

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data**

September 2019

Licence 2684 RRR	File # 1071.10	Final Effluent 24 Hour Composite							Final Effluent Grab Sample					
		Date	Raw Sewage Daily Flow ML**	TSS	BOD5	cBOD5	Ammonia	Ortho Phosphorus	Total Phosphorus	Total Nitrogen	Temp.	pH	Fecal Coliform	E.Coli
				(mg/L)	(mg/L)	(mg/L)	(kg NH3-N/day)	(mg/L-P)	(mg/L-P)*	(mg/L-N)*	(°C)	(units)	MPN/100 mL	
1-Sep-19	503.9	54	23	10	1,849	0.42	3.8	38.0	17.9	6.76	(>24,200)	(>24,200)		
2-Sep-19	208.5	31	21	10	1,549	1.69	3.8	37.5	18.5	6.69	800	470		
3-Sep-19	305.2	9	8	3	1,993	1.53	3.7	36.9	17.4	6.75	1,400	930		
4-Sep-19	186.4	8	7	3	2,031	2.74	3.7	36.6	18.7	6.71	330	150		
5-Sep-19	214.6	10	9	4	2,662	2.87	3.6	36.2	19.0	6.69	90	70		
6-Sep-19	169.4	13	9	4	2,490	3.56	3.6	35.9	19.7	6.54	80	110		
7-Sep-19	154.2	10	14	6	2,482	4.12	3.6	35.7	19.1	6.45	230	60		
8-Sep-19	157.0	17	16	6	2,403	4.18	3.6	35.4	19.2	6.46	750	930		
9-Sep-19	203.7	65	47	25	3,524	3.59	3.6	35.5	19.0	6.41	(nr)	40		
10-Sep-19	385.1	22	27	8	2,168	1.07	3.6	35.3	16.5	6.65	(1,660)	(1,220)		
11-Sep-19	180.9	10	11	4	1,917	2.17	3.5	34.9	18.5	6.57	390	340		
12-Sep-19	224.7	31	28	12	3,348	2.74	3.6	34.3	18.7	6.66	160	240		
13-Sep-19	501.6	63	39	24	2,508	0.81	3.5	32.9	14.7	6.80	(>24,200)	(>24,200)		
14-Sep-19	234.7	12	10	4	1,485	1.28	3.4	32.0	16.7	6.75	1,380	2,010		
15-Sep-19	191.9	11	8	4	1,976	2.28	3.4	31.2	18.0	6.68	420	360		
16-Sep-19	188.1	27	11	5	2,578	3.14	3.3	30.8	19.8	6.60	70	160		
17-Sep-19	182.1	15	9	5	2,331	3.69	3.3	30.3	19.5	6.59	1,330	1,240		
18-Sep-19	175.1	16	11	5	2,487	3.72	3.3	29.9	19.9	6.45	40	20		
19-Sep-19	162.9	22	17	7	2,508	3.78	3.4	30.2	19.1	6.55	120	290		
20-Sep-19	435.2	76	40	25	3,664	1.74	3.4	29.4	18.6	6.59	(17,300)	(>24,200)		
21-Sep-19	509.9	34	22	11	1,683	0.82	3.3	28.2	17.8	6.88	(1,790)	(1,250)		
22-Sep-19	423.3	14	8	3	876	1.20	3.2	27.0	17.0	6.91	(2,610)	(1,720)		
23-Sep-19	273.2	10	7	4	1,106	1.93	3.1	25.9	18.5	6.83	250	170		
24-Sep-19	234.5	10	6	3	1,325	2.23	3.1	25.8	18.5	6.68	60	110		
25-Sep-19	210.0	9	5	2	1,377	2.65	3.2	25.8	18.5	6.74	50	50		
26-Sep-19	301.0	105	69	36	2,276	2.31	3.3	25.4	18.7	6.67	30	80		
27-Sep-19	419.7	15	10	6	1,578	1.25	3.2	24.4	15.0	6.89	(1,110)	(810)		
28-Sep-19	235.7	11	7	<4	978	1.53	3.1	23.6	16.5	6.86	140	170		
29-Sep-19	433.6	79	60	31	2,194	1.46	3.0	22.9	15.6	6.83	(>24,200)	(>24,200)		
30-Sep-19	603.7	96	55	21	2,179	1.05	3.0	22.6	14.1	7.03	(>24,200)	(>24,200)		
Max:	603.7													
Min:	154.2													
Average:	287.0	30	20	10	2,117	2.25			18.0	6.69				
Total Flow:	8609.4													
Geo.Mean:											208	193		

Notes:

- (1) Effluent ammonia load based upon Raw Sewage flows and Final NH3-N concentrations
- (2) nr - not recorded or no result; na - not analyzed; ns - no sample
- (3) Where value is expressed as less than (<), the value is halved and used in the calculations
- (4) * = 30 day rolling average
- (5)** Flow, highlighted in bold, in excess of 380 ML/D per clause 26 of Licence 2684RRR

- (6) Bracketed Coliform results not used in the Geometric Mean calculation
- (7) Raw wastewater flows in excess of 400 ML/D will by-pass the secondary process and flows in excess of 675 ML/D will cause raw sewage to by-pass the plant