	0.03	0.02	0.02	0.04	0.03
6	0.02	0.02	0.02	0.02	0.05	0.03	0.02	0.03	0.02	0.02	0.05	0.02	0.02	0.05	0.03	0.01	0.04	0.03	0.02	0.03	0.03	0.02	0.04	0.03	0.02	0.02	0.02
7	--	--	--	0.02	0.05	0.03	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.01	0.05	0.03	0.02	0.06	0.03	0.02	0.03	0.02	0.02	0.04	0.02
8	0.02	0.04	0.02	0.03	0.05	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.03	0.03	0.03	0.01	0.05	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
9	0.02	0.02	0.02	0.02	0.03	0.03	0.01	0.05	0.02	0.01	0.04	0.02	0.02	0.04	0.03	0.01	0.03	0.01	0.03	0.05	0.03	0.02	0.04	0.03	0.02	0.02	0.02
10	--	--	--	0.02	0.05	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.03	0.01	0.04	0.01	0.03	0.05	0.03	0.02	0.02	0.02	0.02	0.04	0.02
11	0.02	0.04	0.02	0.02	0.06	0.03	0.02	0.03	0.03	0.01	0.02	0.02	0.03	0.05	0.03	0.01	0.04	0.02	0.03	0.03	0.03	0.02	0.05	0.02	0.02	0.03	0.02
12	0.02	0.03	0.02	0.02	0.03	0.02	0.01	0.02	0.01	0.01	0.04	0.02	0.02	0.04	0.03	0.01	0.04	0.01	0.03	0.05	0.03	0.02	0.03	0.02	--	--	--
13	0.02	0.03	0.02	0.02	0.05	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.02	0.01	0.03	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	0.02	0.02	0.02	0.02	0.01	0.03	0.02	0.02	0.04	0.03	0.01	0.01	0.01	0.02	0.04	0.02	0.02	0.02	0.02	--	--	--
15	0.02	0.05	0.02	0.02	0.04	0.02	0.01	0.02	0.02	0.01	0.02	0.01	0.02	0.03	0.03	0.01	0.02	0.01	--	--	--	0.02	0.04	0.02	0.02	0.06	0.02
16	0.02	0.02	0.02	0.03	0.04	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.03	0.03	0.03	0.01	0.04	0.01	0.02	0.05	0.03	0.02	0.02	0.02	0.01	0.02	0.02
17	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.04	0.03	0.02	0.03	0.02	0.03	0.06	0.04	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02
18	--	--	--	0.02	0.02	0.02	0.01	0.03	0.02	0.01	0.02	0.01	0.03	0.03	0.03	0.01	0.01	0.01	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.03
19	0.02	0.04	0.02	0.02	0.05	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.01	0.01	0.01	--	--	--	0.02	0.05	0.02	0.01	0.02	0.02
20	0.02	0.02	0.02	0.03	0.04	0.03	0.01	0.02	0.01	--	--	--	0.02	0.04	0.02	0.01	0.04	0.02	0.03	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.02
21	0.02	0.05	0.03	0.03	0.04	0.03	--	--	--	0.03	0.06	0.03	0.03	0.07	0.06	0.02	0.03	0.02	0.03	0.04	0.04	0.02	0.02	0.02	0.02	0.07	0.02
22	0.03	0.08	0.06	0.02	0.07	0.04	0.02	0.08	0.05	0.02	0.07	0.05	0.03	0.07	0.06	0.01	0.05	0.03	0.02	0.06	0.05	0.02	0.08	0.05	0.02	0.08	0.05
23	0.02	0.03	0.02	0.02	0.07	0.03	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.03	0.03	0.01	0.06	0.03	0.02	0.04	0.02	0.02	0.03	0.02	0.01	0.02	0.02
24	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.01	0.05	0.02	0.02	0.04	0.02	0.01	0.01	0.01	0.02	0.06	0.03	0.01	0.03	0.02	0.01	0.02	0.02
25	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.04	0.01	0.01	0.02	0.01	0.02	0.04	0.03	0.01	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.02	0.02	0.04	0.02
26	0.02	0.05	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.05	0.01	0.02	0.04	0.02	0.02	0.04	0.03	0.02	0.02	0.02
27	0.02	0.02	0.02	0.02	0.05	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.03	0.03	0.03	0.01	0.05	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02
28	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.02	0.01	0.03	0.05	0.04	--	--	--	0.01	0.02	0.01	0.02	0.06	0.03	0.02	0.02	0.02	0.02	0.02	0.02
29	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.05	0.02	0.01	0.03	0.02	0.03	0.06	0.04	0.01	0.01	0.01	0.02	0.03	0.02	0.02	0.02	0.02	--	--	--
30	0.02	0.06	0.03	0.02	0.04	0.02	0.01	0.03	0.01	0.01	0.02	0.01	0.03	0.03	0.03	0.01	0.02	0.01	0.02	0.03	0.02	0.02	0.06	0.03	0.02	0.05	0.02
31	0.02	0.02	0.02	--	--	--	0.01	0.04	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.01	0.05	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02
Monthly Min/Max/Avg	0.02	0.08	0.02	0.02	0.07	0.03	0.01	0.08	0.02	0.01	0.07	0.02	0.02	0.07	0.03	0.01	0.06	0.02	0.02	0.06	0.03	0.01	0.08	0.02	0.01	0.08	0.02

NOTES: '--' indicates filter offline

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

March 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	0.06	0.04	0.01	0.03	0.02	0.03	0.05	0.03	--	--	--	0.05	0.06	0.05	0.00	0.05	0.01	0.02	0.06	0.03	0.00	0.05	0.01
2	0.02	0.04	0.02	0.03	0.05	0.03	0.01	0.05	0.02	0.03	0.05	0.03	--	--	--	0.04	0.06	0.05	0.00	0.05	0.01	0.02	0.07	0.03	0.00	0.05	0.01
3	0.01	0.04	0.02	0.03	0.06	0.03	0.01	0.01	0.01	0.03	0.04	0.03	--	--	--	0.03	0.06	0.04	0.01	0.05	0.01	0.01	0.06	0.03	0.01	0.04	0.01
4	0.01	0.04	0.02	0.03	0.06	0.03	0.01	0.03	0.01	0.03	0.05	0.03	--	--	--	0.03	0.05	0.04	0.01	0.05	0.01	0.02	0.06	0.03	0.01	0.04	0.01
5	0.02	0.04	0.02	0.03	0.06	0.03	0.01	0.03	0.02	0.03	0.05	0.03	--	--	--	0.04	0.06	0.04	0.00	0.01	0.00	0.02	0.06	0.02	0.01	0.04	0.01
6	0.02	0.02	0.02	0.03	0.03	0.03	0.01	0.02	0.01	0.03	0.04	0.03	--	--	--	0.04	0.06	0.05	0.01	0.04	0.02	0.02	0.04	0.03	0.01	0.01	0.01
7	0.01	0.04	0.02	0.03	0.06	0.03	0.01	0.03	0.01	0.02	0.04	0.03	--	--	--	0.03	0.06	0.04	0.00	0.05	0.01	0.02	0.06	0.02	0.00	0.03	0.01
8	0.01	0.04	0.02	0.03	0.07	0.03	0.01	0.04	0.01	0.02	0.04	0.03	--	--	--	0.03	0.06	0.04	0.01	0.04	0.01	0.02	0.04	0.02	0.01	0.05	0.01
9	0.01	0.04	0.02	0.03	0.06	0.03	0.01	0.03	0.01	0.02	0.05	0.03	--	--	--	0.03	0.06	0.04	0.01	0.05	0.01	0.02	0.06	0.03	0.01	0.04	0.01
10	0.01	0.04	0.02	0.03	0.05	0.03	0.01	0.03	0.01	0.03	0.05	0.03	--	--	--	0.03	0.06	0.04	0.01	0.04	0.01	0.01	0.06	0.02	0.01	0.04	0.01
11	0.01	0.04	0.02	0.03	0.05	0.03	0.01	0.03	0.01	0.02	0.05	0.03	--	--	--	0.03	0.06	0.04	0.00	0.05	0.01	0.02	0.06	0.02	0.01	0.03	0.01
12	0.01	0.03	0.01	0.03	0.05	0.03	0.01	0.03	0.01	0.02	0.03	0.03	--	--	--	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.06	0.02	0.01	0.03	0.00
13	0.01	0.03	0.01	0.03	0.05	0.03	0.01	0.03	0.01	0.02	0.04	0.03	--	--	--	0.03	0.06	0.04	0.01	0.04	0.01	0.02	0.05	0.02	0.01	0.03	0.00
14	0.01	0.02	0.01	0.03	0.03	0.03	0.01	0.01	0.01	0.02	0.02	0.02	--	--	--	0.03	0.06	0.03	0.01	0.05	0.01	0.01	0.06	0.02	0.01	0.03	0.01
15	0.01	0.04	0.02	0.03	0.06	0.03	0.01	0.04	0.01	0.02	0.04	0.03	--	--	--	0.03	0.05	0.03	0.00	0.05	0.01	0.02	0.04	0.02	0.01	0.04	0.01
16	0.01	0.01	0.01	0.03	0.03	0.03	0.00	0.01	0.01	0.02	0.05	0.02	--	--	--	0.03	0.06	0.03	0.00	0.02	0.00	0.02	0.06	0.02	0.01	0.06	0.01
17	0.01	0.05	0.02	0.02	0.07	0.03	0.01	0.05	0.01	0.02	0.04	0.03	--	--	--	0.03	0.06	0.03	0.01	0.05	0.01	0.02	0.07	0.03	0.01	0.01	0.00
18	0.01	0.05	0.01	0.02	0.03	0.03	0.01	0.05	0.01	0.02	0.05	0.02	--	--	--	0.03	0.04	0.03	0.00	0.06	0.01	0.02	0.08	0.03	0.01	0.06	0.02
19	0.01	0.02	0.01	0.02	0.07	0.03	0.00	0.05	0.01	0.02	0.06	0.02	--	--	--	0.03	0.08	0.04	0.01	0.05	0.01	0.01	0.03	0.02	0.01	0.07	0.01
20	0.01	0.05	0.02	0.02	0.08	0.04	0.01	0.06	0.01	0.02	0.05	0.03	--	--	--	0.03	0.08	0.03	0.00	0.01	0.01	0.02	0.08	0.04	0.01	0.07	0.03
21	0.01	0.06	0.03	0.02	0.08	0.03	0.00	0.03	0.01	0.02	0.05	0.04	--	--	--	0.03	0.08	0.04	0.00	0.05	0.01	0.02	0.03	0.02	0.01	0.02	0.00
22	0.01	0.02	0.01	0.02	0.04	0.03	0.00	0.04	0.01	0.02	0.05	0.02	--	--	--	0.03	0.06	0.03	0.01	0.05	0.01	0.01	0.07	0.03	0.01	0.07	0.01
23	0.01	0.04	0.02	0.02	0.06	0.04	0.00	0.01	0.01	0.02	0.03	0.02	--	--	--	--	--	--	0.01	0.01	0.00	0.02	0.07	0.03	0.01	0.06	0.01
24	0.01	0.04	0.01	0.02	0.04	0.03	0.00	0.03	0.01	0.02	0.05	0.03	--	--	--	--	--	--	0.01	0.06	0.01	0.01	0.07	0.03	0.01	0.02	0.01
25	0.01	0.04	0.02	0.02	0.07	0.03	0.00	0.03	0.01	0.02	0.02	0.02	--	--	--	--	--	--	0.01	0.04	0.01	0.02	0.02	0.02	0.01	0.05	0.01
26	0.01	0.04	0.02	0.02	0.06	0.03	0.00	0.01	0.01	0.02	0.04	0.03	--	--	--	0.03	0.04	0.03	0.01	0.05	0.01	0.01	0.06	0.02	0.01	0.05	0.01
27	0.01	0.04	0.02	0.02	0.03	0.03	0.01	0.03	0.01	0.02	0.05	0.03	--	--	--	0.03	0.05	0.03	0.01	0.05	0.01	0.02	0.06	0.02	0.01	0.04	0.01
28	0.01	0.02	0.01	0.02	0.06	0.04	0.01	0.01	0.01	0.02	0.02	0.02	--	--	--	0.03	0.03	0.03	0.01	0.01	0.00	0.02	0.06	0.02	0.01	0.04	0.01
29	0.01	0.05	0.01	0.03	0.03	0.03	0.01	0.03	0.01	0.02	0.05	0.04	--	--	--	0.03	0.05	0.03	0.01	0.05	0.01	0.02	0.07	0.02	0.01	0.05	0.01
30	0.01	0.06	0.02	0.03	0.07	0.04	0.01	0.04	0.01	0.02	0.03	0.03	--	--	--	0.03	0.06	0.03	0.01	0.05	0.01	0.01	0.06	0.03	0.01	0.05	0.01
31	0.01	0.04	0.02	0.03	0.08	0.03	0.01	0.01	0.01	0.02	0.05	0.03	--	--	--	0.03	0.04	0.03	0.01	0.05	0.01	0.02	0.07	0.02	0.01	0.04	0.01
Monthly Min/Max/Avg	0.01	0.06	0.02	0.02	0.08	0.03	0.00	0.06	0.01	0.02	0.06	0.03	--	--	--	0.03	0.08	0.04	0.01	0.06	0.01	0.01	0.08	0.02	0.01	0.07	0.01

NOTES: '--' indicates filter offline

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

March 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	0.03	0.07	0.03	0.00	0.06	0.01	0.01	0.03	0.01	0.03	0.03	0.03	0.05	0.09	0.06	0.04	0.05	0.04	0.04	0.04	0.04	0.08	0.04	0.04	0.09	0.05	
2	0.03	0.07	0.04	0.00	0.06	0.01	0.01	0.06	0.02	0.03	0.06	0.03	0.05	0.09	0.06	0.04	0.08	0.04	0.04	0.08	0.04	0.03	0.09	0.04	0.04	0.09	0.05
3	0.02	0.07	0.03	0.00	0.06	0.01	0.01	0.05	0.02	0.03	0.08	0.03	0.05	0.09	0.05	0.04	0.09	0.04	0.04	0.09	0.04	0.03	0.09	0.04	0.04	0.09	0.04
4	0.03	0.06	0.03	0.01	0.05	0.01	0.01	0.05	0.01	0.03	0.07	0.03	0.05	0.08	0.05	0.04	0.08	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.04	0.04
5	0.03	0.06	0.03	0.00	0.03	0.01	0.01	0.05	0.01	0.03	0.07	0.03	0.05	0.08	0.05	0.04	0.08	0.04	0.03	0.07	0.04	0.03	0.07	0.04	0.04	0.08	0.04
6	0.03	0.04	0.03	0.00	0.05	0.02	0.01	0.01	0.01	0.03	0.07	0.04	0.05	0.07	0.06	0.04	0.04	0.04	0.04	0.08	0.04	0.03	0.08	0.05	0.04	0.08	0.05
7	0.03	0.06	0.03	0.00	0.05	0.01	0.01	0.05	0.02	0.03	0.04	0.03	0.05	0.09	0.06	0.04	0.08	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04
8	0.02	0.06	0.03	0.01	0.05	0.01	0.01	0.06	0.01	0.03	0.07	0.03	0.05	0.05	0.05	0.04	0.08	0.04	0.03	0.07	0.04	0.03	0.08	0.04	0.04	0.08	0.04
9	0.02	0.06	0.03	0.01	0.05	0.01	0.01	0.05	0.01	0.03	0.07	0.03	0.05	0.09	0.05	0.04	0.08	0.04	0.03	0.08	0.04	0.03	0.09	0.04	0.04	0.08	0.04
10	0.03	0.04	0.03	0.01	0.05	0.01	0.01	0.05	0.01	0.03	0.04	0.03	0.05	0.09	0.05	0.03	0.05	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.08	0.04
11	0.02	0.07	0.03	0.01	0.05	0.01	0.01	0.05	0.01	0.03	0.07	0.03	0.05	0.09	0.05	0.03	0.08	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.08	0.04
12	0.02	0.06	0.03	0.01	0.05	0.00	0.01	0.04	0.01	0.03	0.06	0.03	0.05	0.09	0.05	0.03	0.08	0.04	0.03	0.07	0.04	0.03	0.08	0.04	0.04	0.08	0.04
13	0.02	0.05	0.03	0.01	0.05	0.01	0.01	0.04	0.01	0.03	0.06	0.03	0.04	0.09	0.05	0.03	0.08	0.04	0.03	0.08	0.04	0.03	0.08	0.04	0.04	0.07	0.04
14	0.03	0.06	0.03	0.00	0.05	0.01	0.01	0.04	0.01	0.03	0.07	0.03	0.05	0.08	0.05	0.03	0.07	0.04	0.04	0.05	0.04	0.03	0.04	0.04	0.04	0.08	0.04
15	0.02	0.06	0.03	0.01	0.03	0.01	0.01	0.05	0.01	0.03	0.07	0.03	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.07	0.04	0.03	0.07	0.04	0.04	0.07	0.04
16	0.02	0.06	0.03	0.00	0.06	0.01	0.00	0.05	0.01	0.03	0.04	0.03	0.05	0.08	0.05	0.04	0.07	0.04	0.04	0.07	0.04	0.03	0.07	0.04	0.04	0.04	0.04
17	0.02	0.03	0.03	0.01	0.06	0.01	0.01	0.05	0.01	0.03	0.07	0.04	0.05	0.08	0.05	0.04	0.08	0.04	0.03	0.04	0.04	0.03	0.08	0.04	0.04	0.08	0.05
18	0.02	0.08	0.04	0.01	0.04	0.01	0.01	0.06	0.02	0.03	0.08	0.04	0.02	0.08	0.05	0.04	0.08	0.04	0.04	0.08	0.05	0.03	0.05	0.04	0.04	0.08	0.05
19	0.02	0.08	0.04	0.01	0.07	0.01	0.00	0.05	0.02	0.03	0.08	0.03	0.04	0.05	0.05	0.04	0.06	0.04	0.03	0.08	0.05	0.03	0.08	0.04	0.04	0.08	0.04
20	0.03	0.08	0.05	0.01	0.08	0.02	0.01	0.01	0.01	0.04	0.06	0.04	0.04	0.04	0.04	0.04	0.08	0.06	0.04	0.04	0.04	0.03	0.08	0.05	0.05	0.06	0.05
21	0.02	0.06	0.03	0.00	0.06	0.02	0.00	0.07	0.01	0.02	0.06	0.03	0.04	0.08	0.05	0.04	0.06	0.04	0.04	0.08	0.05	0.03	0.07	0.04	0.04	0.08	0.05
22	0.02	0.08	0.03	0.01	0.07	0.01	0.00	0.06	0.01	0.03	0.04	0.03	0.03	0.08	0.05	0.03	0.08	0.04	0.03	0.04	0.03	0.03	0.08	0.04	0.05	0.06	0.05
23	0.02	0.08	0.03	0.01	0.05	0.00	0.00	0.06	0.02	0.03	0.07	0.03	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.08	0.05	0.03	0.04	0.04	0.05	0.08	0.06
24	0.02	0.04	0.03	0.01	0.04	0.01	0.01	0.06	0.02	0.03	0.04	0.03	0.04	0.08	0.05	0.04	0.08	0.04	0.03	0.07	0.04	0.03	0.08	0.04	0.05	0.08	0.06
25	0.02	0.08	0.03	0.01	0.06	0.01	0.00	0.05	0.01	0.03	0.06	0.03	0.04	0.08	0.04	0.03	0.07	0.04	0.03	0.05	0.04	0.03	0.07	0.04	0.05	0.07	0.05
26	0.02	0.07	0.03	0.01	0.05	0.01	0.00	0.05	0.01	0.03	0.06	0.03	0.04	0.06	0.05	0.03	0.04	0.04	0.03	0.07	0.04	0.03	0.04	0.03	0.05	0.08	0.05
27	0.02	0.03	0.02	0.01	0.05	0.01	0.00	0.05	0.01	0.03	0.03	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.03	0.04	0.03	0.03	0.07	0.04	0.05	0.08	0.05
28	0.02	0.06	0.03	0.01	0.05	0.01	0.00	0.05	0.01	0.03	0.07	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.04	0.07	0.04	0.03	0.07	0.04	0.05	0.05	0.05
29	0.02	0.07	0.03	0.01	0.06	0.01	0.00	0.02	0.01	0.03	0.07	0.03	0.04	0.05	0.05	0.03	0.04	0.04	0.03	0.07	0.04	0.03	0.07	0.04	0.05	0.08	0.05
30	0.02	0.07	0.03	0.01	0.06	0.01	0.00	0.05	0.01	0.03	0.04	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.07	0.04	0.05	0.08	0.05
31	0.02	0.07	0.03	0.01	0.06	0.01	0.01	0.03	0.01	0.03	0.07	0.03	0.04	0.08	0.05	0.03	0.07	0.04	0.03	0.07	0.04	0.03	0.05	0.04	0.05	0.08	0.05
Monthly Min/Max/Avg	0.02	0.08	0.03	0.01	0.08	0.01	0.00	0.07	0.01	0.02	0.08	0.03	0.02	0.09	0.05	0.03	0.09	0.04	0.03	0.09	0.04	0.03	0.09	0.04	0.04	0.09	0.05

NOTES: ' -- ' indicates filter offline

1.2.11 Combined Filter Effluent Water Quality

March 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	1	6	2	0.04	0.07	0.04	4	10	7	0.03	0.03	0.03
2	1	6	2	0.04	0.03	0.05	3	9	5	0.03	0.03	0.03
3	2	9	4	0.04	0.07	0.04	2	6	3	0.02	0.03	0.03
4	2	13	6	0.04	0.08	0.04	3	7	4	0.02	0.03	0.03
5	1	13	4	0.03	0.05	0.05	2	8	4	0.02	0.03	0.03
6	1	12	3	0.04	0.05	0.04	1	11	2	0.03	0.04	0.01
7	1	9	4	0.03	0.05	0.04	3	10	5	0.02	0.03	0.03
8	1	9	4	0.04	0.07	0.04	3	12	6	0.02	0.03	0.03
9	2	11	5	0.04	0.06	0.05	3	8	5	0.02	0.03	0.03
10	1	6	3	0.04	0.07	0.05	2	7	4	0.02	0.03	0.03
11	1	11	4	0.04	0.08	0.04	1	7	3	0.02	0.03	0.03
12	1	9	2	0.03	0.03	0.04	1	5	2	0.02	0.03	0.02
13	1	7	2	0.02	0.03	0.03	2	7	3	0.02	0.03	0.02
14	1	6	2	0.02	0.04	0.03	2	5	2	0.02	0.03	0.03
15	1	17	1	0.04	0.05	0.05	2	5	3	0.02	0.03	0.03
16	1	3	1	0.04	0.07	0.04	2	5	3	0.02	0.03	0.03
17	1	3	1	0.04	0.06	0.04	2	5	3	0.02	0.03	0.03
18	1	3	1	0.04	0.07	0.04	2	6	4	0.02	0.03	0.03
19	1	6	1	0.03	0.05	0.04	2	6	3	0.02	0.03	0.03
20	1	5	2	0.04	0.08	0.04	1	9	3	0.04	0.05	0.05
21	2	16	5	0.04	0.06	0.05	3	8	5	0.02	0.04	0.03
22	2	9	6	0.04	0.08	0.06	3	6	4	0.02	0.03	0.02
23	1	4	1	0.04	0.07	0.04	3	7	4	0.02	0.03	0.03
24	1	5	1	0.04	0.05	0.04	2	8	5	0.02	0.03	0.03
25	1	15	1	0.04	0.05	0.04	2	7	3	0.02	0.03	0.02
26	1	6	1	0.04	0.07	0.04	3	6	4	0.02	0.03	0.02
27	1	4	1	0.04	0.06	0.04	2	7	4	0.02	0.03	0.02
28	1	3	1	0.04	0.07	0.04	2	5	3	0.02	0.03	0.02
29	1	6	1	0.04	0.07	0.04	2	7	4	0.02	0.03	0.03
30	1	5	1	0.04	0.07	0.04	3	7	4	0.02	0.03	0.03
31	1	9	1	0.03	0.06	0.04	2	6	3	0.02	0.03	0.03
Monthly Min/Max/Avg	1	17	2	0.02	0.08	0.04	1	12	4	0.02	0.05	0.03

