



March 15, 2023

Mr. Don Turner  
Environmental Project Officer  
Water Security Agency  
Suite 300 – 2365 Albert Street  
Regina, SK S4P 4K1

Dear Mr. Turner:

RE: Monthly Report: **February 2023**

---

In compliance with the City of Regina “Permit to Operate a Sewage Works” # 0050853-07-00 please find attached the monthly report for February 2023.

I trust this meets with your approval, should you have any questions please do not hesitate to contact me directly at (306) 519-9054 or Justin Allan at (306) 551-3180.

Yours truly,

A handwritten signature in blue ink, appearing to read "J. Zimmer", with a long horizontal flourish extending to the right.

Joe Zimmer, P. Eng.  
Manager, Regina Operations  
EPCOR Water Services

# City of Regina - Wastewater Treatment Plant

February 2023

Final Effluent Results

Permit# 00050853-07-00

Date	Flow to Creek	Total Coliform	<i>E. coli</i>	Enterococci	Dissolved Oxygen (Field Test)	Temp. (Field Test)	Chloride (Field Test)	Total Phosphorus	pH @15±1°C	Total Suspended Solids	CBOD	Ammonia Nitrogen	Unionized Ammonia @15±1°C	Total Kjeldahl Nitrogen	Total Nitrogen
	(ML)	(MPN /100mL)			(mg/L)	(°C)	(mg/L)	(mg P/L)	(SU)	(mg/L)	(mg/L)	(mg N/L)	(mg N/L)	(mg N/L)	(mg N/L)
01	61.83	56	4		7.59	13.6	211	0.65	7.27	13.5	3.7	< 0.30	< 0.030	4.1	12.9
02	62.26	26	1		7.74	13.2	205	0.79	7.30	23.1	3.5	0.32	< 0.030	4.0	13.1
03	62.18	52	11		7.74	13.4		0.60		12.0		< 0.30		3.3	12.2
04	62.58					14.2		0.46		9.8		< 0.30		2.9	11.3
05	64.68					14.3	209	0.59	7.44	10.9	3.6	0.97	< 0.030	4.4	12.1
06	64.02	20	2		7.20	14.2	220	0.62	7.47	13.7	2.7	< 0.30	< 0.030	3.9	12.0
07	61.79	68	2	8	6.03	14.3	223	0.43	7.35	9.8	3.3	< 0.30	< 0.030	2.4	9.3
08	61.12	12	2		5.97	14.1	229	0.39	7.40	9.1	2.1	< 0.30	< 0.030	2.8	10.7
09	61.88	22	3		7.54	14.0	240	0.40	7.43	7.8	2.3	< 0.30	< 0.030	2.4	11.0
10	63.32	23	2		7.74	13.9		0.41		7.4		0.76		3.5	13.2
11	64.22				7.29	14.1		0.36		6.6		< 0.30		2.6	12.0
12	65.99				7.26	14.2	243	0.41	7.42	7.8	3.3	0.47	< 0.030	3.2	11.8
13	64.86	32	3	4	7.17	14.1	237	0.46	7.27	8.2	3.1	< 0.30	< 0.030	2.7	10.6
14	63.00	236	20		8.07	13.2	252	0.61	7.17	13.6	3.9	< 0.30	< 0.030	2.8	11.7
15	62.83	56	12		7.79	13.5	238	0.42	7.13	8.4	3.5	< 0.30	< 0.030	2.6	12.2
16	64.13	148	5		7.45	13.3	229	0.45	7.24	9.2	3.7	< 0.30	< 0.030	3.0	11.6
17	64.13	187	30		7.59	13.7		0.45		9.4		< 0.30		3.1	12.6
18	63.89				7.32	13.8		0.43		8.6		0.40		3.3	12.6
19	62.44				7.62	13.5	227	0.52	7.36	12.0	3.4	< 0.30	< 0.030	3.0	11.6
20	62.49	172	6		7.57	13.3	227	0.53	7.37	8.0	4.0	0.66	< 0.030	3.6	12.1
21	61.87	25	3	3	7.75	13.2	218	0.27	7.43	6.0	< 2.0	< 0.30	< 0.030	2.4	10.8
22	61.14	22	4		7.82	13.0	222	0.55	7.23	10.4	3.3	< 0.30	< 0.030	2.2	10.3
23	61.67	249	4		8.21	13.0	213	0.48	7.30	9.4	3.7	< 0.30	< 0.030	3.3	12.0
24	61.11	53	6		7.50	12.7		0.51		9.8		0.45		3.7	13.0
25	63.12				6.94	12.8		0.47		9.4		0.58		3.6	11.8
26	65.40				6.79	12.8	197	0.57	7.39	11.8	4.1	1.26	< 0.030	4.5	11.8
27	63.99	184	18	28	7.01	13.1	199	0.53	7.36	10.6	3.3	0.33	< 0.030	3.3	11.0
28	63.73	54	10		7.27	13.3	202	0.53	7.21	9.0	3.7	0.96	< 0.030	4.3	12.0
Sum	1765.67														
Avg	63.06				7.38	13.6	222	0.50	7.33	10	3	< 1	< 0.030	3.2	12
Min	61.11				5.97	12.7	197	0.27	7.13	6.0	< 2.0	< 0.30	< 0.030	2.2	9.3
Max	65.99		30		8.21	14.3	252	0.79	7.47	23.1	4.1	1.26	< 0.030	4.5	13.2
Permit Limits			≤1,000					≤0.75		≤15	≤15	≤10	≤1.24		≤14

