

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
February 2019**

Licence 2684 RRR	File # 1071.10	Final Effluent 24 Hour Composite							Final Effluent Grab Sample					
		Date	Raw Sewage Daily Flow	TSS	BOD5	cBOD5	Ammonia	Ortho Phosphorus	Total Phosphorus	Total Nitrogen	Temp.	pH	Fecal Coliform	E.Coli
			ML**	(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-Feb-19	129.9	19	nr	nr	5,299	1.73	3.8	51.3	13.0	6.90	620	520		
2-Feb-19	129.0	19	nr	nr	5,455	1.70	3.7	51.4	13.1	6.76	50	50		
3-Feb-19	129.4	22	nr	nr	5,149	1.82	3.6	51.7	12.8	6.75	10	30		
4-Feb-19	128.5	23	nr	nr	4,894	1.45	3.5	51.7	12.3	6.71	60	50		
5-Feb-19	125.9	19	nr	nr	4,785	1.42	3.5	52.0	12.6	6.83	100	60		
6-Feb-19	133.9	22	nr	nr	5,302	1.83	3.4	52.4	12.6	6.83	80	60		
7-Feb-19	130.1	21	nr	nr	5,243	1.64	3.3	52.6	12.5	6.90	150	190		
8-Feb-19	130.4	24	nr	nr	5,256	1.70	3.2	52.8	13.0	6.82	170	230		
9-Feb-19	128.6	23	nr	nr	5,298	1.78	3.1	52.9	11.2	6.84	60	150		
10-Feb-19	125.2	27	nr	nr	5,284	1.55	3.0	53.1	13.0	6.81	20	30		
11-Feb-19	132.1	20	nr	nr	5,167	1.34	2.9	53.1	13.1	6.77	50	50		
12-Feb-19	135.1	28	nr	nr	5,390	1.19	2.8	53.2	13.3	6.91	110	170		
13-Feb-19	138.7	23	nr	nr	5,741	1.28	2.7	53.4	12.9	6.82	2,610	2,480		
14-Feb-19	136.7	29	nr	nr	5,783	1.53	2.7	53.5	12.7	6.87	1,870	1,920		
15-Feb-19	137.5	32	23	19	5,678	1.66	2.6	53.5	12.7	6.77	2,140	2,140		
16-Feb-19	133.6	33	nr	nr	5,144	1.21	2.6	53.4	13.1	6.79	3,870	2,380		
17-Feb-19	129.5	30	nr	nr	5,192	1.29	2.6	53.3	12.6	6.79	3,450	2,490		
18-Feb-19	127.2	32	nr	nr	4,769	1.29	2.5	53.1	12.4	6.79	90	120		
19-Feb-19	131.2	27	nr	nr	4,763	0.90	2.5	52.9	12.5	6.89	40	100		
20-Feb-19	129.4	29	14	14	4,489	0.91	2.5	52.7	12.5	6.80	140	190		
21-Feb-19	134.3	27	19	13	5,210	1.15	2.5	52.6	12.8	6.87	250	330		
22-Feb-19	133.4	25	12	12	5,163	1.15	2.4	52.7	12.9	6.75	160	100		
23-Feb-19	141.7	23	nr	nr	5,372	1.51	2.4	52.6	14.1	6.68	60	180		
24-Feb-19	138.6	23	nr	nr	4,921	1.33	2.4	52.4	12.1	6.87	40	50		
25-Feb-19	132.1	24	nr	nr	4,598	0.93	2.4	52.1	12.0	6.73	140	150		
26-Feb-19	135.9	21	18	12	5,041	1.28	2.3	51.9	11.6	6.86	80	100		
27-Feb-19	150.5	25	20	13	5,809	1.62	2.4	51.8	11.8	6.88	30	30		
28-Feb-19	128.9	17	14	9	4,719	1.22	2.3	51.6	12.5	6.80	10	10		
Max:	150.5													
Min:	125.2													
Average:	132.8	24	17	13	5,175	1.41			12.6	6.81				
Total Flow:	3717.1													
Geo.Mean:											136	159		

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