NOTES: ' -- ' indicates plant offline

1.2.12 Rossdale UV Disinfection - Filters 1 - 3

March 2024

Filter	1						2						3						Transmittance (%)		
	Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)					
	Day	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max
1	35.4	41.6	37.5	19.4	22.1	20.6	35.3	38.1	36.0	20.7	24.4	22.4	--	--	--	--	--	--	93.9	94.9	94.4
2	35.5	39.0	37.7	17.5	20.3	12.6	35.4	38.2	35.9	16.8	21.9	19.6	34.7	41.9	35.7	18.0	25.9	21.5	93.5	93.9	93.7
3	34.2	38.4	35.6	18.9	26.3	19.1	37.7	39.1	38.6	14.2	16.9	3.4	35.0	44.3	36.4	14.2	21.7	19.4	93.0	93.8	93.3
4	34.9	37.4	36.2	20.0	23.4	16.8	35.3	37.0	35.8	14.0	24.3	19.0	35.1	45.3	37.5	14.0	25.2	16.0	93.8	94.4	94.1
5	35.1	42.2	35.7	19.0	27.2	10.5	35.2	35.7	35.9	21.6	22.4	13.0	35.2	52.3	35.7	14.2	23.1	19.7	94.3	94.6	94.5
6	35.0	37.4	36.2	21.9	26.2	15.2	35.2	36.6	35.7	22.0	28.2	23.9	35.1	43.5	35.9	17.5	22.5	11.2	94.5	94.7	94.6
7	--	--	--	--	--	--	36.6	53.3	44.0	15.4	22.3	12.4	36.8	43.6	40.0	18.5	21.4	20.1	94.5	95.4	95.2
8	35.1	46.1	36.2	19.5	27.2	21.4	35.2	41.7	37.3	19.7	28.1	6.1	39.7	43.7	41.2	17.8	20.0	10.4	94.3	95.4	94.9
9	35.1	39.8	35.7	18.8	24.7	16.4	35.1	36.1	35.7	21.5	28.1	23.9	34.9	36.1	35.6	21.7	27.0	21.4	93.7	94.3	93.9
10	--	--	--	--	--	--	35.6	44.0	37.7	16.5	21.8	8.1	35.3	51.8	36.7	14.5	22.1	18.1	93.8	94.3	94.1
11	35.1	41.4	37.1	19.0	26.6	21.9	35.2	39.1	35.7	19.7	28.4	15.6	35.4	44.4	37.6	17.5	25.1	2.4	93.9	95.1	94.2
12	38.1	44.6	39.4	18.9	22.8	12.6	35.4	43.3	38.3	21.1	23.8	22.5	35.3	40.1	36.5	21.8	26.0	23.7	94.8	95.5	95.2
13	35.4	48.9	37.9	19.0	27.2	20.5	35.7	104.5	42.0	19.0	28.4	7.7	38.8	48.9	41.8	18.9	22.0	18.5	95.3	96.1	95.5
14	42.0	50.9	46.0	19.9	24.6	22.1	36.2	43.8	39.6	22.9	28.1	25.5	37.1	54.2	44.7	17.5	26.2	0.9	96.1	96.3	96.2
15	35.5	38.9	41.0	25.9	27.4	17.2	42.4	45.4	43.5	20.2	23.2	10.9	35.3	40.8	37.5	21.9	26.4	24.2	95.4	96.2	95.9
16	36.3	54.9	44.6	19.8	26.0	23.1	39.0	54.5	43.1	19.7	27.9	3.5	38.6	56.0	46.1	17.8	22.2	16.8	95.3	96.4	95.8
17	48.1	52.8	51.8	16.9	20.2	15.4	37.2	42.9	39.5	22.4	25.6	24.2	35.3	47.9	39.2	17.6	26.3	0.9	94.4	96.4	95.6
18	--	--	--	--	--	--	38.9	46.1	42.4	20.8	24.1	22.3	35.2	39.2	36.7	23.4	26.5	25.1	94.4	95.7	95.4
19	48.2	59.5	51.6	19.5	26.6	11.5	43.9	73.8	53.9	16.1	21.6	12.4	37.8	59.8	49.7	19.9	24.1	21.7	95.6	97.1	96.4
20	45.1	54.1	49.9	20.8	25.6	23.0	43.7	51.1	47.7	19.8	24.8	23.2	50.4	64.3	57.2	16.3	20.5	8.8	96.0	97.1	96.4
21	37.2	48.4	42.9	20.2	23.7	20.6	35.2	45.0	39.2	21.3	24.8	22.9	--	--	--	--	--	--	94.4	96.0	95.2
22	37.3	49.1	41.6	14.7	22.8	5.4	35.4	47.8	37.4	16.5	24.8	20.8	34.7	39.4	35.8	19.6	24.9	20.4	93.1	95.0	93.7
23	37.5	42.6	40.8	21.9	25.3	23.1	35.4	53.6	44.5	15.8	27.6	20.3	38.5	46.8	43.4	17.8	20.8	19.3	94.4	95.7	95.2
24	39.8	52.1	45.6	18.0	22.6	20.7	35.6	46.7	41.0	19.1	24.2	22.3	42.9	58.9	50.7	14.2	18.3	16.4	95.0	95.8	95.5
25	43.3	57.8	49.4	17.0	21.0	16.1	38.5	52.8	44.0	17.9	22.9	20.8	35.2	49.2	56.1	17.7	26.8	9.3	95.0	95.9	95.7
26	35.0	48.4	36.5	19.3	27.6	13.5	40.7	50.0	42.1	17.5	21.2	9.8	35.0	36.2	35.7	22.4	26.5	24.5	94.8	95.8	95.1
27	35.2	44.5	40.0	19.3	26.2	22.3	35.2	43.4	36.8	20.2	28.5	17.8	35.3	43.2	39.0	17.8	22.7	20.2	94.8	95.1	95.0
28	37.2	47.1	42.2	19.1	23.8	21.2	35.4	40.4	37.3	21.8	27.7	24.0	39.4	51.7	45.4	15.7	19.7	16.0	94.8	95.6	95.3
29	45.9	58.9	49.8	15.4	19.3	9.7	39.9	49.2	44.6	18.1	21.9	19.9	35.3	36.2	35.7	25.0	26.3	12.7	95.2	95.6	95.5
30	35.1	39.3	36.4	24.0	27.8	13.9	48.6	54.3	52.1	16.1	18.3	8.0	35.2	41.8	37.8	19.8	25.4	22.6	94.6	95.7	95.4
31	37.9	44.7	41.2	20.4	24.3	22.4	--	--	--	--	--	--	40.5	50.8	45.0	15.8	20.2	18.1	95.1	95.5	95.1
Monthly Total						489.0						506.0						480.0			
Monthly Min/Max/Avg	34.2	59.5	41.3	14.7	27.8		35.1	104.5	40.6	14.0	28.5		34.7	64.3	40.9	14.0	27.0		93.0	97.1	95.0

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

March 2024

Filter	4						5						6						Transmittance (%)		
	Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)					
	Day	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max
1	42.8	51.2	46.4	16.9	19.2	18.0	35.2	43.8	35.9	18.5	23.7	19.8	35.2	35.9	35.6	25.4	30.0	13.0	93.9	94.9	94.4
2	35.0	46.9	39.3	16.1	22.3	10.8	35.0	39.6	36.2	16.5	22.3	19.5	35.0	36.0	35.6	20.1	28.1	24.2	93.5	93.9	93.7
3	35.6	43.7	38.1	17.6	21.0	19.8	38.4	49.3	40.8	12.7	16.6	10.0	35.0	39.6	35.6	12.0	25.9	12.5	93.0	93.8	93.3
4	37.7	50.0	43.2	17.0	22.4	12.9	35.4	36.3	35.7	24.0	27.7	9.8	35.1	37.0	35.6	21.0	23.8	22.8	93.8	94.4	94.1
5	34.8	47.7	38.6	17.8	25.9	22.6	35.4	38.6	36.7	20.1	24.4	18.7	35.3	53.2	36.0	13.2	25.8	8.7	94.3	94.6	94.5
6	40.4	47.0	43.7	17.8	22.8	7.6	35.9	42.7	39.1	18.8	22.6	18.6	35.1	37.7	35.7	21.2	25.6	23.8	94.5	94.7	94.6
7	42.9	51.3	46.3	19.2	22.2	20.9	40.9	50.8	46.0	17.3	20.7	18.7	37.3	43.3	39.8	18.8	21.7	8.9	94.5	95.4	95.2
8	45.1	50.2	47.0	16.9	21.2	14.4	46.8	50.2	48.1	16.9	18.4	3.7	35.2	38.3	35.7	20.6	25.2	11.5	94.3	95.4	94.9
9	36.1	49.0	38.6	17.8	22.6	12.4	35.2	37.9	35.7	20.9	23.4	18.0	33.9	37.3	35.6	21.0	27.9	23.3	93.7	94.3	93.9
10	38.7	47.2	42.9	17.8	21.4	18.6	35.5	42.7	39.4	17.5	21.1	14.4	35.3	36.3	36.2	19.6	21.0	1.3	93.8	94.3	94.1
11	44.9	48.3	47.2	12.8	18.7	6.6	35.7	42.2	38.1	19.0	23.1	8.3	35.2	35.9	35.6	25.2	29.8	18.8	93.9	95.1	94.2
12	39.2	51.9	42.8	17.8	26.4	11.1	38.5	47.0	42.2	19.9	22.3	21.0	35.1	38.9	37.4	20.7	25.6	22.2	94.8	95.5	95.2
13	42.2	55.2	46.2	21.1	24.6	23.0	44.2	103.2	46.0	18.5	20.6	10.5	35.2	40.8	37.4	24.2	26.2	12.6	95.3	96.1	95.5
14	44.4	54.0	48.6	19.6	26.3	16.7	39.7	53.0	43.9	19.0	25.9	21.7	39.8	49.0	44.6	20.1	24.3	21.9	96.1	96.3	96.2
15	46.4	55.5	49.9	19.7	24.2	21.8	44.0	54.2	48.7	17.4	22.7	19.7	42.3	46.8	43.9	19.5	22.6	8.4	95.4	96.2	95.9
16	50.8	67.6	56.8	16.8	20.1	10.5	49.8	51.7	50.7	16.6	17.4	1.2	35.4	45.0	38.3	21.1	29.3	12.9	95.3	96.4	95.8
17	44.6	64.9	49.7	17.3	22.0	12.4	37.6	46.5	40.6	18.9	23.4	6.1	35.4	38.7	37.0	22.5	27.4	25.1	94.4	96.4	95.6
18	44.5	52.0	47.5	20.8	24.8	22.8	38.2	44.1	40.6	22.4	25.7	23.7	37.4	49.3	43.4	19.4	22.9	21.3	94.4	95.7	95.4
19	48.4	75.9	63.3	15.3	22.6	19.1	42.2	63.2	54.3	18.9	23.0	20.7	45.1	48.5	46.3	18.6	20.1	1.4	95.6	97.1	96.4
20	--	--	--	--	--	--	53.1	53.7	57.4	19.7	20.2	2.4	37.6	45.6	42.2	24.2	25.9	21.6	96.0	97.1	96.4
21	38.3	52.1	42.8	17.6	26.1	23.6	35.3	45.1	36.4	19.5	23.3	8.7	35.2	40.8	36.9	21.5	24.5	23.5	94.4	96.0	95.2
22	34.9	50.4	38.7	18.1	24.9	21.6	34.9	42.7	36.3	18.8	25.7	22.2	34.2	44.0	36.7	17.6	25.4	21.2	93.1	95.0	93.7
23	49.2	63.3	57.6	16.1	18.9	17.3	42.2	54.1	47.6	17.1	19.9	18.3	35.2	47.7	41.4	16.9	26.0	14.7	94.4	95.7	95.2
24	45.9	58.8	52.4	15.3	22.2	12.8	43.7	55.0	49.3	16.2	20.9	8.2	35.2	40.1	37.3	22.8	24.9	23.9	95.0	95.8	95.5
25	40.6	56.3	46.5	19.5	24.3	22.5	36.6	44.2	38.9	20.6	25.6	24.5	36.2	44.2	39.9	21.5	25.5	23.7	95.0	95.9	95.7
26	42.3	49.9	45.3	19.2	23.3	21.1	36.2	42.3	38.5	19.7	24.1	21.8	36.4	43.6	38.8	12.6	23.7	16.9	94.8	95.8	95.1
27	46.6	52.5	50.3	17.6	19.7	10.9	40.4	50.1	44.7	16.0	20.2	17.6	35.1	40.0	37.7	20.5	29.4	9.2	94.8	95.1	95.0
28	44.6	46.0	45.1	21.9	22.4	1.4	--	--	--	--	--	--	35.2	38.6	35.6	23.3	31.4	27.0	94.8	95.6	95.3
29	39.8	47.8	43.7	21.5	25.8	23.7	35.2	46.2	37.0	19.4	26.7	3.2	34.1	46.7	41.1	19.0	24.9	21.8	95.2	95.6	95.5
30	45.0	55.2	49.4	18.1	23.1	20.5	35.4	41.8	38.0	21.0	26.3	23.7	45.4	59.0	51.2	14.7	19.2	11.6	94.6	95.7	95.4
31	52.3	63.9	57.7	15.2	18.4	16.7	40.4	50.1	45.5	16.9	21.2	18.9	35.2	37.6	35.6	27.5	32.7	13.3	95.1	95.5	95.1
Monthly Total						494.1						453.4						523.1			
Monthly Min/Max/Avg	34.8	75.9	46.9	12.8	26.4		34.9	103.2	42.3	12.7	27.7		33.9	59.0	38.7	12.0	32.7		93.0	97.1	95.0

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

March 2024

Filter	7						8						9						Transmittance (%)		
	Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)					
	Day	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max	Avg	Min	Max	Total	Min	Max
1	35.1	36.2	35.6	20.0	24.6	22.2	35.2	35.8	35.9	23.4	24.8	3.7	35.2	35.9	35.7	20.7	24.3	13.7	93.9	94.9	94.4
2	35.0	45.3	35.7	13.5	20.4	8.1	35.1	36.0	35.6	23.2	26.0	15.1	35.0	36.1	35.6	21.4	25.8	4.8	93.5	93.9	93.7
3	35.1	36.2	35.6	25.3	30.3	14.8	34.7	36.2	35.6	19.4	23.6	22.0	34.9	36.3	35.6	20.7	25.0	23.3	93.0	93.8	93.3
4	35.1	38.0	35.6	22.8	26.3	20.3	35.3	39.5	36.6	17.5	26.5	10.7	35.5	39.8	35.8	20.0	21.2	11.6	93.8	94.4	94.1
5	35.3	36.1	35.6	24.4	25.4	3.4	34.4	36.9	35.6	20.4	30.6	26.0	35.1	36.2	35.6	21.3	25.5	17.1	94.3	94.6	94.5
6	35.1	36.8	35.7	21.4	24.7	23.4	35.3	37.9	36.5	19.6	26.4	3.4	35.2	36.1	35.7	21.4	23.6	11.4	94.5	94.7	94.6
7	35.2	42.1	38.7	19.7	28.8	13.8	34.8	37.3	35.7	22.8	26.6	24.7	34.8	36.6	35.7	21.8	27.5	20.2	94.5	95.4	95.2
8	34.7	36.0	35.6	23.0	27.2	25.2	35.1	36.3	35.7	21.2	25.2	23.4	35.1	36.3	35.6	22.3	27.1	24.9	94.3	95.4	94.9
9	32.9	37.7	36.2	18.8	24.1	8.8	34.7	38.1	35.6	19.0	30.9	10.0	35.1	36.1	35.6	18.7	23.7	4.1	93.7	94.3	93.9
10	35.2	37.1	35.6	20.5	25.2	15.8	35.1	36.7	35.6	24.0	30.4	25.6	35.0	36.3	35.6	22.9	26.6	22.9	93.8	94.3	94.1
11	35.1	40.1	36.3	20.2	24.0	21.9	35.2	43.9	36.7	20.6	25.1	13.5	35.1	42.8	35.8	13.0	24.1	20.0	93.9	95.1	94.2
12	36.4	43.7	39.7	14.3	24.9	6.0	35.2	39.6	35.7	20.5	29.1	20.6	--	--	--	--	--	--	94.8	95.5	95.2
13	35.2	43.3	37.8	22.5	25.1	23.9	35.0	46.2	39.3	20.6	25.9	22.7	--	--	--	--	--	--	95.3	96.1	95.5
14	39.8	52.1	43.1	18.1	24.1	21.9	45.7	48.0	47.4	13.7	21.0	19.2	--	--	--	--	--	--	96.1	96.3	96.2
15	--	--	--	--	--	--	35.0	38.3	36.5	24.8	29.7	16.2	35.1	49.5	38.9	20.3	28.4	20.9	95.4	96.2	95.9
16	35.3	44.0	38.0	20.3	29.5	24.6	35.2	47.6	40.0	21.5	28.9	24.6	35.1	51.4	42.2	21.0	27.6	24.3	95.3	96.4	95.8
17	36.4	42.1	38.9	21.4	24.8	23.2	41.0	47.2	43.9	18.4	21.8	20.3	44.2	47.4	48.0	19.0	21.4	11.5	94.4	96.4	95.6
18	38.5	47.1	41.9	19.5	22.6	15.5	43.5	48.0	46.7	18.6	18.8	0.1	34.4	46.5	38.8	21.0	30.3	8.8	94.4	95.7	95.4
19	--	--	--	--	--	--	36.0	46.5	41.9	24.8	30.6	25.3	35.2	49.4	42.3	26.0	30.1	27.8	95.6	97.1	96.4
20	39.1	53.6	43.4	19.8	24.6	14.2	37.1	51.1	44.8	21.5	27.3	23.9	41.4	53.2	47.7	21.7	27.0	23.3	96.0	97.1	96.4
21	34.4	44.2	36.5	22.1	24.5	23.7	35.3	42.3	38.3	20.6	23.6	15.4	35.3	36.4	45.0	12.6	26.2	0.5	94.4	96.0	95.2
22	34.9	40.4	35.9	19.4	26.8	23.1	35.3	39.4	36.3	19.6	24.3	7.8	35.0	40.1	36.2	19.9	26.8	21.3	93.1	95.0	93.7
23	39.5	57.3	42.9	14.7	20.6	11.5	35.4	40.8	37.8	22.4	24.9	23.4	38.1	46.2	42.1	20.4	22.9	21.4	94.4	95.7	95.2
24	35.2	46.3	39.8	19.5	24.7	20.0	38.1	44.1	40.5	20.0	22.8	21.8	42.6	48.1	45.6	18.9	20.8	19.9	95.0	95.8	95.5
25	35.2	43.3	37.5	21.6	27.2	25.2	38.2	49.0	42.7	18.8	23.8	13.5	35.2	41.5	40.0	18.8	30.1	9.3	95.0	95.9	95.7
26	34.9	38.7	36.2	21.4	25.9	23.5	35.0	43.0	35.9	20.3	29.8	7.5	35.0	36.1	35.6	25.2	29.9	27.7	94.8	95.8	95.1
27	36.5	42.0	37.5	19.0	22.0	6.4	35.2	38.2	35.9	21.7	29.9	25.6	35.2	42.0	37.3	19.9	26.3	23.5	94.8	95.1	95.0
28	35.1	41.4	35.6	25.4	28.8	16.9	35.0	36.9	35.8	23.3	28.1	25.0	36.2	41.0	37.7	20.7	23.7	9.8	94.8	95.6	95.3
29	35.1	36.8	35.7	25.5	30.1	27.6	35.4	45.6	41.1	19.0	23.6	21.1	--	--	--	--	--	--	95.2	95.6	95.5
30	35.3	44.1	39.0	19.3	26.0	22.4	34.7	47.7	39.4	18.3	33.6	7.9	33.9	44.4	35.8	21.1	30.1	25.3	94.6	95.7	95.4
31	42.0	48.1	44.3	17.1	19.6	11.1	35.3	38.8	36.9	22.1	27.6	23.7	35.3	41.2	37.9	21.5	25.7	23.6	95.1	95.5	95.1
Monthly Total						518.5						543.6						472.9			
Monthly Min/Max/Avg	32.9	57.3	37.9	13.5	30.3		34.4	51.1	38.4	13.7	33.6		33.9	53.2	38.6	12.6	30.3		93.0	97.1	95.0