**E. coli Geometric Mean = 5 MPN/100mL, Limit = 200 MPN/100mL**

**Plant Notes:**

None.

**WSA Notes:**

Feb 3 - Total coliform and *E. coli* results qualified. Incubator temperature exceeded acceptance criteria.

# Creek Monthly Report to Water Security Agency

Tuesday, February 7, 2023

Permit# 00050853-07-00

Test Description	Riske's Crossing	Final Effluent	Sidmar Crossing	Wascana above the Qu'Appelle	Qu'Appelle above the Wascana	Lumsden
Dissolved Oxygen (Field Test)	7.92	6.03	8.18	6.78	7.22	6.10
pH (Field Test for Creek Samples)	7.15	7.35	6.72	6.88	7.01	6.89
Temperature (Field Test)	1.5	14.3	3.3	0.4	0.4	0.1
Total Suspended Solids	7.0	9.8	23.2	10.0	11.4	65.4
Carbonaceous Biochemical Oxygen Demand	<2.0	3.3	<2.0	<2.0	<2.0	<2.0
Total Phosphorus	0.60	0.43	0.37	0.21	0.06	0.17
Total Kjeldahl Nitrogen	4.1	2.4	3.0	2.1	1.3	1.8
Ammonia Nitrogen	2.52	<0.30	0.61	0.45	<0.30	0.48
Nitrate Nitrogen	0.41	6.87	9.63	9.62	1.38	4.68
Total Nitrogen	4.5	9.3	12.8	11.8	2.7	6.5
Phenol Alkalinity	0	0	0	0	0	0
Total Alkalinity	251	178	175	174	264	208
Carbonate	0	0	0	0	0	0
Bicarbonate	306	217	213	212	322	254
Chloride (Field Test)	180	223	226	208	55.8	151
Total Coliform	2,190	68	2,480	214	115	186
<i>E. coli</i>	1,120	2	727	41	2	20
Enterococci	326	8	249	29	<1	12
Total Hardness*	346	346	348	332	356	353
Calcium*	76	81	82	77	77	79
Magnesium*	38	35	35	34	40	38
Potassium*	12	18	18	17	8.9	14
Sodium*	136	176	173	160	98	144
Sulfate*	170	240	240	230	230	240
Total Dissolved Solids*		935				
Conductivity at 25°C*		1520				
Phenolics*		0.011				
Mercury*		0.000001				
Aluminum*		0.030				
Antimony*		0.0007				
Arsenic*		0.0010				
Barium*		0.062				
Beryllium*		<0.0001				
Boron*		0.33				
Cadmium*		0.00002				
Chromium*		0.0010				
Cobalt*		0.0004				
Copper*		0.030				
Iron*		0.098				
Lead*		0.0014				
Manganese*		0.20				
Molybdenum*		0.011				
Nickel*		0.0024				
Selenium*		0.0058				
Silver*		<0.00005				
Strontium*		0.49				
Thallium*		<0.0002				
Uranium*		0.0008				
Vanadium*		0.0004				
Zinc*		0.056				

**Notes:**

\* Tests conducted by an external accredited laboratory.

Results are in mg/L except total coliforms, *E.coli*, enterococci (MPN/100mL), temperature (°C), conductivity (µS/cm) and pH (SU).

**Primary Influent BOD Results (mg/L)**

Feb 2 - 228; Feb 7 - 226; Feb 9 - 236; Feb 14 - 246; Feb 16 - 268; Feb 21 - 241; Feb 23 - 240; Feb 28 - 210