

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
December 2017**

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-Dec-17	129.0	10	10	4	4,540	2.85	4.4	45.8	16.9	6.65	210	150		
2-Dec-17	133.0	9	11	3	4,455	2.81	4.3	45.8	17.3	6.77	50	90		
3-Dec-17	126.6	9	11	6	4,138	2.88	4.2	45.7	16.7	6.71	60	70		
4-Dec-17	128.7	9	12	5	4,157	2.59	4.1	45.6	16.5	6.68	40	60		
5-Dec-17	135.0	10	10	5	4,481	2.70	4.0	45.5	15.9	6.78	40	90		
6-Dec-17	129.3	10	13	3	4,721	2.89	4.0	45.7	15.5	6.86	80	110		
7-Dec-17	125.9	9	13	6	4,393	2.75	3.9	45.7	15.9	6.82	30	90		
8-Dec-17	129.4	10	nr	nr	5,007	2.61	3.8	45.8	15.7	6.75	160	190		
9-Dec-17	126.9	10	12	4	5,214	2.75	3.7	46.0	16.2	6.82	120	120		
10-Dec-17	127.8	10	16	5	5,022	2.66	3.6	46.1	16.5	6.77	30	160		
11-Dec-17	128.1	7	nr	nr	4,201	2.35	3.5	46.0	16.2	6.74	110	200		
12-Dec-17	127.5	14	14	8	4,309	2.47	3.4	45.8	15.7	6.76	190	200		
13-Dec-17	130.2	14	13	6	4,790	2.55	3.3	46.0	16.1	6.70	440	720		
14-Dec-17	134.7	12	14	6	5,012	2.74	3.2	46.0	16.2	6.80	110	270		
15-Dec-17	129.8	11	14	7	4,842	2.91	3.2	46.1	16.3	6.74	60	120		
16-Dec-17	123.4	11	16	7	4,504	2.72	3.1	45.9	16.1	6.72	190	320		
17-Dec-17	128.1	10	19	8	4,356	2.24	3.0	45.5	16.4	6.73	180	640		
18-Dec-17	128.7	10	nr	nr	4,248	2.08	2.9	45.1	16.3	6.68	50	100		
19-Dec-17	129.9	8	13	6	4,819	2.44	3.0	44.8	15.7	6.72	100	nr		
20-Dec-17	131.2	11	15	7	5,194	2.89	3.0	44.9	15.9	6.81	20	90		
21-Dec-17	129.7	12	19	8	5,058	2.76	3.0	45.1	15.8	6.78	20	30		
22-Dec-17	126.7	14	17	9	4,396	2.77	3.0	45.0	15.5	6.86	<10	40		
23-Dec-17	124.0	12	15	9	4,192	2.80	3.0	44.9	15.5	6.72	10	10		
24-Dec-17	128.2	12	17	8	3,960	2.03	3.0	44.7	15.1	6.70	<10	10		
25-Dec-17	107.6	12	13	8	3,475	2.02	3.0	44.7	15.5	6.74	70	20		
26-Dec-17	116.7	10	16	8	4,200	2.10	3.0	44.9	14.8	6.72	10	<10		
27-Dec-17	125.1	11	18	10	4,329	2.15	3.0	45.2	14.5	6.82	10	10		
28-Dec-17	123.4	14	17	10	4,232	2.02	3.0	45.6	14.8	6.73	10	20		
29-Dec-17	131.8	13	17	10	4,929	1.90	3.0	45.8	14.0	6.79	nr	10		
30-Dec-17	122.5	14	16	10	5,082	1.71	3.0	46.0	13.7	6.73	10	30		
31-Dec-17	120.6	14	18	10	4,243	1.80	2.9	46.0	14.5	6.73	10	10		
Max:	135.0													
Min:	107.6													
Average:	127.1	11	15	7	4,532	2.48			15.7	6.75				
Total Flow:	3939.1													
Geo.Mean:											43	65		

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