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

March 2024

Filter	1						2						3						4						Transmittance (%)			
	Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			Flow (MLD)			Dosage (mJ/cm ²)			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	72.2	83.1	78.0	78.3	95.3	87.2	72.3	81.3	77.8	75.0	92.0	83.8	45.1	86.3	63.1	78.6	93.8	86.9	--	--	--	--	--	--	93.4	94.1	93.7	
2	69.9	78.8	75.1	77.1	101.0	90.3	70.9	78.8	74.4	74.1	96.7	87.1	75.1	83.0	79.1	76.4	99.7	90.3	--	--	--	--	--	--	93.5	94.2	93.7	
3	47.2	90.1	78.8	81.8	106.3	94.2	70.6	88.0	78.2	78.2	103.8	91.0	48.3	86.5	66.6	82.4	105.0	94.3	--	--	--	--	--	--	93.9	94.5	94.3	
4	46.0	49.6	47.2	81.4	97.4	91.0	46.6	88.8	73.3	78.6	94.0	87.8	49.5	52.8	50.9	82.4	96.2	90.9	--	--	--	--	--	--	94.0	94.5	94.3	
5	47.0	55.2	51.1	74.8	95.8	84.7	47.1	54.2	50.9	71.4	93.0	81.6	50.6	58.4	54.5	74.9	94.0	84.5	--	--	--	--	--	--	94.1	94.5	94.3	
6	49.8	57.7	51.2	68.0	94.4	37.5	50.8	58.4	49.4	66.2	91.5	36.0	53.7	65.7	54.2	67.9	93.8	37.5	--	--	--	--	--	--	94.5	94.8	94.5	
7	47.8	70.5	58.2	59.6	95.9	80.1	47.8	70.2	58.0	56.2	93.3	76.9	51.2	74.2	62.1	59.4	94.7	79.7	--	--	--	--	--	--	94.5	95.2	94.9	
8	46.8	52.4	48.9	79.3	96.6	89.2	46.3	52.1	48.7	76.5	93.4	85.9	49.8	55.1	52.1	79.6	95.2	89.2	--	--	--	--	--	--	94.3	94.7	94.4	
9	46.0	52.8	48.6	75.5	97.4	88.5	45.7	54.0	48.7	72.9	93.6	85.3	49.6	57.3	52.2	76.4	96.0	88.4	--	--	--	--	--	--	94.2	94.6	94.3	
10	47.7	54.8	50.7	77.3	97.1	89.3	47.3	55.6	50.5	75.1	93.1	86.1	50.9	58.7	54.1	78.3	94.9	89.2	--	--	--	--	--	--	94.1	94.8	94.5	
11	50.6	56.9	53.2	80.8	101.7	92.1	49.7	56.3	53.1	78.5	97.4	88.8	54.1	60.9	56.9	81.9	99.3	92.1	--	--	--	--	--	--	94.5	95.4	94.9	
12	52.6	60.8	58.1	83.0	101.9	90.7	54.2	62.0	57.9	80.9	98.6	87.3	57.8	65.3	62.1	83.7	100.2	90.6	--	--	--	--	--	--	95.4	95.9	95.7	
13	58.6	63.4	60.8	83.4	100.1	92.7	57.4	64.4	60.5	79.4	98.1	89.5	62.7	68.2	64.7	84.2	99.2	92.9	--	--	--	--	--	--	95.9	96.2	96.0	
14	58.8	69.5	64.4	73.3	99.4	86.3	58.4	71.8	64.9	69.8	95.4	82.9	63.4	76.3	68.9	73.1	97.8	86.0	--	--	--	--	--	--	96.0	96.1	96.0	
15	63.1	65.3	68.1	76.0	91.1	85.3	63.9	65.4	73.0	73.1	88.3	81.9	67.1	69.9	72.1	76.2	90.1	84.9	--	--	--	--	--	--	95.8	96.5	96.0	
16	61.0	75.8	69.2	77.4	98.4	89.9	69.5	84.2	77.1	73.7	94.7	86.6	63.1	76.9	70.9	77.9	96.6	89.9	--	--	--	--	--	--	95.2	96.8	96.5	
17	60.5	77.6	67.9	79.8	97.0	89.8	67.0	85.1	74.2	77.2	94.0	86.6	62.6	78.1	68.9	80.2	96.9	89.8	--	--	--	--	--	--	95.9	96.9	96.3	
18	63.2	78.6	69.1	76.8	96.2	87.8	68.1	86.2	75.6	73.3	94.4	84.4	63.5	77.5	70.0	76.8	95.8	87.4	--	--	--	--	--	--	95.9	97.0	96.2	
19	73.3	88.8	80.7	71.0	98.0	84.7	83.1	98.8	89.5	68.1	94.1	81.5	76.8	90.6	82.9	71.1	95.9	84.4	--	--	--	--	--	--	94.6	97.2	96.8	
20	75.5	89.0	57.2	67.2	91.4	48.3	84.2	97.8	63.1	63.1	85.9	46.5	76.6	89.5	57.9	63.7	90.7	48.1	--	--	--	--	--	--	96.4	97.4	97.0	
21	73.4	88.3	80.8	67.2	90.3	80.5	82.1	98.9	90.4	63.0	86.5	77.4	75.9	89.1	82.5	66.8	89.2	80.3	--	--	--	--	--	--	96.6	97.4	96.8	
22	73.6	87.3	80.6	67.5	90.8	79.5	82.4	98.8	89.7	64.1	88.0	76.5	75.4	90.3	82.6	67.4	91.3	79.4	--	--	--	--	--	--	96.6	96.8	96.7	
23	72.6	87.2	81.7	59.1	81.4	69.7	82.5	99.3	92.3	55.9	78.5	66.6	73.5	91.4	84.7	59.6	80.6	69.2	--	--	--	--	--	--	95.9	96.6	96.3	
24	68.5	86.4	77.7	65.6	80.6	72.9	78.8	97.7	88.2	62.9	77.9	69.9	71.3	90.7	80.0	65.8	79.4	72.5	--	--	--	--	--	--	95.9	96.5	96.1	
25	75.4	91.2	83.6	63.7	82.8	74.3	86.9	102.8	95.6	60.8	81.1	71.3	77.8	93.0	86.0	63.5	82.4	74.0	--	--	--	--	--	--	92.7	97.7	97.0	
26	71.6	82.3	77.5	69.8	84.2	77.4	80.0	95.1	88.4	66.2	83.2	74.3	72.2	85.0	79.3	68.5	83.1	77.1	--	--	--	--	--	--	96.2	96.7	96.5	
27	71.6	80.9	75.0	64.9	84.2	75.9	81.4	92.3	85.8	62.8	81.2	72.9	73.0	82.8	77.7	65.7	83.4	75.4	--	--	--	--	--	--	96.2	96.9	96.6	
28	68.4	79.1	73.7	66.6	86.2	76.4	79.7	88.4	83.9	63.5	84.7	73.4	70.7	81.4	75.8	66.6	85.0	75.9	--	--	--	--	--	--	96.1	96.4	96.2	
29	70.1	79.7	75.3	64.0	81.5	72.7	79.7	91.0	85.9	62.3	77.3	69.4	73.1	82.4	77.5	65.4	80.1	72.0	--	--	--	--	--	--	95.9	96.1	96.1	
30	63.6	75.9	69.0	69.3	91.1	80.1	73.0	85.4	79.0	66.0	87.7	76.9	66.2	76.9	70.9	69.4	89.6	79.9	--	--	--	--	--	--	95.9	96.1	96.0	
31	68.1	75.2	71.3	66.2	82.9	76.7	77.8	88.7	81.3	64.0	80.3	73.9	69.7	77.3	73.0	68.0	83.6	76.6	--	--	--	--	--	--	95.9	96.1	96.0	
Monthly Total						2,515.9						2,420.1						2,509.4							0.0			
Monthly Min/Max/Avg	46.0	91.2	67.2	59.1	106.3		45.7	102.8	72.9	55.9	103.8		45.1	93.0	68.8	59.4	105.0		--	--	--	--	--	--	92.7	97.7	95.6	

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

March 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	8.3	8.4	8.4	14	16	15	7.0	7.0	7.0	7.1	7.2	7.2	7.0	8.6	7.9	7.0	7.0	7.0
2	8.3	8.4	8.4	14	15	15	7.0	7.0	7.0	7.2	7.2	7.2	7.4	8.6	7.9	7.0	7.0	7.0
3	8.2	8.3	8.3	14	15	15	7.0	7.0	7.0	7.2	7.2	7.2	7.1	8.5	7.7	7.0	7.0	7.0
4	8.2	8.3	8.3	14	15	15	7.0	7.0	7.0	7.2	7.2	7.2	7.5	8.7	8.1	7.0	7.0	7.0
5	8.2	8.3	8.3	14	15	15	7.0	7.0	7.0	7.2	7.2	7.2	7.5	9.1	8.2	7.0	7.0	7.0
6	8.2	8.4	8.3	14	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.5	9.9	8.7	7.0	7.0	7.0
7	8.3	8.4	8.3	14	15	15	7.0	7.0	7.0	7.2	7.2	7.2	7.5	8.7	8.1	7.0	7.0	7.0
8	8.3	8.4	8.3	13	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.6	8.8	8.1	7.0	7.0	7.0
9	8.3	8.4	8.3	13	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.4	8.5	7.8	7.0	7.0	7.0
10	8.3	8.6	8.4	14	15	15	7.0	7.0	7.0	7.2	7.2	7.2	7.4	9.2	8.2	7.0	7.0	7.0
11	8.3	8.7	8.4	13	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.0	9.3	8.1	7.0	7.0	7.0
12	8.2	8.3	8.3	14	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.2	8.6	7.9	7.0	7.0	7.0
13	8.2	8.4	8.3	13	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.0	8.1	7.6	7.0	7.0	7.0
14	8.2	8.3	8.3	14	14	14	7.0	7.0	7.0	7.2	7.2	7.2	7.8	8.8	8.3	7.0	7.0	7.0
15	8.3	8.3	8.3	14	14	14	7.0	7.0	7.0	7.2	7.2	7.2	7.4	8.6	7.9	7.0	7.0	7.0
16	8.3	8.4	8.3	14	15	14	7.0	7.0	7.0	7.2	7.2	7.2	6.9	8.3	7.6	7.0	7.0	7.0
17	8.1	8.4	8.3	14	15	14	7.0	7.0	7.0	7.1	7.2	7.2	6.9	7.7	7.3	7.0	7.0	7.0
18	8.2	8.4	8.2	13	14	14	7.0	7.0	7.0	7.1	7.2	7.2	6.6	7.8	7.1	7.0	7.0	7.0
19	8.3	8.6	8.5	13	14	14	7.0	7.0	7.0	7.2	7.2	7.2	6.8	9.0	8.0	7.0	7.0	7.0
20	8.6	8.7	8.7	14	15	15	7.0	7.0	7.0	7.2	7.3	7.2	7.8	9.3	8.5	7.0	7.0	7.0
21	8.0	8.7	8.3	14	15	14	7.0	7.0	7.0	7.1	7.2	7.2	6.9	8.5	7.6	7.0	7.0	7.0
22	8.0	8.1	8.1	13	17	15	7.0	7.0	7.0	7.1	7.2	7.2	7.5	9.2	8.1	7.0	7.0	7.0
23	8.1	8.2	8.1	14	16	15	7.0	7.0	7.0	7.1	7.2	7.1	7.2	8.1	7.6	7.0	7.0	7.0
24	8.1	8.2	8.1	14	16	15	7.0	7.0	7.0	7.1	7.2	7.2	7.3	8.8	8.1	7.0	7.0	7.0
25	8.1	8.2	8.1	14	16	14	7.0	7.0	7.0	7.1	7.2	7.2	7.3	8.4	7.9	7.0	7.0	7.0
26	8.0	8.1	8.0	14	14	14	7.0	7.0	7.0	7.2	7.2	7.2	7.5	8.4	8.0	7.0	7.0	7.0
27	7.9	8.1	8.1	13	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.3	8.8	8.1	7.0	7.0	7.0
28	7.8	8.2	8.0	14	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.2	8.4	7.7	7.0	7.0	7.0
29	7.8	8.0	7.9	13	14	14	7.0	7.0	7.0	7.2	7.2	7.2	7.1	8.7	7.8	7.0	7.0	7.0
30	7.8	7.9	7.9	13	14	14	7.0	7.0	7.0	7.2	7.2	7.2	7.2	8.1	7.6	7.0	7.0	7.0
31	7.9	8.2	8.0	13	15	14	7.0	7.0	7.0	7.2	7.2	7.2	7.4	8.4	7.8	7.0	7.0	7.0
Monthly Min/Max/Avg	7.8	8.7	8.2	13	17	14	7.0	7.0	7.0	7.1	7.3	7.2	6.6	9.9	7.9	7.0	7.0	7.0

NOTES: ' -- ' indicates plant offline

1.2.17 Liquid Alum Chemical Consumption

March 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	--	25.0	28.6	--	7,216	7,216	17,212
2	--	25.0	32.4	--	7,333	7,333	20,238
3	--	25.0	32.9	--	7,732	7,732	20,963
4	--	25.0	29.8	--	7,732	7,732	18,484
5	--	25.0	26.7	--	7,732	7,732	15,757
6	--	25.0	25.0	--	7,729	7,729	7,526
7	--	25.0	25.1	--	7,732	7,732	13,929
8	--	25.0	31.7	--	7,733	7,733	19,662
9	--	28.1	35.0	--	8,689	8,689	21,581
10	--	29.4	33.8	--	8,130	8,130	20,946
11	--	30.7	28.6	--	8,815	8,815	18,117
12	--	30.1	26.2	--	9,307	9,307	16,111
13	--	29.1	23.1	--	9,006	9,006	14,773
14	--	25.1	21.0	--	7,778	7,778	12,343
15	--	25.2	20.2	--	7,794	7,794	11,688
16	--	30.0	25.2	--	9,278	9,278	15,551
17	--	37.6	45.3	--	11,546	11,546	28,124
18	--	53.9	68.7	--	16,655	16,655	42,373
19	--	83.0	85.9	--	25,683	25,683	51,838
20	--	76.0	86.8	--	23,502	23,502	31,559
21	56.6	61.5	88.6	1,769	18,983	20,752	51,293
22	58.6	58.6	81.0	6,612	16,355	22,967	44,085
23	69.8	70.1	56.4	8,413	18,038	26,451	28,743
24	65.0	65.0	52.5	8,041	16,082	24,123	27,170
25	61.5	61.5	50.9	7,609	15,198	22,807	26,958
26	44.9	44.8	48.5	5,550	11,095	16,646	26,050
27	42.6	42.6	44.8	4,989	9,612	14,601	24,050
28	40.0	40.0	39.8	4,300	8,423	12,723	20,949
29	39.5	39.6	34.6	4,190	8,276	12,466	17,919
30	34.5	34.5	32.8	4,269	7,823	12,092	18,338
31	34.7	34.7	32.8	4,289	7,232	11,521	17,471
Monthly Total				60,032	344,238	404,270	721,801
Monthly Avg	49.8	39.7	41.8	5,457	11,104	13,041	23,284

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

March 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	--	0.40	0.16	--	56	56	45
2	--	0.40	0.17	--	57	57	53
3	--	0.40	0.21	--	60	60	64
4	--	0.39	0.18	--	59	59	53
5	--	0.35	0.17	--	53	53	49
6	--	0.37	0.17	--	55	55	25
7	--	0.40	0.17	--	60	60	45
8	--	0.40	0.17	--	60	60	51
9	--	0.40	0.20	--	60	60	60
10	--	0.40	0.22	--	54	54	65
11	--	0.40	0.21	--	56	56	64
12	--	0.40	0.20	--	60	60	60
13	--	0.40	0.19	--	60	60	60
14	--	0.40	0.19	--	60	60	53
15	--	0.40	0.17	--	60	60	48
16	--	0.40	0.17	--	60	60	50
17	--	0.40	0.22	--	60	60	66
18	--	0.40	0.25	--	60	60	75
19	--	0.40	0.30	--	60	60	88
20	--	0.40	0.30	--	60	60	54
21	0.40	0.40	0.32	6	60	66	90
22	0.40	0.40	0.30	22	54	76	80
23	0.37	0.37	0.19	22	46	68	48
24	0.35	0.35	0.20	21	42	63	50
25	0.35	0.35	0.20	21	42	63	51
26	0.35	0.35	0.20	21	42	63	52
27	0.35	0.35	0.20	20	38	58	51
28	0.35	0.35	0.18	18	36	54	45
29	0.35	0.35	0.17	18	36	54	43
30	0.35	0.35	0.17	21	39	60	47
31	0.35	0.35	0.17	21	35	56	45
Monthly Total				211	1,638	1,848	1,730
Monthly Avg	0.36	0.38	0.20	19	53	60	56

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

March 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	--	0.66	3.18	--	99	99	894
16	--	9.81	10.5	--	1,471	1,471	3,154
17	--	24.6	24.3	--	3,654	3,654	7,322
18	--	44.9	52.1	--	6,741	6,741	15,583
19	--	87.7	90.0	--	13,162	13,162	26,350
20	--	73.8	67.6	--	11,063	11,063	11,926
21	46.4	55.2	53.1	704	8,266	8,970	14,904
22	38.5	37.2	34.2	2,109	5,032	7,141	9,020
23	25.0	17.4	17.4	1,463	2,176	3,639	4,285
24	11.3	10.2	10.1	680	1,230	1,910	2,540
25	4.76	6.06	6.21	285	726	1,011	1,594
26	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--
28	--	--	--	--	--	--	--
29	--	--	--	--	--	--	--
30	--	--	--	--	--	--	--
31	--	--	--	--	--	--	--
Monthly Total				5,241	53,619	58,860	97,572
Monthly Avg	25.2	33.4	33.5	1,048	4,874	5,351	8,870

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

March 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	--	3.23	--	56,444	58,110	3.24
2	--	3.20	--	56,922	58,775	3.20	127,675
3	--	3.14	--	58,857	61,572	3.25	132,480
4	--	3.10	--	58,042	60,641	3.14	124,227
5	--	3.04	--	57,075	58,820	3.10	116,561
6	--	2.87	--	53,786	55,565	2.99	57,392
7	--	2.83	--	53,131	56,113	3.12	110,513
8	--	2.90	--	54,272	57,149	3.19	126,149
9	--	2.95	--	55,238	58,140	3.23	126,848
10	--	2.93	--	48,999	50,625	3.16	125,116
11	--	2.96	--	51,590	54,402	3.07	124,414
12	--	2.96	--	55,457	58,806	2.98	116,954
13	--	2.94	--	55,038	57,849	2.98	121,559
14	--	2.84	--	53,299	56,534	2.94	110,021
15	--	2.93	--	54,918	57,843	2.92	107,880
16	--	3.10	--	58,096	60,138	3.10	121,830
17	--	3.22	--	59,936	63,306	3.54	139,940
18	--	3.58	--	67,055	71,581	4.12	162,228
19	--	4.13	--	77,466	81,460	4.88	188,095
20	--	3.92	--	73,499	76,542	4.48	104,023
21	0.03	3.73	62	69,853	72,423	4.38	161,752
22	3.56	3.61	24,363	61,049	88,587	4.11	142,758
23	3.16	3.16	23,045	49,251	74,893	3.95	128,410
24	3.09	3.09	23,150	46,289	73,095	3.74	123,411
25	2.95	2.92	22,120	43,692	69,482	3.62	122,328
26	3.00	2.90	22,515	43,500	68,457	3.62	123,920
27	2.98	2.90	21,146	39,665	63,192	3.42	117,219
28	2.89	2.86	18,816	36,517	57,848	3.37	112,941
29	2.76	2.75	17,726	34,921	56,072	3.17	104,772
30	2.82	2.80	21,173	38,504	63,700	3.17	113,404
31	2.77	2.80	20,782	35,360	59,158	3.12	106,070
Monthly Total			214,897	1,657,721	1,960,880		3,825,376
Monthly Avg	2.73	3.11	19,536	53,475	63,254	3.43	123,399

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

March 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.15	0.11	19	32
2	0.15	0.13	20	40
3	0.15	0.15	21	46
4	0.15	0.13	20	39
5	0.15	0.12	20	33
6	0.15	0.11	20	16
7	0.15	0.12	20	32
8	0.15	0.15	20	45
9	0.15	0.14	21	42
10	0.14	0.11	18	33
11	0.14	0.10	18	31
12	0.14	0.09	20	27
13	0.14	0.08	19	25
14	0.15	0.08	20	23
15	0.15	0.08	20	22
16	0.15	0.08	21	24
17	0.15	0.08	20	24
18	0.15	0.09	20	26
19	0.15	0.10	20	29
20	0.15	0.10	20	17
21	0.15	0.12	20	35
22	0.16	0.14	26	37
23	0.15	0.11	25	27
24	0.14	0.16	23	41
25	0.12	0.15	19	39
26	0.10	0.15	16	40
27	0.10	0.15	15	39
28	0.10	0.14	14	37
29	0.10	0.15	14	37
30	0.10	0.15	15	40
31	0.10	0.14	14	37
Monthly Total			600	1,013
Monthly Avg	0.13	0.12	19	33

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

March 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.64	--	449	--
2	0.64	--	458	--
3	0.64	--	487	--
4	0.63	--	462	--
5	0.62	--	456	--
6	0.62	--	452	--
7	0.62	--	456	--
8	0.62	--	460	--
9	0.62	--	452	--
10	0.62	--	407	--
11	0.62	--	421	--
12	0.62	--	456	--
13	0.62	--	455	--
14	0.62	--	454	--
15	0.62	--	454	--
16	0.62	--	462	--
17	0.62	--	454	--
18	0.62	--	455	--
19	0.62	--	456	--
20	0.62	--	458	--
21	0.62	--	453	--
22	0.62	--	535	--
23	0.62	--	552	--
24	0.62	--	540	--
25	0.62	--	537	--
26	0.62	--	541	--
27	0.62	--	500	--
28	0.62	--	461	--
29	0.62	--	455	--
30	0.62	--	509	--
31	0.62	--	482	--
Monthly Total			14,631	--
Monthly Avg	0.62	--	472	--

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

March 2024

Day	Dosage (mg/L)	Consumption (kg)
	E.L. Smith	E.L. Smith
1	0.63	1,663
2	0.63	1,729
3	0.63	1,806
4	0.63	1,741
5	0.63	1,611
6	0.62	702
7	0.62	1,501
8	0.62	1,678
9	0.62	1,665
10	0.62	1,678
11	0.62	1,734
12	0.62	1,706
13	0.62	1,735
14	0.61	1,593
15	0.61	1,575
16	0.61	1,665
17	0.61	1,664
18	0.62	1,627
19	0.60	1,531
20	0.59	852
21	0.59	1,435
22	0.58	1,399
23	0.58	1,222
24	0.58	1,280
25	0.58	1,307
26	0.58	1,359
27	0.58	1,333
28	0.58	1,344
29	0.58	1,274
30	0.58	1,410
31	0.58	1,353
Monthly Total		46,172
Monthly Avg	0.61	1,489

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

March 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	3.92	5.99	954	3,088
2	3.90	7.72	953	4,134
3	3.85	8.19	1,011	4,580
4	3.98	6.68	977	3,604
5	3.89	4.93	987	2,475
6	4.05	6.55	971	1,455
7	3.95	5.74	978	2,717
8	3.98	5.52	969	2,917
9	3.33	7.10	830	3,725
10	3.25	7.56	725	3,998
11	3.30	6.69	762	3,657
12	5.08	7.68	1,288	4,125
13	5.92	7.15	1,463	3,932
14	4.73	6.61	1,187	3,374
15	3.72	4.99	926	2,516
16	4.98	5.13	1,229	2,734
17	6.06	9.82	1,473	5,230
18	10.0	14.8	2,465	7,665
19	18.6	19.2	4,689	9,645
20	19.1	19.1	4,784	5,452
21	17.1	20.9	4,178	9,984
22	12.7	22.5	3,821	10,580
23	14.9	17.8	4,722	7,312
24	15.1	15.3	4,645	6,594
25	15.3	14.6	4,616	6,399
26	11.6	13.9	3,527	6,342
27	9.10	12.7	2,564	5,681
28	8.27	10.2	2,086	4,610
29	7.41	8.53	1,833	3,653
30	7.04	8.00	1,996	3,791
31	6.15	8.00	1,654	3,638
Monthly Total			65,264	149,608
Monthly Avg	7.88	10.3	2,105	4,826

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
March 2024**

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.58	0.58	355	688
2	0.58	0.58	362	711
3	0.58	0.57	384	732
4	0.58	0.57	372	707
5	0.58	0.57	371	658
6	0.58	0.57	369	290
7	0.58	0.57	372	621
8	0.58	0.57	375	693
9	0.58	0.57	368	687
10	0.58	0.57	332	694
11	0.58	0.57	343	715
12	0.58	0.57	372	700
13	0.58	0.56	371	712
14	0.58	0.57	370	670
15	0.59	0.57	374	655
16	0.59	0.56	383	687
17	0.59	0.56	376	686
18	0.60	0.57	382	677
19	0.61	0.57	389	658
20	0.62	0.57	399	373
21	0.62	0.59	395	647
22	0.62	0.59	466	639
23	0.63	0.59	486	557
24	0.63	0.59	479	583
25	0.63	0.59	476	596
26	0.63	0.59	480	621
27	0.63	0.59	443	608
28	0.63	0.60	407	625
29	0.62	0.60	397	590
30	0.60	0.60	430	654
31	0.59	0.60	397	628
Monthly Total			12,276	19,760
Monthly Avg	0.60	0.58	396	637

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

March 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	15.0	10.4	416	1,258	11	46
2	20.5	10.8	625	1,479	12	52
3	17.5	11.0	523	1,344	11	44
4	19.2	10.4	1,044	1,199	21	44
5	15.4	15.2	712	1,907	18	52
6	16.2	22.9	747	2,815	18	47
7	12.1	10.4	519	1,180	16	43
8	15.5	9.77	623	1,338	15	52
9	14.5	13.8	729	2,007	19	55
10	15.3	13.3	626	1,790	16	51
11	13.5	11.5	624	1,572	18	52
12	12.9	10.4	521	1,133	15	42
13	16.6	10.4	730	1,292	17	52
14	12.1	9.61	519	1,037	16	41
15	15.6	9.71	730	1,022	18	40
16	13.4	8.76	519	1,015	15	43
17	11.1	9.76	416	1,210	14	47
18	11.3	9.10	418	1,232	14	51
19	15.0	3.14	626	457	16	55
20	10.9	13.8	417	1,930	15	53
21	6.54	9.57	523	1,235	31	49
22	14.8	11.0	1,249	1,162	32	40
23	12.0	9.05	624	1,303	20	55
24	10.4	6.62	519	783	19	45
25	14.4	9.56	826	1,258	22	50
26	11.1	11.6	522	1,327	18	43
27	13.0	11.4	626	1,421	18	47
28	10.8	12.0	506	1,273	18	40
29	11.8	14.9	625	1,944	20	50
30	12.4	18.6	628	2,312	19	47
31	9.81	17.6	416	2,038	16	44
Monthly Total			19,146	44,276	548	1,473
Monthly Avg	13.6	11.5	618	1,428	18	48

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

March 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)		335	0.0	135	44	0.0	514	60.14			488.35		
Solids (kg)	TSS	133,653	0	6,343			139,996						
	Aluminium	17,621	0	2,196			19,816						
# of Bypasses						0		Min	Max	Avg	Min	Max	Avg
pH								6.7	7.9	7.5	5.6	7.8	7.6
Total Chlorine (mg/L)								0.00	0.00	0.00	0.00	0.00	0.00
Sulfite (mg/L)								0.42	20.0	8.43	1.97	8.89	5.10

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

March 2024

		Clarifier Blowdown	Clarifier Washdown *	Backwash Water	Filter To Waste	Bypass	LLP Flush	HLP Cooling	Total	De-chlorinated Waste flow to		
Volume (ML)		657	0.0	380	303	50	0.6	27	1,418	1,473		
Solids (kg)	TSS	251,572	0	25,551					277,123			
	Aluminium	31,314	0	8,845					40,159			
# of Bypasses						2				Min	Max	Avg
pH										6.46	7.56	7.30
Total Chlorine (mg/L)										0.00	0.00	0.00
Sulphite (mg/L)										0.13	20.0	5.17

- 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

March 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

2024 - HIGH 5-DAY DEMAND

	PLANTS PROD (ML/d)	RES. GAIN / LOSS (%)	RES. GAIN / LOSS (ML)	TOTAL DEMAND (ML)
13-Mar-2024	392	3.1	19.8	372
14-Mar-2024	378	0.9	5.9	372
15-Mar-2024	374	0.4	2.5	371
16-Mar-2024	392	2.8	17.5	374
17-Mar-2024	389	1.7	10.8	378

AVERAGE: 374

Year to Date Data	2024	2023	% CHANGE
TOTAL PRODUCTION TO DATE (ML)	32,948	32,460	1.5
AVG. DAILY DEMAND TO DATE (ML)	362	361	0.3
PEAK DAILY DEMAND TO DATE (ML)	379	419	(9.5)
PEAK HOURLY DEMAND TO DATE (ML)	503	536	(6.2)
HIGH 5-DAY AVERAGE TO DATE (ML)	374	404	(7.4)

Peak daily demand of 379 ML/d occurred on January 21, 2024

Peak hourly demand of 503 ML/d occurred on March 16, 2024 at 11:00-12:00

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

March 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	1.60	1.85	1.62	1.90	2.06	1.95	1.58	1.75	1.65	1.95	2.01	1.98	1.85	1.91	1.88	1.43	1.54	1.50
2	1.63	1.84	1.65	1.93	2.00	1.96	1.61	1.69	1.66	1.94	2.00	1.96	1.76	1.92	1.86	1.41	1.52	1.49
3	1.62	1.69	1.66	1.83	1.97	1.94	1.57	1.71	1.68	1.92	1.97	1.94	1.83	1.93	1.84	1.40	1.50	1.47
4	1.58	1.70	1.66	1.89	1.99	1.92	1.62	1.77	1.69	1.88	1.95	1.92	1.76	1.87	1.83	1.39	1.48	1.46
5	1.64	1.91	1.68	1.79	1.96	1.90	1.64	1.72	1.68	1.90	1.98	1.92	--	--	--	1.39	1.57	1.49
6	1.60	1.91	1.65	1.78	1.97	1.91	1.59	1.71	1.68	1.88	2.00	1.91	--	--	--	1.50	1.58	1.55
7	1.64	1.80	1.65	1.80	1.98	1.90	1.61	1.68	1.66	1.91	1.97	1.94	--	--	--	1.48	1.57	1.54
8	1.64	1.85	1.68	1.92	2.02	1.95	1.60	1.71	1.66	1.64	2.14	1.97	--	--	--	1.47	1.57	1.53
9	1.56	1.91	1.68	1.85	2.01	1.93	1.55	1.72	1.67	1.95	2.05	1.97	--	--	--	1.46	1.56	1.52
10	1.64	1.89	1.66	1.85	2.01	1.95	1.66	1.71	1.69	1.92	2.00	1.95	--	--	--	1.44	1.54	1.49
11	1.60	1.79	1.65	1.84	1.99	1.94	1.59	1.73	1.69	1.90	2.00	1.94	--	--	--	1.42	1.52	1.47
12	1.76	1.86	1.83	1.85	1.97	1.95	1.65	1.69	1.68	1.90	1.98	1.93	1.83	1.90	1.85	1.42	1.54	1.48
13	1.66	1.89	1.69	1.91	2.00	1.94	1.64	1.72	1.69	1.90	1.95	1.93	1.71	1.88	1.83	1.46	1.54	1.50
14	1.66	1.88	1.68	1.85	2.00	1.93	1.63	1.73	1.68	1.90	1.96	1.92	1.79	1.90	1.84	1.42	1.54	1.50
15	1.65	1.88	1.66	1.79	2.00	1.92	1.59	1.75	1.68	1.88	1.99	1.93	1.84	2.05	1.85	1.40	1.52	1.47
16	--	--	--	1.89	2.00	1.91	1.63	1.73	1.69	1.91	1.96	1.93	1.83	1.86	1.84	1.41	1.50	1.46
17	1.62	1.80	1.64	1.88	2.01	1.90	1.66	1.74	1.71	1.91	1.99	1.93	1.73	1.88	1.83	1.39	1.48	1.44
18	1.61	1.84	1.63	1.86	1.95	1.89	1.65	1.79	1.71	1.89	1.95	1.91	1.75	1.84	1.82	1.36	1.46	1.42
19	1.61	1.87	1.62	1.82	1.91	1.86	1.60	1.73	1.69	1.84	1.91	1.87	1.65	1.83	1.79	1.35	1.53	1.45
20	1.55	1.59	1.58	1.81	1.87	1.84	1.62	1.72	1.68	1.81	1.86	1.82	1.67	1.78	1.75	1.42	1.52	1.48
21	1.57	1.84	1.58	1.69	1.86	1.82	1.58	1.80	1.64	1.79	1.83	1.80	1.62	1.78	1.73	1.42	1.52	1.46
22	1.57	1.57	1.57	1.78	1.85	1.81	1.60	1.75	1.63	1.76	1.80	1.77	1.62	1.81	1.72	1.37	1.50	1.42
23	1.61	1.85	1.64	1.66	1.84	1.78	1.57	1.68	1.63	1.75	1.83	1.76	1.63	1.79	1.72	1.35	1.45	1.40
24	1.58	1.60	1.60	1.71	1.85	1.79	1.61	1.65	1.63	1.76	1.84	1.77	1.67	1.75	1.71	1.31	1.47	1.42
25	1.54	1.83	1.61	1.68	1.85	1.78	1.57	1.70	1.64	1.76	1.86	1.79	1.55	1.77	1.71	1.32	1.49	1.44
26	1.51	1.85	1.62	1.77	1.88	1.79	1.54	1.68	1.64	1.78	1.85	1.79	1.58	1.77	1.69	1.40	1.64	1.53
27	1.62	1.78	1.64	1.71	1.88	1.80	1.62	1.67	1.65	1.75	1.83	1.78	1.63	1.75	1.71	1.56	1.64	1.60
28	1.59	1.79	1.60	1.67	1.89	1.79	1.54	1.72	1.64	1.75	1.87	1.79	1.70	1.74	1.73	1.52	1.60	1.57
29	1.60	1.83	1.62	1.66	1.86	1.78	1.47	1.70	1.63	1.77	1.88	1.80	1.71	1.74	1.73	1.49	1.57	1.53
30	1.55	1.81	1.64	1.70	1.87	1.78	1.60	1.71	1.63	1.78	1.86	1.80	1.62	1.78	1.73	1.45	1.54	1.50
31	1.62	1.85	1.65	1.65	1.90	1.78	1.59	1.67	1.64	1.80	1.91	1.82	1.68	1.77	1.73	1.43	1.50	1.47
Monthly Min/Max/Avg	1.51	1.91	1.64	1.65	2.06	1.87	1.47	1.80	1.66	1.64	2.14	1.88	1.55	2.05	1.78	1.31	1.64	1.48

NOTES: '--' Indication Analyzer Offline

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

March 2024

Reservoir	Rosslyn 1			Londonderry			N. Jasper Place			Rosslyn 2			Thornccliffe			Blackmud Creek		
Day	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1				1.45	1.90	1.76	1.64	1.92	1.67	1.83	1.85	1.83	1.73	1.99	1.75	1.56	1.67	1.62
2				1.68	1.92	1.81	1.62	1.91	1.69	1.78	2.11	1.86	1.61	1.97	1.76	1.56	1.67	1.62
3				1.68	1.91	1.81	1.68	1.87	1.70	1.85	2.13	1.88	1.74	1.93	1.76	1.55	1.66	1.61
4	1.80	1.82	1.81	1.70	1.90	1.82	1.65	1.85	1.67	1.90	2.16	1.91	1.73	1.98	1.75	1.55	1.64	1.60
5				1.70	1.94	1.83	1.64	1.91	1.68	1.79	2.21	1.91	1.73	1.94	1.75	1.55	1.64	1.60
6	1.76	1.80	1.78	1.58	1.93	1.79	1.63	1.88	1.65	1.90	2.17	1.91	1.58	2.00	1.72	1.55	1.65	1.59
7				1.69	1.85	1.78	1.62	1.90	1.67	1.87	1.90	1.88	1.70	1.98	1.74	1.54	1.63	1.59
8				1.62	1.82	1.77	1.63	1.94	1.69	1.75	1.93	1.87	1.68	1.99	1.72	1.54	1.65	1.59
9	--	--	--	1.69	1.93	1.78	1.59	1.93	1.66	1.85	1.86	1.85	1.67	2.00	1.69	1.56	1.69	1.62
10	--	--	--	1.68	1.92	1.79	1.63	1.92	1.67	1.83	2.13	1.87	1.71	1.99	1.74	1.60	1.70	1.65
11	--	--	--	1.65	1.86	1.76	1.62	1.90	1.68	1.80	1.90	1.85	1.73	1.98	1.76	1.60	1.71	1.65
12	--	--	--	1.66	1.81	1.76	--	--	--	1.82	2.10	1.86	1.74	1.97	1.76	1.58	1.69	1.63
13	--	--	--	1.63	1.85	1.76	1.64	1.70	1.67	1.74	2.17	1.87	1.74	1.96	1.76	1.54	1.65	1.59
14	--	--	--	1.65	1.90	1.80	1.64	1.70	1.68	1.76	2.09	1.89	1.73	1.99	1.76	1.52	1.62	1.57
15	--	--	--	1.67	1.91	1.79	1.64	1.69	1.68	1.86	1.90	1.89	1.63	1.98	1.75	1.50	1.60	1.55
16	--	--	--	1.67	1.86	1.80	1.64	1.70	1.68	1.78	2.20	1.90	1.71	1.94	1.74	1.49	1.59	1.54
17	--	--	--	1.50	1.86	1.80	1.64	1.69	1.67	1.83	2.11	1.91	1.71	1.93	1.73	1.49	1.58	1.54
18	1.81	1.82	1.81	1.71	1.91	1.81	1.63	1.68	1.65	1.90	2.09	1.91	1.70	1.91	1.72	1.46	1.57	1.52
19	--	--	--	1.67	1.91	1.80	1.56	1.66	1.64	1.89	1.91	1.90	1.67	1.81	1.69	1.42	1.55	1.49
20	1.72	1.82	1.75	1.64	1.85	1.75	1.59	1.65	1.61	1.75	1.96	1.87	1.62	1.83	1.66	1.40	1.50	1.44
21	--	--	--	1.58	1.78	1.73	1.56	1.62	1.60	1.81	1.85	1.84	1.61	1.82	1.64	1.39	1.49	1.45
22	--	--	--	1.59	1.87	1.70	1.51	1.66	1.59	1.79	1.99	1.82	--	--	--	1.41	1.51	1.46
23	1.68	1.73	1.69	1.63	1.87	1.72	1.53	1.59	1.57	1.82	2.09	1.86	1.59	1.80	1.70	1.44	1.52	1.48
24	1.68	1.69	1.69	1.65	1.77	1.71	--	--	--	1.79	1.84	1.82	--	--	--	1.40	1.50	1.46
25	1.66	1.68	1.67	1.61	1.76	1.71	1.52	1.55	1.53	1.71	1.92	1.83	1.52	1.81	1.55	1.38	1.47	1.43
26				1.54	1.77	1.70	1.47	1.54	1.51	1.77	2.06	1.81				1.38	1.46	1.42
27				1.49	1.82	1.69	1.49	1.53	1.51	1.76	1.82	1.80	1.48	1.84	1.54	1.38	1.47	1.42
28				1.63	1.75	1.70	1.47	1.53	1.52	1.75	1.80	1.76	1.52	1.87	1.54	1.39	1.48	1.44
29	--	--	--	1.56	1.80	1.70	1.38	1.52	1.48	1.61	1.81	1.73	1.43	1.86	1.53	1.40	1.49	1.45
30	--	--	--	1.56	1.83	1.69	1.45	1.58	1.51	1.70	2.02	1.73	1.57	1.86	1.59	1.41	1.50	1.46
31	--	--	--	1.64	1.77	1.71	1.49	1.53	1.51	1.62	2.14	1.73	1.50	1.87	1.59	1.40	1.49	1.45
Monthly Min/Max/Avg	1.66	1.82	1.74	1.45	1.94	1.76	1.38	1.94	1.62	1.61	2.21	1.85	1.43	2.00	1.69	1.38	1.71	1.53

NOTES: '--' Indication Analyzer Offline

1.2.31 Phosphoric Acid Consumption

March 2024

Day	Dosage (mg/L)		Consumption (kg)	
	Rossdale	E.L. Smith	Rossdale	E.L. Smith
1	0.90	0.90	479	923
2	0.90	0.90	483	960
3	0.90	0.90	561	1,066
4	0.90	0.90	494	953
5	0.90	0.90	496	945
6	0.90	0.90	570	351
7	0.90	0.90	463	904
8	0.90	0.90	549	944
9	0.90	0.90	448	880
10	0.90	0.90	469	964
11	0.90	0.90	410	969
12	0.90	0.90	528	1,011
13	0.90	0.90	534	955
14	0.90	0.90	486	965
15	0.90	0.90	513	908
16	0.90	0.90	555	974
17	0.90	0.90	504	970
18	0.90	0.90	496	948
19	0.90	0.90	471	910
20	0.90	0.90	522	485
21	0.90	0.90	513	820
22	0.90	0.90	547	852
23	0.90	0.90	634	787
24	0.90	0.90	638	783
25	0.90	0.90	596	801
26	0.90	0.90	612	814
27	0.90	0.90	590	803
28	0.90	0.90	517	790
29	0.90	0.90	468	788
30	0.90	0.90	575	882
31	0.90	0.90	564	783
Monthly Total			16,284	26,888
Monthly Avg	0.90	0.90	525	867

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

Water Quality 2023

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)	
Microorganism Log Removal at Water			
<i>Giardia</i>	≥5.5	≥6.0 (2)	>6.5
<i>Cryptosporidium</i>	≥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 2022 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**

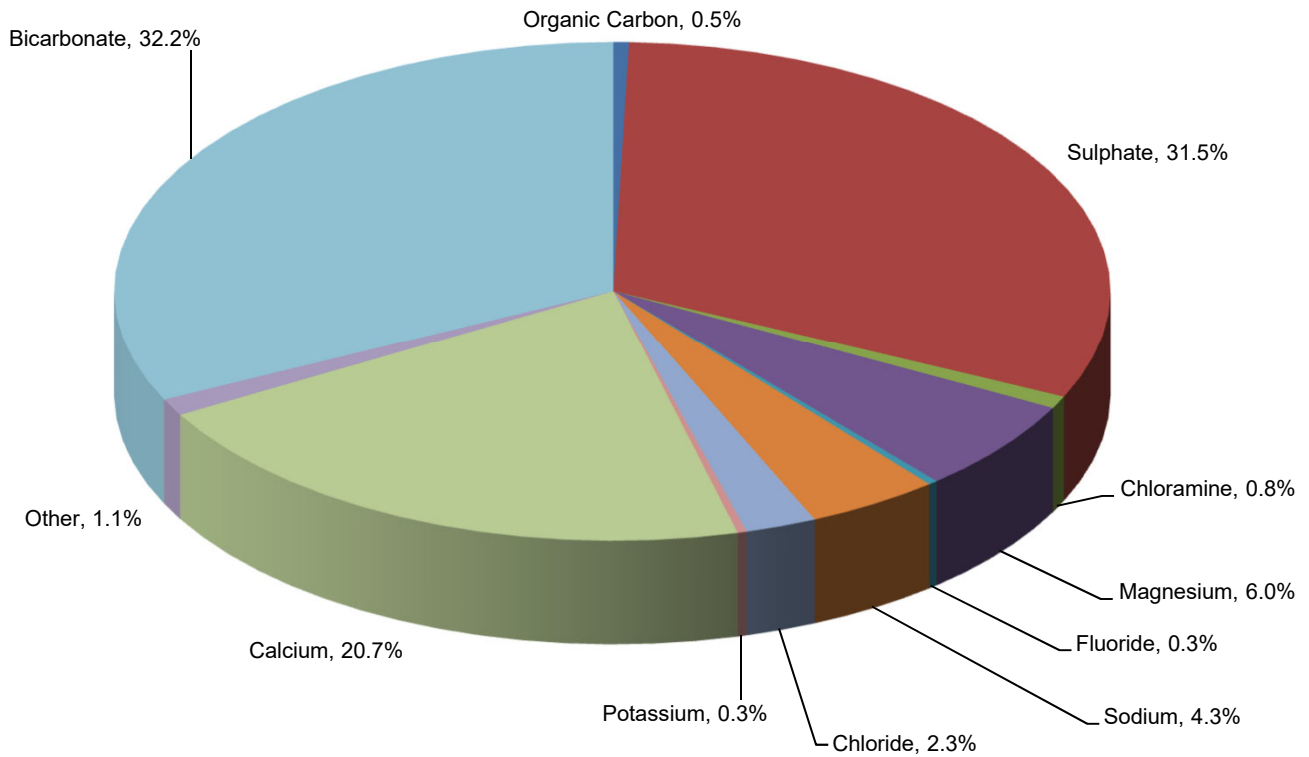
March 2024

Parameter	Unit	Monthly Count	Monthly Average	YTD Median	YTD Min	YTD Max	YTD Count
Alkalinity Total	mg CaCO ₃ /L	62	119	124	8	141	180
Aluminum	mg/L	2	0.030	0.032	0.026	0.089	6
Arsenic	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	6
Bromate Dissolved	mg/L	8	<0.005	<0.005	<0.005	<0.005	26
Bromodichloromethane	µg/L	62	0.8	0.9	<0.5	1.8	182
Cadmium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	6
Calcium Hardness	mg/L CaCO ₃	62	118	121	98	141	180
Chlorate Dissolved	mg/L	8	0.150	0.147	0.070	0.332	26
Chloride Dissolved	mg/L	8	8.21	6.08	4.78	12.10	26
Chlorite Dissolved	mg/L	8	<0.01	<0.01	<0.01	<0.01	26
Chromium	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	6
Colour	TCU	62	0.7	0.9	<0.5	1.9	180
Conductivity	µS/cm	8	423	410	376	453	26
Copper	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	6
Cryptosporidium	oocysts/100L	2	<0.1	<0.1	<0.1	<0.1	2
Fluoride	mg/L	62	0.68	0.70	0.62	0.79	180
Giardia	cysts/100L	2	<0.1	<0.1	<0.1	<0.1	2
Iron	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	6
Lead	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	6
Manganese	mg/L	2	<0.0020	<0.0020	<0.0020	<0.0020	6
Mercury	mg/L	2	<0.0002	<0.0002	<0.0002	<0.0002	6
Nitrate (as N) Dissolved	mg/L	8	0.106	0.090	0.080	0.134	26
Nitrite (as N) Dissolved	mg/L	8	0.01	<0.01	<0.01	0.02	26
pH	N/A	62	7.9	7.9	7.6	8.1	181
Potassium	mg/L	2	0.80	0.75	0.70	0.80	6
Sodium	mg/L	2	10.65	9.75	6.80	11.90	6
Sulphate Dissolved	mg/L	8	81.0	74.6	59.5	95.1	26
Total Chlorine	N/A	62	2.08	2.13	1.87	2.34	180
Total Dissolved Solids	mg/L	2	251	233	220	252	6
Total Hardness	mg/L CaCO ₃	62	178	184	153	218	180
Total Organic Carbon	mg/L C	8	1.1	1.3	0.9	1.7	26
Trihalomethanes	µg/L	62	8.1	10.5	5.1	20.1	182
Turbidity	NTU	62	0.05	<0.04	<0.04	0.09	180
Uranium	mg/L	2	<0.0005	<0.0005	<0.0005	0.0006	6
Zinc	mg/L	2	<0.0050	<0.0050	<0.0050	<0.0050	6
Bacteriological Data							
Coliforms, total	PA/100mL	62	Absent	Absent	Absent	Absent	180
E. coli	PA/100mL	62	Absent	Absent	Absent	Absent	180

2.1.3 THE COMPOSITION OF EDMONTON WATER TREATED WATER ENTERING THE DISTRIBUTION SYSTEM MONTHLY DATA

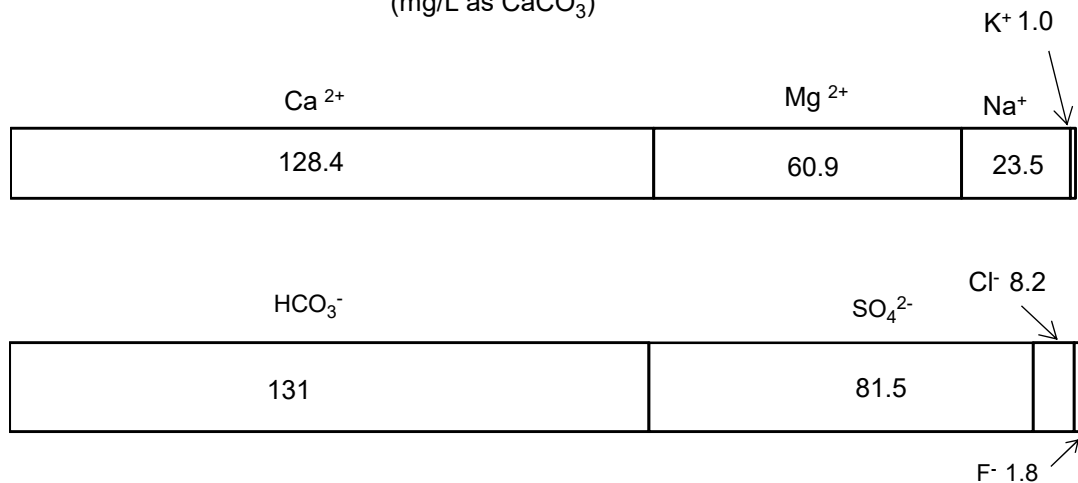
Edmonton Water for the Month of March 2024 is 99.98% pure

Other Chemicals that make up the remaining 0.02% (in % by weight)



*Other - Includes Trace Metals and Trace Organics

Bar Diagram of the Major Ions in Treated Water
(mg/L as CaCO₃)



2.1.4 SUMMARY OF LABORATORY ANALYSIS - 2024

DISTRIBUTION OF TESTING

Drinking Water Testing

		Jan	Feb	Mar	Total
Water Treatment Plant	# Tests	3,653	953	0	4,606
	# Samples	260	60	0	320
Field Reservoirs	# Tests	687	0	0	687
	# Samples	22	0	0	22
Routine Distribution System	# Tests	2,212	2,355	2,212	6,779
	# Samples	146	153	146	445
System Depressurization/Repair	# Tests	1,050	720	555	2,325
	# Samples	70	48	37	155
Customer Complaints	# Tests	810	378	702	1,890
	# Samples	15	7	13	35
Total	# Tests	8,412	4,406	3,469	16,287
	# Samples	513	268	196	977

Additional Testing

		Jan	Feb	Mar	Total
New Watermain Testing	# Tests	80	30	0	110
	# Samples	17	6	0	23
Water Treatment Plant Waste Discharge	# Tests	135	39	38	212
	# Samples	55	31	30	116
Quality Control	# Tests	1,584	1,401	1,528	4,513
	# Samples	956	821	968	2,745
Externally Contracted Analyses	# Tests	154	108	108	370
	# Samples	77	54	54	185
Regulatory Plant Water	# Tests	0	2,265	3,706	5,971
	# Samples	0	188	304	492
Total	# Tests	1,953	3,843	5,380	11,176
	# Samples	1,105	1,100	1,356	3,561

		Jan	Feb	Mar	Total
Total	# Tests	10,365	8,249	8,849	27,463
	# Samples	1,541	1,314	1,498	4,353

2.1.5 QUALITY ASSURANCE – March 2024

Drinking water quality must meet the requirements in the Alberta Environment and Protected Areas *Approval-to-Operate* (638-04-00) 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 September 2022 and supersedes all previous electronic and printed versions, including the Sixth Edition published 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, common 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 re-sampling. A violation of the current *Approval-to-Operate* (638-04-00) 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.

“*Variations*” 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.

2.1.5.6

Variations from EPCOR Water Services Water Quality Objectives in the Field Reservoirs and Distribution System

Variance Category ¹	This Month	YTD
Turbidity > 1 NTU	5	23
Chlorine < 1 mg/L or > 2.4 mg/L	0	2
Single Positive Coliform	0	1
THMs > 50 µg/L	0	0
Pipe Lube, Odour, UV positive	0	0
Aluminium ² > 0.20 (or 0.1) mg/L	0	2
Iron > 0.300 mg/L	0	0
Other	0	0
Total Variations + Violations	5 + 0 = 5	28 + 0 = 28

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.

2.1.5.7

Variations from EPCOR Water Services Water Quality Objectives (Lab Waste Streams)

No variations 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

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

2.2.2 Bacteriological Data: Distribution System

March 2024

	Coliforms, total (PA/100 mL)			E. coli (PA/100 mL)		cATP (pg/mL)			
	Count	# +ve	% +ve	# +ve	% +ve	Count	Mean	Min	Max
January									
FIELD DISTRIBUTION	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	209	1	0.5	0	0.0	118	0.33	0.11	1.26
February									
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	205	0	0.0	0	0.0	106	0.21	0.10	1.09
March									
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	198	0	0.0	0	0.0	106	0.26	0.10	0.96
Year to Date	775	1	0.1	0	0.0	330	0.27	0.10	1.26

2.2.2 Bacteriological Data: Distribution System

March 2024

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
March 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
Year to Date		35	0	0.0	0	0.0	35	0.28	0.11	1.50
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				
Year to Date		155	0	0.0	0	0.0				

2.2.3 Giardia and Cryptosporidium

March 2024

Treated Water entering the distribution system

	Cryptosporidium		Giardia	
	oocysts/100L		cysts/100L	
	E.L. Smith	Rossdale	E.L. Smith	Rossdale
23 - Jan		<0.1		<0.1
	<0.09		<0.09	

Raw Water

	Cryptosporidium		Giardia	
	oocysts/100L		cysts/100L	
	E.L. Smith	Rossdale	E.L. Smith	Rossdale
23 - Jan		<6.93		<6.93
	<1.28		<1.28	

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

March 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	1	<0.2	<0.2	<0.2	1	1.5	
Physical																		
Colour (TCU)	0.8	<0.5	1.1	31	0.7	<0.5	1.2	31	0.9	<0.5	1.9	90	0.9	<0.5	1.8	90	(15)	10
Conductivity (uS/cm)	425	415	439	4	422	414	431	4	407	376	439	13	411	376	453	13		<1
FPA-Intensity (N/A)	1.26	0.75	1.88	13	1.28	0.62	2.12	13	1.19	0.75	1.88	22	1.09	0.62	2.12	22		
pH (N/A)	7.9	7.8	8.0	31	7.9	7.7	8.0	31	7.9	7.7	8.1	91	7.9	7.6	8.1	90	(7.0 - 10.5)	7.3-8.3
Total Dissolved Solids (mg/L)	252	252	252	1	250	250	250	1	234	223	252	3	236	220	250	3	(500)	
Turbidity (NTU)	<0.04	<0.04	0.06	31	0.05	<0.04	0.09	31	<0.04	<0.04	0.07	90	0.05	<0.04	0.09	90		0.3
Primary Inorganics (mg/L)																		
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3	0.01	
Barium	0.062	0.062	0.062	1	0.060	0.060	0.060	1	0.058	0.055	0.062	3	0.057	0.055	0.060	3	2	
Boron	0.010	0.010	0.010	1	0.009	0.009	0.009	1	0.010	0.009	0.010	3	0.009	0.009	0.010	3	2	
Bromate Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	13	<0.005	<0.005	<0.005	13	0.01	
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3	0.007	
Chlorate Dissolved	0.26	0.21	0.33	4	0.08	0.07	0.11	4	0.23	0.18	0.33	13	0.09	0.07	0.11	13	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	13	<0.005	<0.005	<0.005	13	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3	0.05	
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3	2 (1)	
Fluoride	0.68	0.63	0.75	31	0.68	0.64	0.73	31	0.69	0.63	0.75	90	0.71	0.62	0.79	90	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	3	<0.0002	<0.0002	<0.0002	3	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	3	<0.002	<0.002	<0.002	3	0.12 (0.02)	
Mercury	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00020	<0.0002	1	<0.0002	<0.00005	<0.0002	4	<0.0002	<0.00005	<0.0002	4	0.001	
Nitrate (as N) Dissolved	0.11	0.09	0.13	4	0.10	0.09	0.13	4	0.09	0.08	0.13	13	0.09	0.08	0.13	13	10	
Nitrite (as N) Dissolved	0.01	0.01	0.02	4	<0.01	<0.01	0.01	4	0.01	0.01	0.02	13	0.01	<0.01	0.02	13	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	3	0.0003	0.0002	0.0003	3	0.05	
Total Chlorine	2.12	2.00	2.19	31	2.06	1.87	2.20	31	2.17	1.99	2.34	90	2.10	1.87	2.32	90	>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	3	<0.0005	<0.0005	0.0005	3	0.02	

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

March 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	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	100	
Atrazine				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	5	
Benzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	5	
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	0.04	
Bromoxynil				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91	2	
Chlorobenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	80 (30)	
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	90	
Cyanazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Diazinon				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1		
Dicamba				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	90	<0.5	<0.5	<0.5	90	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	91	<0.5	<0.5	<3.0	91	14	
Dichlorophenol (2,4)				0				0	<0.3	<0.3	<0.3	1	<0.3	<0.3	<0.3	1		
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Dimethoate				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	20	
Diuron				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1		
Ethylbenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	140 (1.6)	
Glyphosate				0				0	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1	280	
Haloacetic Acids, (HAA5)	17.4	17.4	17.4	1	13.7	13.7	13.7	1	18.1	16.5	20.5	3	15.0	13.7	17.7	3	80	40
Malathion				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1	190	
MCPA				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1	100	
Methylene Chloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	50	
Metolachlor				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1		
Metribuzin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1	80	
NDMA	0.00090	0.00094	0.00090	1	<0.0009	<0.0009	<0.0009	1	<0.00270	<0.00094	<0.00600	3	<0.0027	<0.0009	<0.0060	3	0.040	10
NTA (mg/L)				0				0	<0.4	<0.4	<0.4	1	<0.4	<0.4	<0.4	1	0.4	
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	0.6	
Perfluorooctanoic acid (PFOA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	0.0002	
Phorate				0				0	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1		
Picloram				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Simazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Terbufos				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1		
Tetrachloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	10	
Toluene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	60 (24)	

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

March 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	31	<1.0	<1.0	<1.0	31	<1.0	<1.0	<2.5	91	<1.0	<1.0	<2.5	91	90	
Trichloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	5	
Trifluralin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Trihalomethanes	9.5	6.6	13.2	31	7.2	5.1	9.9	31	11.9	6.6	20.1	91	9.3	5.1	16.9	91	100	50
Vinyl Chloride	<1	<1	<1	31	<1	<1	<1	31	<1	<1	<1	90	<1	<1	<1	90	2	
Secondary Inorganics (mg/L)																		
Alkalinity Total (mg CaCO3/L)	118	99	134	31	119	99	133	31	123	99	141	90	122	8	140	90		
Aluminum	0.036	0.036	0.036	1	0.027	0.027	0.027	1	0.050	0.026	0.089	3	0.047	0.026	0.089	3	2.9	0.1/0.2
Ammonia as NH3	0.12	0.09	0.15	14	0.11	0.09	0.13	14	0.13	0.09	0.16	23	0.12	0.09	0.15	23		
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3		
Bromide Dissolved	0.02	<0.01	0.03	4	0.02	<0.01	0.03	4	<0.01	<0.01	0.04	13	<0.01	<0.01	0.03	13		
Calcium	51.3	51.3	51.3	1	51.4	51.4	51.4	1	48.6	46.8	51.3	3	49.1	46.3	51.4	3		
Chloride Dissolved	8.8	5.3	11.4	4	7.9	5.8	12.1	4	6.7	4.8	11.4	13	6.8	5.6	12.1	13	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3		
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	3	<0.07	<0.07	<0.07	3		
Hardness, Ca (mg CaCO3/L)	118	101	132	31	117	101	133	31	121	101	141	90	119	98	138	90		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3	(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	3	<0.001	<0.001	<0.001	3		
Lithium	0.0040	0.0040	0.0040	1	0.0037	0.0037	0.0037	1	0.0034	0.0031	0.0040	3	0.0033	0.0030	0.0037	3		
Magnesium	15.0	15.0	15.0	1	14.8	14.8	14.8	1	14.3	13.6	15.0	3	14.5	13.6	15.1	3		
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0008	0.0008	1	0.0009	0.0008	0.0010	3	0.0009	0.0008	0.0009	3		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	<0.0005	<0.0005	<0.0005	3		
Phosphate, Ortho (as P)	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	5	<0.02	<0.02	<0.02	4		
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	3	<0.02	<0.02	<0.02	3		
Potassium	0.8	0.8	0.8	1	0.8	0.8	0.8	1	0.7	0.7	0.8	3	0.8	0.7	0.8	3		
Silicon	2.15	2.15	2.15	1	2.03	2.03	2.03	1	2.16	2.05	2.27	3	2.13	2.03	2.23	3		
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3		
Sodium	10.4	10.4	10.4	1	10.8	10.8	10.8	1	8.8	6.8	10.4	3	10.0	7.4	11.9	3	(200)	
Strontium	0.488	0.488	0.488	1	0.478	0.478	0.478	1	0.454	0.429	0.488	3	0.452	0.423	0.478	3	7.0	
Sulphate Dissolved	80.4	74.6	84.8	4	81.3	75.8	90.8	4	74.3	59.5	86.8	13	76.7	60.4	95.1	13	(500)	
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	<0.0005	<0.0005	<0.0005	3		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	<0.0005	<0.0005	<0.0005	3		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	<0.0005	<0.0005	<0.0005	3		
Total Hardness (mg/L CaCO3)	179	153	203	31	178	154	198	31	184	153	218	90	182	154	211	90		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	<0.0005	<0.0005	<0.0005	3		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3	(5.0)	
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	3	<0.001	<0.001	<0.001	3		

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

March 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	1	<0.1	<0.1	<0.1	1		
Aldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1		
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Bromochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	3	<1	<1	<1	3		
Bromodichloromethane	0.9	0.6	1.2	31	0.7	<0.5	0.9	31	1.0	<0.5	1.8	91	0.8	<0.5	1.2	91		16
Bromoform	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91		
Carbaryl				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1		
Carbofuran				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1		
Chloroform	8.3	5.70	12.3	31	6.3	4.30	9.0	31	10.6	5.70	20.1	91	8.2	4.30	16.4	91		
Dibromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	3	<1	<1	<1	3		
Dibromochloromethane	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichloroacetic acid	9.43	9.43	9.43	1	7.50	7.50	7.50	1	9.40	8.58	10.20	3	7.93	7.17	9.12	3		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dieldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	(15)	
MIBK	<1	<1	<1	31	<1	<1	<1	31	<1	<1	<1	91	<1	<1	<1	91		
Monobromoacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	3	<1	<1	<1	3		
Monochloroacetic acid	<1	<1	<1	1	<1	<1	<1	1	<1	<1	<1	3	<1	<1	<1	3		
Parathion				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Perfluorobutanoic acid (PFBA)				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Perfluoroheptanoic acid (PFHpA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1		
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1		
Perfluorohexanoic acid (PFHxA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1		
Perfluorononanoic acid (PFNA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1		
Perfluoropentanoic acid (PFPeA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1		
Styrene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91		
Total Organic Carbon	1.3	1.2	1.3	4	1.1	0.9	1.2	4	1.4	1.2	1.7	13	1.3	0.9	1.7	13		
Total Volatile Organics (NonTHM)	<1.0	<1.0	1.2	31	<1.0	<1.0	1.1	31	<1.2	<1.0	2.3	91	<1.2	<1.0	2.3	91		
Total Volatile Organics (Unknown)	1.0	<0.5	1.9	11	1.5	<0.5	3.6	11	1.2	<0.5	7.7	36	1.3	<0.5	3.6	39		
Triallate				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1		
Trichloroacetic acid	7.98	7.98	7.98	1	6.22	6.22	6.22	1	8.74	7.95	10.30	3	7.12	6.22	8.61	3		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Xylene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		

Secondary Organics (ug/L)																		
Xylene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		

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 638-04-00. 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 638-04-00
- *** 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

March 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)	<0.05	<0.04	0.13	31	0.05	<0.04	0.07	31	<0.04	<0.04	0.13	90	0.05	<0.04	0.09	90		0.3
UV 254 %T ****	<95.3	<93.2	<96.9	31	<96.0	<93.9	<98.9	31	<94.5	<91.0	<96.9	90	<94.9	<91.1	<98.9	90		
Primary Inorganics (mg/L)																		
Bromate Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	13	<0.005	<0.005	<0.005	13	0.01	
Chlorate Dissolved	0.26	0.21	0.34	4	0.08	0.06	0.12	4	0.22	0.18	0.34	13	0.09	0.06	0.12	13	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	4	<0.005	<0.005	<0.005	13	<0.005	<0.005	<0.005	13	1	
Nitrate (as N) Dissolved	0.11	0.09	0.14	4	0.11	0.09	0.13	4	0.09	0.08	0.14	13	0.09	0.08	0.13	13	10	
Nitrite (as N) Dissolved	0.01	0.01	0.02	4	<0.01	<0.01	0.01	4	0.01	0.01	0.02	13	0.01	<0.01	0.02	13	1	
Primary Organics (ug/L)																		
Benzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91	2	
Chlorobenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	90	<0.5	<0.5	<0.5	90	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	91	<0.5	<0.5	<3.0	91	14	
Ethylbenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	10	
Toluene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	60 (24)	
Total Xylenes	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1.0	31	<1.0	<1.0	<2.5	91	<1.0	<1.0	<2.5	91	90	
Trichloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91	5	
Trihalomethanes	7.8	5.3	10.4	31	5.8	3.7	8.8	31	9.6	5.3	17.9	91	7.5	3.7	15.2	91	100	50
Vinyl Chloride	<1	<1	<1	31	<1	<1	<1	31	<1	<1	<1	90	<1	<1	<1	90	2	
Secondary Inorganics (mg/L)																		
Ammonia as NH3	0.12	0.10	0.16	14	0.11	0.07	0.14	14	0.13	0.10	0.16	23	0.12	0.07	0.16	23		
Bromide Dissolved	0.02	<0.01	0.04	4	0.02	<0.01	0.03	4	<0.01	<0.01	0.04	13	<0.01	<0.01	0.03	13		
Chloride Dissolved	11.4	5.2	19.9	4	7.9	6.0	12.9	4	7.6	4.7	19.9	13	6.8	5.5	12.9	13	(250)	
Sulphate Dissolved	82.1	75.2	95.8	4	81.8	76.5	92.1	4	74.9	59.2	95.8	13	76.8	59.8	95.3	13	(500)	

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

March 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	0.8	<0.5	1.4	31	<0.6	<0.5	0.8	31	0.8	<0.5	1.4	91	0.7	<0.5	1.0	91	(15)	16
Bromoform	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91		
Chloroform	6.8	4.70	9.5	31	5.0	3.00	7.9	31	8.5	4.70	17.9	91	6.6	3.00	14.6	91		
Dibromochloromethane	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
MIBK	<1	<1	<1	31	<1	<1	<1	31	<1	<1	<1	91	<1	<1	<1	91		
Styrene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91		
Total Volatile Organics (NonTHM)	<1.0	<1.0	1.4	31	<1.0	<1.0	1.2	31	<1.2	<1.0	2.3	91	<1.2	<1.0	2.3	91		
Total Volatile Organics (Unknown)	1.2	<0.5	1.9	11	1.0	0.5	2.1	11	1.0	<0.5	1.9	35	1.0	<0.5	2.1	38		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Xylene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		
Xylene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91		

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 638-04-00. 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 to the AEP Operating Approval 638-04-00

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

**** UV 254 %T for Rosssdale 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)

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Microbiological										
Microcystin				0	<0.2	<0.2	<0.2	1	1.5	
Physical										
Colour (TCU)				0	0.7	0.7	0.7	1	(15)	10
pH (N/A)	7.9	7.8	7.9	2	7.8	7.8	7.9	5	(7.0 - 10.5)	7.3 - 8.3
Total Dissolved Solids (mg/L)				0	233	233	233	1	(500)	
Turbidity (NTU)	0.20	0.05	2.58	146	0.22	<0.04	2.58	445		1.0
UV 254 %T				0	<92.7	<92.7	<92.7	1		
Primary Inorganics (mg/L) **										
Antimony				0	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	1	0.01	
Barium				0	0.057	0.057	0.057	1	2	
Boron				0	0.009	0.009	0.009	1	2	
Bromate Dissolved	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	5	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved	0.13	0.08	0.18	2	0.15	0.08	0.20	5	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	2	<0.005	<0.005	<0.005	5	1	
Chromium				0	<0.0002	<0.0002	<0.0002	1	0.05	
Copper				0	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride				0	0.74	0.74	0.74	1	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese				0	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury				0	<0.00010	<0.00005	<0.00020	2	0.001	
Nitrate (as N) Dissolved	0.09	0.09	0.09	2	0.09	0.08	0.09	5	10	
Nitrite (as N) Dissolved	0.02	<0.01	0.02	2	0.01	<0.01	0.02	5	1	
Selenium				0	0.0003	0.0003	0.0003	1	0.05	
Strontium				0	0.445	0.445	0.445	1	7.0	
Total Chlorine	1.97	1.09	2.23	146	1.99	1.09	2.27	445	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	1	0.02	

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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Primary Organics (ug/L) **										
2,4-D				0	<0.05	<0.05	<0.05	1	100	
Atrazine				0	<0.05	<0.05	<0.05	1	5	
Atrazine+N-Dealkylated Metabolites				0	<0.1	<0.1	<0.1	1	0.005	
Azinphos-methyl				0	<0.1	<0.1	<0.1	1	0.02	
Benzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	5	
Benzo(a)pyrene				0	<0.005	<0.005	<0.005	1	0.04	
Bromoxynil				0	<0.05	<0.05	<0.05	1	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	2	
Chlorobenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	80 (30)	
Chlorpyrifos				0	<0.1	<0.1	<0.1	1	90	
Cyanazine				0	<0.1	<0.1	<0.1	1		
Diazinon				0	<0.025	<0.025	<0.025	1		
Dicamba				0	<0.1	<0.1	<0.1	1	110	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	14	
Dichlorophenol (2,4)				0	<0.3	<0.3	<0.3	1		
Diclofop-methyl				0	<0.1	<0.1	<0.1	1		
Dimethoate				0	<0.05	<0.05	<0.05	1	20	
Diquat				0	<1	<1	<1	1	0.05	
Diuron				0	<0.05	<0.05	<0.05	1		
Ethylbenzene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	140 (1.6)	
Glyphosate				0	<0.2	<0.2	<0.2	1	280	
Malathion				0	<0.025	<0.025	<0.025	1	190	
MCPA				0	<0.05	<0.05	<0.05	1	100	
Methylene Chloride	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	50	
Metolachlor				0	<0.025	<0.025	<0.025	1		
Metribuzin				0	<0.1	<0.1	<0.1	1	80	
NDMA (µg/L)	0.00110	0.00102	0.00120	3	<0.00340	<0.00102	0.00690	9	0.040	10
Nitritotriacetic acid				0	<0.4	<0.4	<0.4	1	0.4	
Paraquat				0	<1	<1	<1	1	0.07	
Pentachlorophenol				0	<0.5	<0.5	<0.5	1	60 (30)	
Perfluorooctane sulfonic acid (PFOS)				0	<0.02	<0.02	<0.02	1	0.0006	
Perfluorooctanoic acid (PFOA)				0	<0.02	<0.02	<0.02	1	0.0002	
Phorate				0	<0.25	<0.25	<0.25	1		
Picloram				0	<0.1	<0.1	<0.1	1		
Simazine				0	<0.1	<0.1	<0.1	1		
Terbufos				0	<0.5	<0.5	<0.5	1		

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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Primary Organics (ug/L) **										
Tetrachloroethylene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	10	
Tetrachlorophenol (2,3,4,6)				0	<0.5	<0.5	<0.5	1	100 (1)	
Toluene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	60 (24)	
Total Xylenes	<1	<1	<1	6	<1	<1	<1	18	90	
Trichloroethylene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	5	
Trichlorophenol (2,4,6)				0	<0.5	<0.5	<0.5	1	5 (2)	
Trifluralin				0	<0.1	<0.1	<0.1	1		
Vinyl Chloride	<1	<1	<1	6	<1	<1	<1	18	2	

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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total				0	121	121	121	1		
Alkalinity, PHP (mg CaCO3/L)				0	<3	<3	<3	1		
Aluminum				0	0.018	0.018	0.018	1	2.9	0.1/0.2
Ammonia as N	0.14	0.13	0.15	2	0.15	0.10	0.24	7		
Beryllium				0	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved	0.04	0.04	0.04	2	0.02	<0.01	0.04	5		
Calcium				0	47.4	47.4	47.4	1		
Chloride Dissolved	5.7	5.4	6.1	2	5.6	4.9	6.1	5	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	1		
Free Chlorine				0	<0.07	<0.07	<0.07	1		
Iron				0	0.013	0.013	0.013	1	(0.3)	0.3
Lanthanum				0	<0.001	<0.001	<0.001	1		
Lithium				0	0.0034	0.0034	0.0034	1		
Magnesium				0	15.3	15.3	15.3	1		
Molybdenum				0	0.001	0.001	0.001	1		
Nickel				0	<0.0005	<0.0005	<0.0005	1		
Phosphorus				0	0.91	0.91	0.91	1		
Potassium				0	0.8	0.8	0.8	1		
Silicon				0	2.4	2.4	2.4	1		
Silver				0	<0.0002	<0.0002	<0.0002	1		
Sodium				0	11.2	11.2	11.2	1	(200)	
Sulphate Dissolved	74.9	74.6	75.1	2	68.6	59.0	75.1	5	(500)	
Thallium				0	<0.0005	<0.0005	<0.0005	1		
Tin				0	<0.0005	<0.0005	<0.0005	1		
Titanium				0	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)				0	183	183	183	1		
Total Kjeldahl Nitrogen				0	0.4	0.4	0.4	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	1		
Zinc				0	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium				0	<0.001	<0.001	<0.001	1		

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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
2,4,5-T				0	<0.05	<0.05	<0.05	1		
6:2 Fluorotelomer sulfonic acid(6:2 FTS)				0	<0.02	<0.02	<0.02	1		
8:2 Fluorotelomer sulfonic acid(8:2 FTS)				0	<0.02	<0.02	<0.02	1		
a-chlordane				0	<0.008	<0.008	<0.008	1		
Alachlor				0	<0.05	<0.05	<0.05	1		
Aldicarb				0	<0.1	<0.1	<0.1	1		
Aldrin				0	<0.008	<0.008	<0.008	1		
Ametryn				0	<0.025	<0.025	<0.025	1		
Atrazine Desethyl				0	<0.025	<0.025	<0.025	1		
Bendiocarb				0	<0.025	<0.025	<0.025	1		
Bromochloroacetic acid	<1	<1	<1	6	<1	<1	<1	18		
Bromodichloromethane	0.9	0.6	1.1	6	1.1	0.6	1.5	18		16
Bromoform	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Carbaryl				0	<0.05	<0.05	<0.05	1		
Carbofuran				0	<0.025	<0.025	<0.025	1		
Chloroform	12.9	11.4	16.0	6	13.7	10.7	20.0	18		
Dibromoacetic acid	<1	<1	<1	6	<1	<1	<1	18		
Dibromochloromethane	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Dichloroacetic acid	8.59	7.45	10.40	6	8.85	7.05	10.80	18		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Dieldrin				0	<0.008	<0.008	<0.008	1		
Dinoseb				0	<0.05	<0.05	<0.05	1		
gamma-hexachlorocyclohexane				0	<0.008	<0.008	<0.008	1		
g-chlordane				0	<0.008	<0.008	<0.008	1		
Heptachlor				0	<0.008	<0.008	<0.008	1		
Heptachlor Epoxide				0	<0.008	<0.008	<0.008	1		
Methoxychlor				0	<0.008	<0.008	<0.008	1		
Methyl Parathion				0	<0.1	<0.1	<0.1	1		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18	(15)	
MIBK	<1	<1	<1	6	<1	<1	<1	18		
Monobromoacetic acid	<1	<1	<1	6	<1	<1	<1	18		
Monochloroacetic acid	<1	<1	<1	6	<1	<1	<1	18		
op-DDT				0	<0.004	<0.004	<0.004	1		
Oxychlordane				0	<0.008	<0.008	<0.008	1		
Parathion				0	<0.1	<0.1	<0.1	1		
Perfluorobutane sulfonic acid (PFBS)				0	<0.02	<0.02	<0.02	1		

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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Perfluorobutanoic acid (PFBA)				0	<0.1	<0.1	<0.1	1		
Perfluoroheptanoic acid (PFHpA)				0	<0.02	<0.02	<0.02	1		
Perfluorohexane sulfonic acid (PFHxS)				0	<0.02	<0.02	<0.02	1		
Perfluorohexanoic acid (PFHxA)				0	<0.02	<0.02	<0.02	1		
Perfluorononanoic acid (PFNA)				0	<0.02	<0.02	<0.02	1		
Perfluoropentanoic acid (PFPeA)				0	<0.02	<0.02	<0.02	1		
pp-DDD				0	<0.004	<0.004	<0.004	1		
pp-DDE				0	<0.004	<0.004	<0.004	1		
pp-DDT				0	<0.004	<0.004	<0.004	1		
Prometon				0	<0.025	<0.025	<0.025	1		
Prometryne				0	<0.025	<0.025	<0.025	1		
Propazine				0	<0.025	<0.025	<0.025	1		
Styrene	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Temephos				0	<0.25	<0.25	<0.25	1		
Terbutryn				0	<0.025	<0.025	<0.025	1		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Total Organic Carbon				0	1.3	1.3	1.3	1		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	6	1.3	<1.0	2.2	18		
Total Volatile Organics (Unknown)	0.8	<0.5	1.1	6	0.9	<0.5	1.6	9		
Triallate				0	<0.1	<0.1	<0.1	1		
Trichloroacetic acid	7.07	6.24	8.61	6	8.01	6.24	9.74	18		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Xylene (1,2)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		
Xylene (1,4)	<0.5	<0.5	<0.5	6	<0.5	<0.5	<0.5	18		

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 638-04-00. 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 to the AEP Operating Approval 638-04-00

*** 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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	0.7	<0.5	1.1	13	0.8	<0.5	1.8	35	(15)	10
pH (N/A)	7.8	7.7	7.9	13	7.8	7.6	8.1	35	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.09	0.05	0.30	13	0.27	0.05	2.34	35		1.0
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	13	<0.0003	<0.0002	<0.0005	35	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	35	0.01	
Barium	0.059	0.051	0.066	13	0.058	0.051	0.081	35	2	
Boron	0.016	0.009	0.036	13	0.012	0.007	0.036	35	2	
Cadmium	<Inoff	<0.00002	<Inoff	13	<0.00010	<0.00002	<0.00020	35	0.007	
Chromium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	35	0.05	
Copper	0.004	<0.002	0.010	13	0.006	<0.002	0.048	35	2 (1)	
Lead	0.0002	<0.0002	0.0004	13	0.0002	<0.0002	0.0005	35	0.005	
Manganese	<0.002	<0.002	<0.002	13	0.002	<0.002	0.006	35	0.12 (0.02)	
Mercury	<0.00020	<0.00020	<0.00020	11	<0.00020	<0.00020	<0.00020	29	0.001	
Selenium	0.0003	<0.0002	0.0003	13	0.0003	<0.0002	0.0003	35	0.05	
Strontium	0.474	0.452	0.491	13	0.459	0.425	0.491	35	7.0	
Total Chlorine	1.98	1.52	2.13	13	1.98	1.52	2.27	35	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	13	0.0005	<0.0005	0.0006	35	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	2	
Chlorobenzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	80 (30)	
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	14	
Ethylbenzene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	10	
Toluene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	60 (24)	
Total Xylenes	<1	<1	<1	13	<1	<1	<1	35	90	
Trichloroethylene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35	5	
Vinyl Chloride	<1	<1	<1	13	<1	<1	<1	35	2	

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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Aluminum	0.021	0.014	0.045	13	0.059	0.014	0.759	35	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	35		
Calcium	50.6	45.4	54.3	13	49.9	45.4	54.3	35		
Cobalt	<0.0002	<0.0002	<0.0002	13	<0.0002	<0.0002	<0.0002	35		
Iron	0.012	<0.005	0.060	13	0.034	<0.005	0.273	35	(0.3)	0.3
Lanthanum	<0.001	<0.001	<0.001	13	<0.001	<0.001	<0.001	35		
Lithium	0.0038	0.0033	0.0044	13	0.0036	0.0029	0.0044	35		
Magnesium	14.3	12.7	15.4	13	14.7	12.7	16.4	35		
Molybdenum	0.0009	0.0008	0.0010	13	0.0009	0.0006	0.0011	35		
Nickel	0.0005	<0.0005	0.0006	13	0.0005	<0.0005	0.0008	35		
Phosphorus	1.02	0.97	1.06	13	0.98	0.86	1.43	35		
Potassium	1.2	0.7	2.8	13	0.9	0.7	2.8	35		
Silicon	2.18	1.94	2.39	13	2.22	1.93	2.69	35		
Silver	<Inoff	<0.00002	<Inoff	13	<0.00010	<0.00002	<0.00020	35		
Sodium	13.4	10.7	18.3	13	11.0	6.6	18.3	35	(200)	
Thallium	<0.0002	<0.0002	<0.0002	13	<0.0004	<0.0002	<0.0005	35		
Tin	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	35		
Titanium	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	35		
Total Hardness (mg/L CaCO3)	185	165	198	13	185	165	201	35		
Vanadium	<0.0005	<0.0005	<0.0005	13	<0.0005	<0.0005	<0.0005	35		
Zinc	0.006	<0.005	0.012	13	0.006	<0.005	0.023	35	(5.0)	
Zirconium	<0.001	<0.001	<0.001	13	<0.001	<0.001	<0.001	35		

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

March 2024

									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	0.9	<0.5	1.3	13	1.1	<0.5	1.6	35	(15)	16
Bromoform	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Chloroform	9.6	5.6	14.6	13	12.7	5.6	20.1	35		
Dibromochloromethane	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
MIBK	<1	<1	<1	13	<1	<1	<1	35		
Styrene	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Total Volatile Organics (NonTHM)	1.0	<1.0	1.1	13	1.3	<1.0	2.6	35		
Total Volatile Organics (Unknown)	1.4	0.7	2.4	6	1.6	<0.5	7.7	12		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Xylene (1,2)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		
Xylene (1,4)	<0.5	<0.5	<0.5	13	<0.5	<0.5	<0.5	35		

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 638-04-00. 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 to the AEP Operating Approval 638-04-00

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

2.2.7 Castledowns Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)				0	1.2	1.2	1.2	1	(15)	10
Conductivity (uS/cm)				0	391	391	391	1		
Odour				0	Inoff	Inoff	Inoff	1		
pH (N/A)				0	7.8	7.8	7.8	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.09	0.11	4	0.17	0.08	0.46	11		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	1	0.01	
Barium				0	0.056	0.056	0.056	1	2	
Boron				0	0.009	0.009	0.009	1	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	1	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved				0	0.143	0.143	0.143	1	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	1	1	
Chromium				0	<0.0002	<0.0002	<0.0002	1	0.05	
Copper				0	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride				0	0.75	0.75	0.75	1	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese				0	0.003	0.003	0.003	1	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved				0	0.090	0.090	0.090	1	10	
Nitrite (as N) Dissolved				0	<0.010	<0.010	<0.010	1	1	
Selenium				0	0.0003	0.0003	0.0003	1	0.05	
Strontium				0	0.437	0.437	0.437	1	7.0	
Total Chlorine	1.73	1.66	1.92	4	1.69	1.27	2.04	11	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	1	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	1	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	1	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	1	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	1		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	1	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	1	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	1	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	1	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	1	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	1	10	
Toluene				0	<0.50	<0.50	<0.50	1	60 (24)	
Total Xylenes				0	<1	<1	<1	1	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	1	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	1	2	

2.2.7 Castledowns Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total				0	122	122	122	1		
Aluminum				0	0.031	0.031	0.031	1	2.9	0.1/0.2
Beryllium				0	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved				0	<0.010	<0.010	<0.010	1		
Calcium				0	47.7	47.7	47.7	1		
Calcium Hardness				0	121	121	121	1		
Chloride Dissolved				0	6.2	6.2	6.2	1	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	1		
Iron				0	0.078	0.078	0.078	1	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	1		
Lithium				0	0.0030	0.0030	0.0030	1		
Magnesium				0	13.7	13.7	13.7	1		
Molybdenum				0	0.0009	0.0009	0.0009	1		
Nickel				0	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.88	0.88	0.88	1	0.88	0.86	0.92	4		
Phosphorus				0	0.87	0.87	0.87	1		
Potassium				0	0.80	0.80	0.80	1		
Silicon				0	2.21	2.21	2.21	1		
Silver				0	<0.0002	<0.0002	<0.0002	1		
Sodium				0	9.9	9.9	9.9	1	(200)	
Sulphate Dissolved				0	70	70	70	1	(500)	
Thallium				0	<0.0005	<0.0005	<0.0005	1		
Tin				0	<0.0005	<0.0005	<0.0005	1		
Titanium				0	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	1		
Zinc				0	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	1		

2.2.7 Castledowns Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane				0	1.2	1.2	1.2	1	(15)	16
Bromoform				0	<0.5	<0.5	<0.5	1		
Chloroform				0	18.4	18.4	18.4	1		
Dibromochloromethane				0	<0.50	<0.50	<0.50	1		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	1		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	1		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	1		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	1		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	1		
MIBK				0	<1.0	<1.0	<1.0	1		
Styrene				0	<0.50	<0.50	<0.50	1		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	1		
Total Organic Carbon				0	1.3	1.3	1.3	1		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	1		
Total Volatile Organics (Unknown)				0	0.7	0.7	0.7	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	1		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	1		
Xylene (1,2)				0	<0.5	<0.5	<0.5	1		
Xylene (1,4)				0	<0.5	<0.5	<0.5	1		

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 638-04-00. 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 638-04-00

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

2.2.8 Clareview Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	0.7	0.7	0.7	1	0.7	0.7	0.7	2	(15)	10
Conductivity (uS/cm)	421	421	421	1	395	368	421	2		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.8	1	7.9	7.8	7.9	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.11	0.16	4	0.13	0.10	0.23	13		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	2	0.01	
Barium	0.061	0.061	0.061	1	0.059	0.056	0.061	2	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.01	
Cadmium	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2	0.007	
Chlorate Dissolved	0.172	0.172	0.172	1	0.182	0.172	0.191	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.66	0.66	0.66	1	0.69	0.66	0.71	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.090	0.090	0.090	1	0.090	0.090	0.090	2	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	0.010	0.010	0.010	2	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	2	0.05	
Strontium	0.481	0.481	0.481	1	0.466	0.451	0.481	2	7.0	
Total Chlorine	1.97	1.95	2.00	4	2.00	1.94	2.09	13	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	2	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2	2	

2.2.8 Clareview Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total	129	129	129	1	124	119	129	2		
Aluminum	0.023	0.023	0.023	1	0.051	0.023	0.078	2	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	2		
Calcium	51.3	51.3	51.3	1	49.8	48.2	51.3	2		
Calcium Hardness	130	130	130	1	124	118	130	2		
Chloride Dissolved	5.8	5.8	5.8	1	5.7	5.5	5.8	2	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Iron	0.012	0.012	0.012	1	0.012	0.012	0.012	2	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		
Lithium	0.0038	0.0038	0.0038	1	0.0035	0.0032	0.0038	2		
Magnesium	14.9	14.9	14.9	1	14.7	14.4	14.9	2		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	2		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Ortho_P	0.86	0.86	0.86	1	0.88	0.86	0.92	5		
Phosphorus	0.96	0.96	0.96	1	0.94	0.91	0.96	2		
Potassium	0.80	0.80	0.80	1	0.75	0.70	0.80	2		
Silicon	2.13	2.13	2.13	1	2.03	1.93	2.13	2		
Silver	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2		
Sodium	10.5	10.5	10.5	1	8.9	7.2	10.5	2	(200)	
Sulphate Dissolved	76	76	76	1	68	60	76	2	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	198	198	198	1	188	177	198	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		

2.2.8 Clareview Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	1.3	1.3	1.3	1	1.1	0.9	1.3	2	(15)	16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Chloroform	13.9	13.9	13.9	1	16.5	13.9	19.1	2		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Total Organic Carbon	1.3	1.3	1.3	1	1.3	1.3	1.3	2		
Total Volatile Organics (NonTHM)	1.3	1.3	1.3	1	1.6	1.3	1.8	2		
Total Volatile Organics (Unknown)	1.0	1.0	1.0	1	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 638-04-00

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

2.2.9 Discovery Park Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	0.8	0.8	0.8	1	0.9	0.8	1.0	2	(15)	10
Conductivity (uS/cm)	408	408	408	1	388	367	408	2		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	2		
pH (N/A)	7.9	7.9	7.9	1	8.0	7.9	8.0	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.07	0.06	0.07	4	0.09	0.06	0.15	13		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0003	2	0.01	
Barium	0.057	0.057	0.057	1	0.056	0.054	0.057	2	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.01	
Cadmium	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2	0.007	
Chlorate Dissolved	0.090	0.090	0.090	1	0.099	0.090	0.108	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.77	0.77	0.77	1	0.73	0.68	0.77	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.100	0.100	0.100	1	0.095	0.090	0.100	2	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	<0.010	<0.010	0.010	2	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	2	0.05	
Strontium	0.474	0.474	0.474	1	0.459	0.443	0.474	2	7.0	
Total Chlorine	1.57	1.53	1.62	4	1.53	1.40	1.68	13	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	2	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2	2	

2.2.9 Discovery Park Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total	126	126	126	1	121	116	126	2		
Aluminum	0.021	0.021	0.021	1	0.057	0.021	0.093	2	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	2		
Calcium	46.2	46.2	46.2	1	45.9	45.6	46.2	2		
Calcium Hardness	124	124	124	1	119	113	124	2		
Chloride Dissolved	6.0	6.0	6.0	1	6.1	6.0	6.1	2	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		
Lithium	0.0034	0.0034	0.0034	1	0.0032	0.0030	0.0034	2		
Magnesium	14.2	14.2	14.2	1	14.0	13.8	14.2	2		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	2		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Ortho_P	0.88	0.88	0.88	1	0.90	0.88	0.92	5		
Phosphorus	0.93	0.93	0.93	1	0.92	0.91	0.93	2		
Potassium	0.80	0.80	0.80	1	0.80	0.80	0.80	2		
Silicon	1.89	1.89	1.89	1	1.90	1.89	1.90	2		
Silver	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2		
Sodium	11.6	11.6	11.6	1	9.5	7.4	11.6	2	(200)	
Sulphate Dissolved	75	75	75	1	67	59	75	2	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	182	182	182	1	178	174	182	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		

2.2.9 Discovery Park Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	1.1	1.1	1.1	1	0.9	0.7	1.1	2	(15)	16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Chloroform	11.7	11.7	11.7	1	14.4	11.7	17.1	2		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	2		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.5	<1.0	1.9	2		
Total Volatile Organics (Unknown)	1.2	1.2	1.2	1	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 to the AEP Operating Approval 638-04-00

*** 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

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	1.1	1.1	1.1	1	1.4	1.1	1.6	2	(15)	10
Conductivity (uS/cm)	426	426	426	1	398	370	426	2		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.8	1	7.9	7.8	7.9	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.08	0.06	0.11	4	0.09	0.06	0.14	13		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	2	0.01	
Barium	0.060	0.060	0.060	1	0.058	0.056	0.060	2	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.01	
Cadmium	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2	0.007	
Chlorate Dissolved	0.080	0.080	0.080	1	0.090	0.080	0.100	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.74	0.74	0.74	1	0.73	0.72	0.74	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.100	0.100	0.100	1	0.090	0.080	0.100	2	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	0.010	0.010	0.010	2	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	2	0.05	
Strontium	0.483	0.483	0.483	1	0.471	0.458	0.483	2	7.0	
Total Chlorine	2.05	1.98	2.10	4	2.09	1.98	2.23	13	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	2	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2	2	

2.2.10 Kaskitayo Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total	128	128	128	1	123	118	128	2		
Aluminum	0.022	0.022	0.022	1	0.060	0.022	0.097	2	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	2		
Calcium	51.2	51.2	51.2	1	49.5	47.7	51.2	2		
Calcium Hardness	129	129	129	1	124	118	129	2		
Chloride Dissolved	6.0	6.0	6.0	1	6.2	6.0	6.5	2	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		
Lithium	0.0036	0.0036	0.0036	1	0.0033	0.0029	0.0036	2		
Magnesium	15.1	15.1	15.1	1	14.6	14.1	15.1	2		
Molybdenum	0.0008	0.0008	0.0008	1	0.0007	0.0006	0.0008	2		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Ortho_P	0.90	0.90	0.90	1	0.92	0.90	0.94	5		
Phosphorus	0.98	0.98	0.98	1	0.95	0.92	0.98	2		
Potassium	0.80	0.80	0.80	1	0.75	0.70	0.80	2		
Silicon	2.08	2.08	2.08	1	2.01	1.93	2.08	2		
Silver	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2		
Sodium	12.3	12.3	12.3	1	9.9	7.4	12.3	2	(200)	
Sulphate Dissolved	80	80	80	1	70	61	80	2	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	190	190	190	1	184	178	190	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		

2.2.10 Kaskitayo Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	0.8	0.8	0.8	1	0.8	0.7	0.8	2	(15)	16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Chloroform	9.8	9.8	9.8	1	11.6	9.8	13.4	2		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	2		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.5	<1.0	2.0	2		
Total Volatile Organics (Unknown)	1.1	1.1	1.1	1	1.1	1.1	1.1	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 638-04-00

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

2.2.11 Londonderry Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)				0	1.2	1.2	1.2	1	(15)	10
Conductivity (uS/cm)				0	390	390	390	1		
Odour				0	Inoff	Inoff	Inoff	1		
pH (N/A)				0	7.7	7.7	7.7	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.11	0.09	0.14	4	0.11	0.07	0.22	13		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	1	0.01	
Barium				0	0.056	0.056	0.056	1	2	
Boron				0	0.010	0.010	0.010	1	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	1	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved				0	0.188	0.188	0.188	1	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	1	1	
Chromium				0	<0.0002	<0.0002	<0.0002	1	0.05	
Copper				0	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride				0	0.73	0.73	0.73	1	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese				0	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved				0	0.080	0.080	0.080	1	10	
Nitrite (as N) Dissolved				0	0.010	0.010	0.010	1	1	
Selenium				0	0.0003	0.0003	0.0003	1	0.05	
Strontium				0	0.412	0.412	0.412	1	7.0	
Total Chlorine	2.04	2.00	2.08	4	2.09	2.00	2.25	13	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	1	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	1	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	1	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	1	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	1		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	1	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	1	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	1	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	1	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	1	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	1	10	
Toluene				0	<0.50	<0.50	<0.50	1	60 (24)	
Total Xylenes				0	<1	<1	<1	1	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	1	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	1	2	

2.2.11 Londonderry Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total				0	121	121	121	1		
Aluminum				0	0.023	0.023	0.023	1	2.9	0.1/0.2
Beryllium				0	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved				0	<0.010	<0.010	<0.010	1		
Calcium				0	49.2	49.2	49.2	1		
Calcium Hardness				0	122	122	122	1		
Chloride Dissolved				0	5.7	5.7	5.7	1	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	1		
Iron				0	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	1		
Lithium				0	0.0033	0.0033	0.0033	1		
Magnesium				0	14.3	14.3	14.3	1		
Molybdenum				0	0.0010	0.0010	0.0010	1		
Nickel				0	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.90	0.90	0.90	1	0.91	0.90	0.92	5		
Phosphorus				0	0.89	0.89	0.89	1		
Potassium				0	0.80	0.80	0.80	1		
Silicon				0	2.35	2.35	2.35	1		
Silver				0	<0.0002	<0.0002	<0.0002	1		
Sodium				0	9.8	9.8	9.8	1	(200)	
Sulphate Dissolved				0	73	73	73	1	(500)	
Thallium				0	<0.0005	<0.0005	<0.0005	1		
Tin				0	<0.0005	<0.0005	<0.0005	1		
Titanium				0	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)				0	184	184	184	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	1		
Zinc				0	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	1		

2.2.11 Londonderry Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane				0	1.4	1.4	1.4	1	(15)	16
Bromoform				0	<0.5	<0.5	<0.5	1		
Chloroform				0	14.5	14.5	14.5	1		
Dibromochloromethane				0	<0.50	<0.50	<0.50	1		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	1		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	1		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	1		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	1		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	1		
MIBK				0	<1.0	<1.0	<1.0	1		
Styrene				0	<0.50	<0.50	<0.50	1		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	1		
Total Organic Carbon				0	1.4	1.4	1.4	1		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	1		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	1		
Xylene (1,2)				0	<0.5	<0.5	<0.5	1		
Xylene (1,4)				0	<0.5	<0.5	<0.5	1		

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 638-04-00. 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 to the AEP Operating Approval 638-04-00.
- *** Secondary parameters do not have health-based limits but may have aesthetic or operational objectives.

2.2.12 Millwoods Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)				0	1.2	1.2	1.2	1	(15)	10
Conductivity (uS/cm)				0	402	402	402	1		
Odour				0	Inoff	Inoff	Inoff	1		
pH (N/A)				0	7.7	7.7	7.7	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.08	0.06	0.10	4	0.09	0.06	0.13	13		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	1	0.01	
Barium				0	0.056	0.056	0.056	1	2	
Boron				0	0.010	0.010	0.010	1	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	1	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved				0	0.090	0.090	0.090	1	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	1	1	
Chromium				0	<0.0002	<0.0002	<0.0002	1	0.05	
Copper				0	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride				0	0.68	0.68	0.68	1	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese				0	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved				0	0.080	0.080	0.080	1	10	
Nitrite (as N) Dissolved				0	0.010	0.010	0.010	1	1	
Selenium				0	0.0003	0.0003	0.0003	1	0.05	
Strontium				0	0.422	0.422	0.422	1	7.0	
Total Chlorine	2.07	2.02	2.12	4	2.10	2.02	2.21	13	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	1	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	2	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	2	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	2	10	
Toluene				0	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes				0	<1	<1	<1	2	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	2	2	

2.2.12 Millwoods Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total				0	123	123	123	1		
Aluminum				0	0.022	0.022	0.022	1	2.9	0.1/0.2
Beryllium				0	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved				0	<0.010	<0.010	<0.010	1		
Calcium				0	48.4	48.4	48.4	1		
Calcium Hardness				0	122	122	122	1		
Chloride Dissolved				0	6.1	6.1	6.1	1	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	1		
Iron				0	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	1		
Lithium				0	0.0031	0.0031	0.0031	1		
Magnesium				0	14.1	14.1	14.1	1		
Molybdenum				0	0.0011	0.0011	0.0011	1		
Nickel				0	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.96	0.96	0.96	1	0.91	0.88	0.96	5		
Phosphorus				0	0.90	0.90	0.90	1		
Potassium				0	0.80	0.80	0.80	1		
Silicon				0	2.29	2.29	2.29	1		
Silver				0	<0.0002	<0.0002	<0.0002	1		
Sodium				0	12.7	12.7	12.7	1	(200)	
Sulphate Dissolved				0	75	75	75	1	(500)	
Thallium				0	<0.0005	<0.0005	<0.0005	1		
Tin				0	<0.0005	<0.0005	<0.0005	1		
Titanium				0	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	1		
Zinc				0	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	1		

2.2.12 Millwoods Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane				0	1.0	1.0	1.0	2	(15)	16
Bromoform				0	<0.5	<0.5	<0.5	2		
Chloroform				0	9.1	8.3	9.9	2		
Dibromochloromethane				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	2		
MIBK				0	<1.0	<1.0	<1.0	2		
Styrene				0	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	2		
Total Organic Carbon				0	1.3	1.3	1.3	1		
Total Volatile Organics (NonTHM)				0	<1.1	<1.0	1.1	2		
Total Volatile Organics (Unknown)				0	1.3	1.3	1.3	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	2		
Xylene (1,2)				0	<0.5	<0.5	<0.5	2		
Xylene (1,4)				0	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 638-04-00

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

2.2.13 North Jasper Place Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	0.6	0.6	0.6	1	0.8	0.6	1.0	2	(15)	10
Conductivity (uS/cm)	421	421	421	1	394	367	421	2		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.8	1	7.8	7.8	7.8	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.07	0.05	0.07	4	0.09	0.05	0.13	13		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0003	2	0.01	
Barium	0.060	0.060	0.060	1	0.057	0.054	0.060	2	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.01	
Cadmium	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2	0.007	
Chlorate Dissolved	0.080	0.080	0.080	1	0.095	0.080	0.110	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.69	0.69	0.69	1	0.70	0.69	0.71	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.100	0.100	0.100	1	0.095	0.090	0.100	2	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	<0.010	<0.010	0.010	2	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	2	0.05	
Strontium	0.481	0.481	0.481	1	0.462	0.443	0.481	2	7.0	
Total Chlorine	1.94	1.81	2.07	4	1.92	1.78	2.07	13	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	2	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2	2	

2.2.13 North Jasper Place Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total	128	128	128	1	123	117	128	2		
Aluminum	0.024	0.024	0.024	1	0.063	0.024	0.102	2	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	2		
Calcium	51.0	51.0	51.0	1	48.7	46.4	51.0	2		
Calcium Hardness	128	128	128	1	122	116	128	2		
Chloride Dissolved	6.0	6.0	6.0	1	6.1	6.0	6.1	2	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		
Lithium	0.0036	0.0036	0.0036	1	0.0033	0.0030	0.0036	2		
Magnesium	14.7	14.7	14.7	1	14.4	14.0	14.7	2		
Molybdenum	0.0009	0.0009	0.0009	1	0.0007	0.0005	0.0009	2		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Ortho_P	0.88	0.88	0.88	1	0.91	0.88	0.96	5		
Phosphorus	0.98	0.98	0.98	1	0.95	0.92	0.98	2		
Potassium	0.80	0.80	0.80	1	0.75	0.70	0.80	2		
Silicon	2.08	2.08	2.08	1	2.00	1.91	2.08	2		
Silver	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2		
Sodium	11.8	11.8	11.8	1	9.5	7.2	11.8	2	(200)	
Sulphate Dissolved	78	78	78	1	69	60	78	2	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	194	194	194	1	184	173	194	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		

2.2.13 North Jasper Place Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	1.1	1.1	1.1	1	1.0	0.9	1.1	2	(15)	16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Chloroform	12.7	12.7	12.7	1	15.5	12.7	18.2	2		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Total Organic Carbon	1.3	1.3	1.3	1	1.3	1.2	1.3	2		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.6	<1.0	2.1	2		
Total Volatile Organics (Unknown)	1.7	1.7	1.7	1	1.7	1.7	1.7	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 638-04-00

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

2.2.14 Ormsby Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)				0	1.1	1.1	1.1	1	(15)	10
Conductivity (uS/cm)				0	408	408	408	1		
Odour				0	Inoff	Inoff	Inoff	1		
pH (N/A)				0	7.8	7.8	7.8	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.09	0.08	0.13	4	0.10	0.07	0.13	13		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	1	0.01	
Barium				0	0.057	0.057	0.057	1	2	
Boron				0	0.010	0.010	0.010	1	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	1	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved				0	0.080	0.080	0.080	1	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	1	1	
Chromium				0	<0.0002	<0.0002	<0.0002	1	0.05	
Copper				0	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride				0	0.68	0.68	0.68	1	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese				0	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved				0	0.080	0.080	0.080	1	10	
Nitrite (as N) Dissolved				0	0.010	0.010	0.010	1	1	
Selenium				0	0.0003	0.0003	0.0003	1	0.05	
Strontium				0	0.424	0.424	0.424	1	7.0	
Total Chlorine	2.04	2.00	2.11	4	2.07	2.00	2.15	13	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	1	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	2	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	2	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	2	10	
Toluene				0	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes				0	<1	<1	<1	2	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	2	2	

2.2.14 Ormsby Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total				0	123	123	123	1		
Aluminum				0	0.023	0.023	0.023	1	2.9	0.1/0.2
Beryllium				0	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved				0	<0.010	<0.010	<0.010	1		
Calcium				0	47.3	47.3	47.3	1		
Calcium Hardness				0	122	122	122	1		
Chloride Dissolved				0	6.3	6.3	6.3	1	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	1		
Iron				0	<0.005	<0.005	<0.005	1	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	1		
Lithium				0	0.0030	0.0030	0.0030	1		
Magnesium				0	13.8	13.8	13.8	1		
Molybdenum				0	0.0011	0.0011	0.0011	1		
Nickel				0	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.88	0.88	0.88	1	0.92	0.84	0.98	5		
Phosphorus				0	0.88	0.88	0.88	1		
Potassium				0	0.80	0.80	0.80	1		
Silicon				0	2.33	2.33	2.33	1		
Silver				0	<0.0002	<0.0002	<0.0002	1		
Sodium				0	12.9	12.9	12.9	1	(200)	
Sulphate Dissolved				0	75	75	75	1	(500)	
Thallium				0	<0.0005	<0.0005	<0.0005	1		
Tin				0	<0.0005	<0.0005	<0.0005	1		
Titanium				0	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	1		
Zinc				0	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	1		

2.2.14 Ormsby Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane				0	1.1	1.0	1.1	2	(15)	16
Bromoform				0	<0.5	<0.5	<0.5	2		
Chloroform				0	9.2	8.3	10.1	2		
Dibromochloromethane				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	2		
MIBK				0	<1.0	<1.0	<1.0	2		
Styrene				0	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	2		
Total Organic Carbon				0	1.3	1.3	1.3	1		
Total Volatile Organics (NonTHM)				0	<1.1	<1.0	1.2	2		
Total Volatile Organics (Unknown)				0	0.9	0.6	1.2	2		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	2		
Xylene (1,2)				0	<0.5	<0.5	<0.5	2		
Xylene (1,4)				0	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 to the AEP Operating Approval 638-04-00

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

2.2.15 Papaschase 1 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)				0	1.0	1.0	1.0	1	(15)	10
Conductivity (uS/cm)				0	407	407	407	1		
Odour				0	Inoff	Inoff	Inoff	1		
pH (N/A)				0	7.7	7.7	7.7	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.14	0.11	0.16	4	0.13	0.11	0.18	13		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	1	0.01	
Barium				0	0.058	0.058	0.058	1	2	
Boron				0	0.010	0.010	0.010	1	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	1	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved				0	0.190	0.190	0.190	1	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	1	1	
Chromium				0	<0.0002	<0.0002	<0.0002	1	0.05	
Copper				0	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride				0	0.69	0.69	0.69	1	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese				0	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved				0	0.090	0.090	0.090	1	10	
Nitrite (as N) Dissolved				0	0.010	0.010	0.010	1	1	
Selenium				0	0.0003	0.0003	0.0003	1	0.05	
Strontium				0	0.423	0.423	0.423	1	7.0	
Total Chlorine	1.98	1.87	2.11	4	1.97	1.87	2.15	13	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	1	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	2	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	2	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	2	10	
Toluene				0	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes				0	<1	<1	<1	2	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	2	2	

2.2.15 Papaschase 1 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total				0	120	120	120	1		
Aluminum				0	0.021	0.021	0.021	1	2.9	0.1/0.2
Beryllium				0	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved				0	<0.010	<0.010	<0.010	1		
Calcium				0	50.1	50.1	50.1	1		
Calcium Hardness				0	123	123	123	1		
Chloride Dissolved				0	7.5	7.5	7.5	1	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	1		
Iron				0	0.015	0.015	0.015	1	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	1		
Lithium				0	0.0034	0.0034	0.0034	1		
Magnesium				0	14.5	14.5	14.5	1		
Molybdenum				0	0.0011	0.0011	0.0011	1		
Nickel				0	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.86	0.86	0.86	1	0.87	0.86	0.88	5		
Phosphorus				0	0.88	0.88	0.88	1		
Potassium				0	0.80	0.80	0.80	1		
Silicon				0	2.39	2.39	2.39	1		
Silver				0	<0.0002	<0.0002	<0.0002	1		
Sodium				0	11.4	11.4	11.4	1	(200)	
Sulphate Dissolved				0	74	74	74	1	(500)	
Thallium				0	<0.0005	<0.0005	<0.0005	1		
Tin				0	<0.0005	<0.0005	<0.0005	1		
Titanium				0	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)				0	185	185	185	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	1		
Zinc				0	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	1		

2.2.15 Papaschase 1 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane				0	1.2	0.7	1.6	2	(15)	16
Bromoform				0	<0.5	<0.5	<0.5	2		
Chloroform				0	11.6	10.9	12.2	2		
Dibromochloromethane				0	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	2		
MIBK				0	<1.0	<1.0	<1.0	2		
Styrene				0	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	2		
Total Organic Carbon				0	1.4	1.4	1.4	1		
Total Volatile Organics (NonTHM)				0	<1.2	<1.0	1.3	2		
Total Volatile Organics (Unknown)				0	<0.5	<0.5	<0.5	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	2		
Xylene (1,2)				0	<0.5	<0.5	<0.5	2		
Xylene (1,4)				0	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 to the AEP Operating Approval 638-04-00.

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

2.2.16 Papaschase 2 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	0.9	0.9	0.9	1	1.2	0.9	1.4	2	(15)	10
Conductivity (uS/cm)	430	430	430	1	403	375	430	2		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.8	1	7.9	7.8	7.9	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.08	0.06	0.10	4	0.09	0.06	0.11	13		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	0.0002	2	0.01	
Barium	0.060	0.060	0.060	1	0.058	0.055	0.060	2	2	
Boron	0.010	0.010	0.010	1	0.009	0.008	0.010	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.01	
Cadmium	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2	0.007	
Chlorate Dissolved	0.108	0.108	0.108	1	0.135	0.108	0.161	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.74	0.74	0.74	1	0.73	0.71	0.74	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.100	0.100	0.100	1	0.095	0.090	0.100	2	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	<0.010	<0.010	0.010	2	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	2	0.05	
Strontium	0.477	0.477	0.477	1	0.461	0.445	0.477	2	7.0	
Total Chlorine	2.03	2.00	2.05	4	2.06	2.00	2.17	13	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	2	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2	2	

2.2.16 Papaschase 2 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total	128	128	128	1	124	120	128	2		
Aluminum	0.023	0.023	0.023	1	0.054	0.023	0.084	2	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	2		
Calcium	52.2	52.2	52.2	1	49.8	47.3	52.2	2		
Calcium Hardness	130	130	130	1	123	116	130	2		
Chloride Dissolved	7.2	7.2	7.2	1	6.5	5.8	7.2	2	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		
Lithium	0.0038	0.0038	0.0038	1	0.0034	0.0030	0.0038	2		
Magnesium	14.8	14.8	14.8	1	14.5	14.1	14.8	2		
Molybdenum	0.0008	0.0008	0.0008	1	0.0007	0.0006	0.0008	2		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Ortho_P	0.88	0.88	0.88	1	0.90	0.88	0.92	5		
Phosphorus	0.98	0.98	0.98	1	0.94	0.89	0.98	2		
Potassium	0.80	0.80	0.80	1	0.75	0.70	0.80	2		
Silicon	2.14	2.14	2.14	1	2.04	1.93	2.14	2		
Silver	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2		
Sodium	12.3	12.3	12.3	1	9.7	7.0	12.3	2	(200)	
Sulphate Dissolved	79	79	79	1	70	60	79	2	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	194	194	194	1	186	177	194	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		

2.2.16 Papaschase 2 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	0.8	0.8	0.8	1	0.9	0.8	0.9	2	(15)	16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Chloroform	9.9	9.9	9.9	1	12.8	9.9	15.6	2		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Total Organic Carbon	1.2	1.2	1.2	1	1.2	1.2	1.2	2		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.4	<1.0	1.8	2		
Total Volatile Organics (Unknown)	0.6	0.6	0.6	1	0.6	0.6	0.6	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 638-04-00

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

2.2.17 Rosslyn 1 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)				0	1.4	1.4	1.4	1	(15)	10
Conductivity (uS/cm)				0	400	400	400	1		
Odour				0	Inoff	Inoff	Inoff	1		
pH (N/A)				0	7.7	7.7	7.7	1	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.13	0.09	0.16	4	0.12	0.09	0.16	13		1
Primary Inorganics (mg/L) **										
Antimony				0	<0.0002	<0.0002	<0.0002	1	0.006	
Arsenic				0	<0.0002	<0.0002	<0.0002	1	0.01	
Barium				0	0.056	0.056	0.056	1	2	
Boron				0	0.010	0.010	0.010	1	2	
Bromate Dissolved				0	<0.005	<0.005	<0.005	1	0.01	
Cadmium				0	<0.0002	<0.0002	<0.0002	1	0.007	
Chlorate Dissolved				0	0.158	0.158	0.158	1	1	
Chlorite Dissolved				0	<0.005	<0.005	<0.005	1	1	
Chromium				0	<0.0002	<0.0002	<0.0002	1	0.05	
Copper				0	<0.005	<0.005	<0.005	1	2 (1)	
Fluoride				0	0.73	0.73	0.73	1	1.5	0.6 - 0.8
Lead				0	<0.0002	<0.0002	<0.0002	1	0.005	
Manganese				0	<0.002	<0.002	<0.002	1	0.12 (0.02)	
Mercury				0	<0.0002	<0.0002	<0.0002	1	0.001	
Nitrate (as N) Dissolved				0	0.080	0.080	0.080	1	10	
Nitrite (as N) Dissolved				0	0.010	0.010	0.010	1	1	
Selenium				0	0.0003	0.0003	0.0003	1	0.05	
Strontium				0	0.426	0.426	0.426	1	7.0	
Total Chlorine	1.99	1.93	2.06	4	1.94	1.77	2.07	13	>0.5 and <3.0	>1.0 and <2.4
Uranium				0	<0.0005	<0.0005	<0.0005	1	0.02	
Primary Organics (ug/L) **										
Benzene				0	<0.5	<0.5	<0.5	1	5	
Carbon Tetrachloride				0	<0.5	<0.5	<0.5	1	2	
Chlorobenzene				0	<0.50	<0.50	<0.50	1	80 (30)	
Dichlorobenzene (1,2)				0	<0.50	<0.50	<0.50	1		
Dichlorobenzene (1,4)				0	<0.5	<0.5	<0.5	1	5 (1)	
Dichloroethane (1,2)				0	<0.5	<0.5	<0.5	1	5	
Dichloroethylene (1,1)				0	<0.5	<0.5	<0.5	1	14	
Ethylbenzene				0	<0.50	<0.50	<0.50	1	140 (1.6)	
Methylene Chloride				0	<0.5	<0.5	<0.5	1	50	
Tetrachloroethylene				0	<0.5	<0.5	<0.5	1	10	
Toluene				0	<0.50	<0.50	<0.50	1	60 (24)	
Total Xylenes				0	<1	<1	<1	1	90	
Trichloroethylene				0	<0.50	<0.50	<0.50	1	5	
Vinyl Chloride				0	<1.0	<1.0	<1.0	1	2	

2.2.17 Rosslyn 1 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total				0	122	122	122	1		
Aluminum				0	0.032	0.032	0.032	1	2.9	0.1/0.2
Beryllium				0	<0.0002	<0.0002	<0.0002	1		
Bromide Dissolved				0	<0.010	<0.010	<0.010	1		
Calcium				0	49.8	49.8	49.8	1		
Calcium Hardness				0	122	122	122	1		
Chloride Dissolved				0	5.8	5.8	5.8	1	(250)	
Cobalt				0	<0.0002	<0.0002	<0.0002	1		
Iron				0	0.007	0.007	0.007	1	(0.3)	0.3
Lanthanum				0	<0.0010	<0.0010	<0.0010	1		
Lithium				0	0.0032	0.0032	0.0032	1		
Magnesium				0	14.6	14.6	14.6	1		
Molybdenum				0	0.0010	0.0010	0.0010	1		
Nickel				0	<0.0005	<0.0005	<0.0005	1		
Ortho_P	0.86	0.86	0.86	1	0.89	0.86	0.90	5		
Phosphorus				0	0.91	0.91	0.91	1		
Potassium				0	0.80	0.80	0.80	1		
Silicon				0	2.35	2.35	2.35	1		
Silver				0	<0.0002	<0.0002	<0.0002	1		
Sodium				0	10.7	10.7	10.7	1	(200)	
Sulphate Dissolved				0	73	73	73	1	(500)	
Thallium				0	<0.0005	<0.0005	<0.0005	1		
Tin				0	<0.0005	<0.0005	<0.0005	1		
Titanium				0	<0.0005	<0.0005	<0.0005	1		
Total Hardness (mg/L CaCO3)				0	183	183	183	1		
Vanadium				0	<0.0005	<0.0005	<0.0005	1		
Zinc				0	<0.005	<0.005	<0.005	1	(5.0)	
Zirconium				0	<0.0010	<0.0010	<0.0010	1		

2.2.17 Rosslyn 1 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane				0	1.5	1.5	1.5	1	(15)	16
Bromoform				0	<0.5	<0.5	<0.5	1		
Chloroform				0	13.7	13.7	13.7	1		
Dibromochloromethane				0	<0.50	<0.50	<0.50	1		
Dichlorobenzene (1,3)				0	<0.50	<0.50	<0.50	1		
Dichloroethylene, cis (1,2)				0	<0.50	<0.50	<0.50	1		
Dichloroethylene, trans (1,2)				0	<0.50	<0.50	<0.50	1		
Dichloropropane (1,2)				0	<0.5	<0.5	<0.5	1		
Methyl t-Butyl Ether (MTBE)				0	<0.5	<0.5	<0.5	1		
MIBK				0	<1.0	<1.0	<1.0	1		
Styrene				0	<0.50	<0.50	<0.50	1		
Tetrachloroethane (1,1,2,2)				0	<0.5	<0.5	<0.5	1		
Total Organic Carbon				0	1.3	1.3	1.3	1		
Total Volatile Organics (NonTHM)				0	<1.0	<1.0	<1.0	1		
Total Volatile Organics (Unknown)				0	1.0	1.0	1.0	1		
Trichlorobenzene (1,2,4)				0	<0.5	<0.5	<0.5	1		
Trichloroethane (1,1,1)				0	<0.5	<0.5	<0.5	1		
Xylene (1,2)				0	<0.5	<0.5	<0.5	1		
Xylene (1,4)				0	<0.5	<0.5	<0.5	1		

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 638-04-00. 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 638-04-00

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

2.2.18 Rosslyn 2 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	0.6	0.6	0.6	1	0.8	0.6	0.9	2	(15)	10
Conductivity (uS/cm)	419	419	419	1	394	369	419	2		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	2		
pH (N/A)	7.8	7.8	7.8	1	7.9	7.8	7.9	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.10	0.08	0.12	4	0.11	0.08	0.14	13		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.01	
Barium	0.061	0.061	0.061	1	0.058	0.054	0.061	2	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.01	
Cadmium	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2	0.007	
Chlorate Dissolved	0.147	0.147	0.147	1	0.166	0.147	0.184	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.68	0.68	0.68	1	0.70	0.68	0.71	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.100	0.100	0.100	1	0.095	0.090	0.100	2	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	<0.010	<0.010	0.010	2	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	<0.0002	0.0003	2	0.05	
Strontium	0.482	0.482	0.482	1	0.463	0.443	0.482	2	7.0	
Total Chlorine	1.93	1.88	1.96	4	1.95	1.88	2.08	13	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	2	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2	2	

2.2.18 Rosslyn 2 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total	127	127	127	1	125	122	127	2		
Aluminum	0.025	0.025	0.025	1	0.053	0.025	0.081	2	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	2		
Calcium	51.0	51.0	51.0	1	49.1	47.2	51.0	2		
Calcium Hardness	128	128	128	1	122	116	128	2		
Chloride Dissolved	5.9	5.9	5.9	1	5.7	5.6	5.9	2	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		
Lithium	0.0037	0.0037	0.0037	1	0.0034	0.0031	0.0037	2		
Magnesium	14.9	14.9	14.9	1	14.6	14.3	14.9	2		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	2		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Ortho_P	0.88	0.88	0.88	1	0.90	0.88	0.92	5		
Phosphorus	0.96	0.96	0.96	1	0.93	0.90	0.96	2		
Potassium	0.80	0.80	0.80	1	0.75	0.70	0.80	2		
Silicon	2.12	2.12	2.12	1	2.04	1.95	2.12	2		
Silver	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2		
Sodium	10.9	10.9	10.9	1	9.0	7.1	10.9	2	(200)	
Sulphate Dissolved	77	77	77	1	68	59	77	2	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	194	194	194	1	186	178	194	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		

2.2.18 Rosslyn 2 Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	1.1	1.1	1.1	1	1.1	1.0	1.1	2	(15)	16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Chloroform	14.6	14.6	14.6	1	16.8	14.6	18.9	2		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Total Organic Carbon	1.3	1.3	1.3	1	1.3	1.3	1.3	2		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.4	<1.0	1.8	2		
Total Volatile Organics (Unknown)	1.9	1.9	1.9	1	1.9	1.9	1.9	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 638-04-00

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

2.2.19 Thornclyff Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Physical										
Colour (TCU)	0.7	0.7	0.7	1	0.9	0.7	1.1	2	(15)	10
Conductivity (uS/cm)	420	420	420	1	394	368	420	2		
Odour	Inoff	Inoff	Inoff	1	Inoff	Inoff	Inoff	2		
pH (N/A)	7.9	7.9	7.9	1	7.9	7.9	7.9	2	(7.0 - 10.5)	7.3 - 8.3
Turbidity (NTU)	0.08	0.07	0.09	4	0.09	0.07	0.12	13		1
Primary Inorganics (mg/L) **										
Antimony	<0.0005	<0.0005	<0.0005	1	<0.0004	<0.0002	<0.0005	2	0.006	
Arsenic	<0.0002	<0.0002	<0.0002	1	0.0003	<0.0002	0.0003	2	0.01	
Barium	0.060	0.060	0.060	1	0.058	0.055	0.060	2	2	
Boron	0.009	0.009	0.009	1	0.009	0.008	0.009	2	2	
Bromate Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	0.01	
Cadmium	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2	0.007	
Chlorate Dissolved	0.080	0.080	0.080	1	0.095	0.080	0.109	2	1	
Chlorite Dissolved	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	1	
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.05	
Copper	<0.002	<0.002	<0.002	1	<0.004	<0.002	<0.005	2	2 (1)	
Fluoride	0.77	0.77	0.77	1	0.74	0.71	0.77	2	1.5	0.6 - 0.8
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.005	
Manganese	<0.002	<0.002	<0.002	1	<0.002	<0.002	<0.002	2	0.12 (0.02)	
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2	0.001	
Nitrate (as N) Dissolved	0.100	0.100	0.100	1	0.090	0.080	0.100	2	10	
Nitrite (as N) Dissolved	0.010	0.010	0.010	1	<0.010	<0.010	0.010	2	1	
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	2	0.05	
Strontium	0.476	0.476	0.476	1	0.462	0.447	0.476	2	7.0	
Total Chlorine	1.97	1.88	2.03	4	1.97	1.86	2.23	13	>0.5 and <3.0	>1.0 and <2.4
Uranium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0005	2	0.02	
Primary Organics (ug/L) **										
Benzene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Carbon Tetrachloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	2	
Chlorobenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	80 (30)	
Dichlorobenzene (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5 (1)	
Dichloroethane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	5	
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	14	
Ethylbenzene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	140 (1.6)	
Methylene Chloride	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	50	
Tetrachloroethylene	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2	10	
Toluene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	60 (24)	
Total Xylenes	<1	<1	<1	1	<1	<1	<1	2	90	
Trichloroethylene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2	5	
Vinyl Chloride	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2	2	

2.2.19 Thornclyff Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Inorganics (mg/L) ***										
Alkalinity Total	129	129	129	1	124	118	129	2		
Aluminum	0.027	0.027	0.027	1	0.064	0.027	0.101	2	2.9	0.1/0.2
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Bromide Dissolved	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	2		
Calcium	50.4	50.4	50.4	1	48.7	46.9	50.4	2		
Calcium Hardness	128	128	128	1	122	116	128	2		
Chloride Dissolved	6.0	6.0	6.0	1	6.1	6.0	6.1	2	(250)	
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	2		
Iron	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(0.3)	0.3
Lanthanum	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		
Lithium	0.0036	0.0036	0.0036	1	0.0033	0.0030	0.0036	2		
Magnesium	14.7	14.7	14.7	1	14.5	14.2	14.7	2		
Molybdenum	0.0009	0.0009	0.0009	1	0.0008	0.0006	0.0009	2		
Nickel	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Ortho_P	0.89	0.88	0.90	3	0.90	0.88	0.92	7		
Phosphorus	0.96	0.96	0.96	1	0.95	0.93	0.96	2		
Potassium	0.80	0.80	0.80	1	0.75	0.70	0.80	2		
Silicon	2.10	2.10	2.10	1	2.03	1.95	2.10	2		
Silver	<Inoff	<Inoff	<Inoff	1	<0.0001	<Inoff	<0.0002	2		
Sodium	12.0	12.0	12.0	1	9.7	7.3	12.0	2	(200)	
Sulphate Dissolved	78	78	78	1	69	60	78	2	(500)	
Thallium	<0.0002	<0.0002	<0.0002	1	<0.0004	<0.0002	<0.0005	2		
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Titanium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Total Hardness (mg/L CaCO3)	189	189	189	1	182	174	189	2		
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	2		
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	2	(5.0)	
Zirconium	<0.0010	<0.0010	<0.0010	1	<0.0010	<0.0010	<0.0010	2		

2.2.19 Thornclyff Reservoir

March 2024

Parameter									Limits	
	Monthly				YTD				*Approval or GCDWQ MAC, (AO or OG)	EPCOR
	Mean	Min	Max	Count	Mean	Min	Max	Count		
Secondary Organics (ug/L) ***										
Bromodichloromethane	0.9	0.9	0.9	1	0.9	0.8	0.9	2	(15)	16
Bromoform	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Chloroform	10.9	10.9	10.9	1	14.6	10.9	18.2	2		
Dibromochloromethane	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichlorobenzene (1,3)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, cis (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloroethylene, trans (1,2)	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Dichloropropane (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
MIBK	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	2		
Styrene	<0.50	<0.50	<0.50	1	<0.50	<0.50	<0.50	2		
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Total Organic Carbon	1.3	1.3	1.3	1	1.3	1.2	1.3	2		
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	1	1.4	<1.0	1.8	2		
Total Volatile Organics (Unknown)	1.2	1.2	1.2	1	1.2	1.2	1.2	1		
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,2)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		
Xylene (1,4)	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	2		

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 638-04-00. 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 638-04-00

*** 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**

March 2024

Parameter or Location													Limits	
	Monthly				YTD				12 months running				GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
NDMA (ug/L)													0.040	0.01
	0.001	0.001	0.001	3	0.001	0.001	0.001	3	0.001	0.001	0.001	3		
02-SR				0				0	0.001	<0.001	0.002	2		
03-SR				0				0	0.003	0.002	0.004	2		
04-SR				0	<0.006	<0.006	<0.006	1	<0.006	<0.006	<0.006	1		
05-RI				0				0	0.004	0.004	0.004	1		
07-SR				0				0	0.005	0.005	0.005	1		
10-SR				0				0	0.001	0.001	0.001	1		
15-SR				0				0	0.001	<0.001	0.002	2		
20-OF				0				0	<0.002	<0.002	<0.002	1		
21-SR				0				0	<0.002	<0.001	0.002	2		
24-SR				0	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
26-DE				0				0	<0.002	<0.001	<0.002	3		
31-DE				0	<0.006	<0.006	<0.006	1	<0.006	<0.002	0.011	3		
31-RI				0	0.007	0.007	0.007	1	0.006	<0.001	0.010	3		
32-SR				0				0	0.002	0.002	0.002	1		
36-DE				0				0	0.002	<0.001	0.002	2		
40-SR				0	<0.006	<0.006	<0.006	1	<0.003	<0.002	<0.006	5		
41-DE				0				0	0.002	0.002	0.002	1		
EDMONTON S4				0	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1		
				Total Count				3				9		36

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

March 2024

Parameter or Location													Limits	
	Monthly				YTD				12 months running				GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
Trihalomethanes (ug/L)													100	50
Castledowns Reservoir				0	19.8	19.8	19.8	1	21.4	16.2	28.8	5		
Clareview Reservoir	15.4	15.4	15.4	1	17.8	15.4	20.1	2	22.5	13.3	33.5	6		
Discovery Park Reservoir	13.1	13.1	13.1	1	15.6	13.1	18.1	2	17.4	6.8	29.8	7		
Kaskitayo Reservoir	10.8	10.8	10.8	1	12.6	10.8	14.4	2	20.0	10.8	29.9	7		
Londonderry Reservoir				0	16.0	16.0	16.0	1	19.6	6.1	29.2	6		
Millwoods Reservoir				0	10.3	9.5	11.1	2	16.6	5.0	28.8	7		
North Jasper Place Reservoir	14.0	14.0	14.0	1	16.7	14.0	19.4	2	19.3	8.7	35.7	7		
Ormsby Reservoir				0	10.5	9.6	11.4	2	17.0	5.2	30.1	7		
Papaschase Reservoir 1				0	12.9	11.9	13.9	2	19.8	8.9	32.9	8		
Papaschase Reservoir 2	11.0	11.0	11.0	1	13.9	11.0	16.8	2	20.1	10.9	33.1	6		
Rosslyn Reservoir 1				0	15.5	15.5	15.5	1	21.8	7.9	30.0	7		
Rosslyn Reservoir 2	16.1	16.1	16.1	1	18.1	16.1	20.1	2	22.9	9.4	32.6	7		
Thornclyff Reservoir	12.2	12.2	12.2	1	15.7	12.2	19.1	2	20.0	8.2	31.6	6		
	Total Count			7				23				86		

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

March 2024

Parameter or Location													Limits	
	Monthly				YTD				12 months running				GCDWQ or Approval or MAC* or (AO or OG) 12 month running	EPCOR single result
	Mean	Min	Max	Count	Mean	Min	Max	Count	Mean	Min	Max	Count		
	13.9	12.5	17.1	6	13.9	12.5	17.1	6	13.9	12.5	17.1	6		
	Total Count			6				6				6		

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

March 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	1	<0.2	<0.2	<0.2	1
Physical																
Colour (TCU)	13.6	5.4	43.8	31	13.8	4.7	43.6	31	10.2	5.2	43.8	90	10.5	4.7	43.6	90
Conductivity (uS/cm)	370	350	390	4	361	337	387	4	374	350	415	13	367	337	416	13
FPA-Intensity (N/A)	1.36	0.62	2.38	13	1.32	0.69	2.25	13	1.04	0.38	2.38	22	1.06	0.44	2.25	22
pH (N/A)	8.1	8.1	8.1	1	8.2	8.2	8.2	1	8.1	8.1	8.2	3	8.2	8.1	8.2	3
Total Dissolved Solids (mg/L)	231	231	231	1	240	240	240	1	220	212	231	3	225	213	240	3
Total Suspended Solids	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	1	<2.5	<2.5	<2.5	3	<2.5	<2.5	<2.5	3
Turbidity (NTU)	3.6	0.9	26.1	31	2.4	0.9	7.5	31	2.6	0.9	26.1	90	2.1	0.9	7.5	90
Primary Inorganics (mg/L) **																
Antimony	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Arsenic	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	1	0.0002	0.0002	0.0002	3	0.0002	0.0002	0.0003	3
Barium	0.070	0.070	0.070	1	0.070	0.070	0.070	1	0.065	0.059	0.070	3	0.065	0.059	0.070	3
Boron	0.01	0.01	0.01	1	0.01	0.01	0.01	1	0.01	0.01	0.01	3	0.01	0.01	0.01	3
Cadmium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Chromium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Copper	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3
Fluoride	0.10	0.10	0.11	4	0.11	0.10	0.11	4	0.11	0.10	0.13	13	0.11	0.10	0.12	13
Lead	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Manganese	<0.002	<0.002	<0.002	1	0.003	0.003	0.003	1	<0.002	<0.002	0.002	3	0.004	0.003	0.005	3
Mercury	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0001	<0.0002	4	<0.0002	<0.0001	<0.0002	4
Nitrate (as N) Dissolved	0.12	0.09	0.16	4	0.10	0.08	0.14	4	0.10	0.08	0.16	13	0.09	0.08	0.14	13
Nitrite (as N) Dissolved	<0.01	<0.01	<0.01	4	<0.01	<0.01	<0.01	4	<0.01	<0.01	<0.01	13	<0.01	<0.01	<0.01	13
Selenium	0.0003	0.0003	0.0003	1	0.0003	0.0003	0.0003	1	0.0003	0.0002	0.0003	3	0.0003	<0.0002	0.0003	3
Total Chlorine	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	1	<0.03	<0.03	<0.03	3	<0.03	<0.03	<0.03	3
Uranium	0.0006	0.0006	0.0006	1	0.0006	0.0006	0.0006	1	0.0006	0.0005	0.0006	3	<0.0006	<0.0005	0.0006	3

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

March 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	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Atrazine				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Benzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Benzo(a)pyrene				0				0	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1
Bromoxynil				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Carbon Tetrachloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91
Chlorobenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Chlorpyrifos				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Cyanazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Diazinon				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
Dicamba				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Dichlorobenzene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dichlorobenzene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dichloroethane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	90	<0.5	<0.5	<0.5	90
Dichloroethylene (1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<3.0	91	<0.5	<0.5	<3.0	91
Dichlorophenol (2,4)				0				0	<0.3	<0.3	<0.3	1	<0.3	<0.3	<0.3	1
Diclofop-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Dimethoate				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Diuron				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Ethylbenzene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Glyphosate				0				0	<0.2	<0.2	<0.2	1	<0.2	<0.2	<0.2	1
Malathion				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
MCPA				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Methylene Chloride	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Metolachlor				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
Metribuzin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
NDMA (µg/L)				0				0	<0.0009	<0.0009	<0.0009	1	<0.00100	<0.00099	<0.00100	1
Nitritotriacetic acid				0				0	<0.4000	<0.400000	<0.40	1	<0.40	<0.40	<0.40	1
Pentachlorophenol				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Perfluorooctane sulfonic acid (PFOS)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Perfluorooctanoic acid (PFOA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Phorate				0				0	<0.25	<0.25	<0.25	1	<0.25	<0.25	<0.25	1
Picloram				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Simazine				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Terbufos				0				0	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	1
Tetrachloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Toluene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Total Xylenes	<1.0	<1.0	<1.0	31	<1.0	<1.0	<1.0	31	<1.0	<1.0	<2.5	91	<1.0	<1.0	<2.5	91
Trichloroethylene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Trifluralin				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1

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

March 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	<1	<1	31	<1	<1	<1	31	<1	<1	<1	91	<1	<1	<1	91
Vinyl Chloride	<1	<1	<1	31	<1	<1	<1	31	<1	<1	<1	90	<1	<1	<1	90
Secondary Inorganics (mg/L) ***																
Alkalinity Total	127	117	140	4	126	115	140	4	130	117	149	13	130	115	151	13
Alkalinity, PHP (mg CaCO3/L)	<3	<3	<3	1	<3	<3	<3	1	<3	<3	<3	3	<3	<3	<3	3
Aluminum	0.138	0.138	0.138	1	0.078	0.078	0.078	1	0.129	0.108	0.140	3	0.106	0.078	0.132	3
Ammonia as NH3	<0.06	<0.05	0.09	14	0.07	<0.05	0.14	14	<0.06	<0.05	0.09	23	<0.06	<0.05	0.14	23
Beryllium	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Calcium Hardness	118	102	131	4	116	99	129	4	121	102	138	13	120	99	140	13
Cobalt	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Free Chlorine	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	1	<0.07	<0.07	<0.07	3	<0.07	<0.07	<0.07	3
Iron	0.051	0.051	0.051	1	0.075	0.075	0.075	1	0.067	0.051	0.078	3	0.097	0.075	0.108	3
Lanthanum	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	3	<0.001	<0.001	<0.001	3
Lithium	0.0038	0.0038	0.0038	1	0.0038	0.0038	0.0038	1	0.0035	0.0033	0.0038	3	0.0035	0.0033	0.0038	3
Magnesium	15.4	15.4	15.4	1	15.3	15.3	15.3	1	14.8	14.4	15.4	3	14.8	14.4	15.3	3
Molybdenum	0.0008	0.0008	0.0008	1	0.0008	0.0008	0.0008	1	0.0009	0.0008	0.0010	3	0.0009	0.0008	0.0010	3
Nickel	0.0005	0.0005	0.0005	1	0.0005	0.0005	0.0005	1	0.0006	0.0005	0.0007	3	0.0005	0.0005	0.0006	3
Ortho_P	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	4	<0.02	<0.02	<0.02	4
Phosphorus	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	3	<0.02	<0.02	<0.02	3
Potassium	0.8	0.8	0.8	1	0.8	0.8	0.8	1	0.8	0.7	0.8	3	0.8	0.7	0.8	3
Silicon	2.14	2.14	2.14	1	2.11	2.11	2.11	1	2.20	2.09	2.38	3	2.20	2.03	2.45	3
Silver	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	1	<0.0002	<0.0002	<0.0002	3	<0.0002	<0.0002	<0.0002	3
Sodium	4.5	4.5	4.5	1	4.4	4.4	4.4	1	4.2	3.8	4.5	3	4.1	3.8	4.4	3
Strontium	0.499	0.499	0.499	1	0.504	0.504	0.504	1	0.466	0.429	0.499	3	0.464	0.425	0.504	3
Thallium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	<0.0005	<0.0005	<0.0005	3
Tin	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	3	<0.0005	<0.0005	<0.0005	3
Titanium	0.0016	0.0016	0.0016	1	0.0017	0.0017	0.0017	1	0.0020	0.0015	0.0028	3	0.0023	0.0017	0.0033	3
Total Hardness (mg/L CaCO3)	176	153	198	4	176	155	194	4	182	153	211	13	183	155	203	13
Total Kjeldahl Nitrogen	0.2	0.2	0.2	1	0.2	0.2	0.2	1	0.1	0.1	0.2	3	0.1	<0.1	0.2	3
Total Kjeldahl Nitrogen (TKN)	0.4	<0.1	1.0	21	0.7	<0.1	9.4	22	0.4	<0.1	1.0	21	0.7	<0.1	9.4	22
Vanadium	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	<0.0005	1	<0.0005	<0.0005	0.0006	3	<0.0005	<0.0005	<0.0005	3
Zinc	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	1	<0.005	<0.005	<0.005	3	<0.005	<0.005	<0.005	3
Zirconium	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	1	<0.001	<0.001	<0.001	3	<0.001	<0.001	<0.001	3

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

March 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	1	<0.1	<0.1	<0.1	1
Aldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1
Azinphos-methyl				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Bromodichloromethane	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Bromoform	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91
Carbaryl				0				0	<0.05	<0.05	<0.05	1	<0.05	<0.05	<0.05	1
Carbofuran				0				0	<0.025	<0.025	<0.025	1	<0.025	<0.025	<0.025	1
Chloroform	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dibromochloromethane	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dichlorobenzene (1,3)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dichloroethylene, cis (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dichloroethylene, trans (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dichloropropane (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Dieldrin				0				0	<0.008	<0.008	<0.008	1	<0.008	<0.008	<0.008	1
Methyl t-Butyl Ether (MTBE)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
MIBK	<1	<1	<1	31	<1	<1	<1	31	<1	<1	<1	91	<1	<1	<1	91
Parathion				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Perfluorobutanoic acid (PFBA)				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Perfluoroheptanoic acid (PFHpA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Perfluorohexane sulfonic acid (PFHxS)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Perfluorohexanoic acid (PFHxA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Perfluorononanoic acid (PFNA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Perfluoropentanoic acid (PFPeA)				0				0	<0.02	<0.02	<0.02	1	<0.02	<0.02	<0.02	1
Styrene	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Tetrachloroethane (1,1,2,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<1.0	91	<0.5	<0.5	<1.0	91
Total Organic Carbon	2.8	1.6	5.4	4	2.8	1.4	5.9	4	2.3	1.1	5.4	13	2.3	1.2	5.9	13
Total Volatile Organics (NonTHM)	<1.0	<1.0	<1.0	31	<1.0	<1.0	1.2	31	<1.2	<1.0	2.2	91	<1.2	<1.0	2.2	91
Total Volatile Organics (Unknown)	0.8	0.7	1.0	7	<0.6	<0.5	0.8	9	<0.8	<0.5	1.0	20	<0.6	<0.5	1.1	26
Triallate				0				0	<0.1	<0.1	<0.1	1	<0.1	<0.1	<0.1	1
Trichloroacetic acid				0				0	<1	<1	<1	1	<1	<1	<1	1
Trichlorobenzene (1,2,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Trichloroethane (1,1,1)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Xylene (1,2)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91
Xylene (1,4)	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	31	<0.5	<0.5	<0.5	91	<0.5	<0.5	<0.5	91

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

(Lab Neutralization Tank in Water Excellence Lab Building)

Date	pH**
06-Mar-2024	8.02
14-Mar-2024	6.93
27-Mar-2024	7.96

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

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Ammonia as N	0.05	mg/L
Ammonia as NH ₃	0.05	mg/L
Benzene	0.5	µg/L
Bromate Dissolved	0.005	mg/L
Bromide Dissolved	0.01	mg/L
Bromodichloromethane	0.5	µg/L
Bromoform	0.5	µg/L
Carbon Tetrachloride	0.5	µg/L
Cellular ATP	0.1	pg/mL
Chlorate Dissolved	0.01	mg/L
Chloride Dissolved	0.1	mg/L
Chlorite Dissolved	0.005	mg/L
Chlorobenzene	0.5	µg/L
Chloroform	0.5	µg/L
Coliforms, total	1	PA/100mL
Dibromochloromethane	0.5	µg/L
Dichlorobenzene (1,2)	0.5	µg/L
Dichlorobenzene (1,3)	0.5	µg/L
Dichlorobenzene (1,4)	0.5	µg/L
Dichloroethane (1,2)	0.5	µg/L
Dichloroethylene (1,1)	0.5	µg/L
Dichloroethylene, cis (1,2)	0.5	µg/L
Dichloroethylene, trans (1,2)	0.5	µg/L
Dichloropropane (1,2)	0.5	µg/L
E. coli	1	PA/100mL
Ethylbenzene	0.5	µg/L
Methyl t-Butyl Ether (MTBE)	0.5	µg/L
Methylene Chloride	0.5	µg/L
MIBK	1.0	µg/L
Nitrate (as N) Dissolved	0.01	mg/L
Nitrite (as N) Dissolved	0.01	mg/L
Styrene	0.5	µg/L
Sulphate Dissolved	0.2	mg/L
Tetrachloroethane (1,1,2,2)	0.5	µg/L
Tetrachloroethylene	0.5	µg/L
Toluene	0.5	µg/L
Total Volatile Organics (NonTHM)	1.0	µg/L
Total Volatile Organics (Unknown)	0.5	µg/L
Total Xylenes	1.0	µg/L
Trichlorobenzene (1,2,4)	0.5	µg/L
Trichloroethane (1,1,1)	0.5	µg/L
Trichloroethylene	0.5	µg/L
Trihalomethanes	1.0	µg/L
Turbidity	0.04	NTU
Vinyl Chloride	1.0	µg/L
Xylene (1,2)	0.5	µg/L
Xylene (1,4)	0.5	µg/L

2.2.23 REPORTABLE DETECTION LIMITS

Analyte	RDL	Unit
Contract Lab Analysis		
Bromochloroacetic acid	1.00	ug/L
Dibromoacetic acid	1.00	ug/L
Dichloroacetic acid	1.00	ug/L
Haloacetic Acids, total (HAA5)	5.00	ug/L
Monobromoacetic acid	1.00	ug/L
Monochloroacetic acid	1.00	ug/L
NDMA	0.00090	µg/L
Trichloroacetic acid	1.00	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 CaCO₃/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