

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
November 2018**

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-Nov-18	146.9	9	11	6	3,936	3.16	4.4	37.5	16.2	6.78	20	80		
2-Nov-18	161.4	10	16	6	4,631	3.61	4.4	37.5	16.3	6.76	20	20		
3-Nov-18	143.0	10	15	6	3,689	3.34	4.4	37.5	16.1	6.74	<10	10		
4-Nov-18	145.8	11	16	6	4,023	3.59	4.5	37.8	16.3	6.67	90	90		
5-Nov-18	142.6	14	14	6	3,921	4.07	4.5	38.2	16.3	6.83	10	10		
6-Nov-18	143.0	11	18	7	4,132	3.97	4.6	38.4	16.2	6.90	20	30		
7-Nov-18	140.2	11	14	6	4,556	3.87	4.6	38.5	16.3	6.89	<10	<10		
8-Nov-18	142.8	12	20	7	4,927	4.30	4.6	38.6	16.1	6.81	20	80		
9-Nov-18	134.8	11	29	7	4,921	4.40	4.7	38.6	16.0	6.82	<10	30		
10-Nov-18	132.4	12	17	7	4,781	4.62	4.7	38.9	16.5	6.78	<10	20		
11-Nov-18	127.8	11	17	6	4,640	4.71	4.7	39.2	16.0	6.76	10	<10		
12-Nov-18	128.9	13	16	6	4,678	5.00	4.7	39.7	16.2	6.74	10	<10		
13-Nov-18	134.3	13	14	5	4,258	4.69	4.8	40.1	15.6	6.78	<10	10		
14-Nov-18	135.6	12	18	7	4,609	4.50	4.8	40.4	15.7	6.80	<10	<10		
15-Nov-18	134.7	12	18	8	4,673	4.63	4.9	40.6	16.0	6.83	20	10		
16-Nov-18	132.8	11	20	8	4,647	4.69	4.9	40.9	15.9	6.81	30	30		
17-Nov-18	135.3	13	16	6	4,723	4.57	4.9	41.1	15.9	6.69	60	50		
18-Nov-18	135.6	13	20	8	4,598	4.23	4.9	41.4	15.5	6.71	<10	40		
19-Nov-18	134.7	14	17	7	4,391	4.09	4.9	41.6	15.0	6.78	30	30		
20-Nov-18	135.3	15	17	7	4,423	4.48	4.9	41.8	14.7	6.82	<10	<10		
21-Nov-18	135.3	16	19	8	4,464	4.11	4.9	42.2	15.0	6.77	<10	<10		
22-Nov-18	136.9	14	20	7	4,710	4.17	4.9	42.4	15.1	6.84	50	10		
23-Nov-18	129.2	15	26	8	4,820	4.40	4.9	42.7	15.6	6.80	50	30		
24-Nov-18	133.7	17	21	9	5,053	4.86	4.9	42.9	15.9	6.75	100	150		
25-Nov-18	134.7	19	19	8	5,104	5.36	4.9	43.1	15.5	6.71	110	160		
26-Nov-18	126.5	18	15	7	4,680	4.49	4.9	43.5	14.9	6.73	90	100		
27-Nov-18	140.1	23	13	7	5,700	4.69	4.9	43.7	14.9	6.79	120	130		
28-Nov-18	135.0	20	15	7	5,211	4.10	4.9	43.9	15.1	6.70	540	240		
29-Nov-18	134.0	18	14	7	5,133	4.60	4.9	44.8	15.3	6.77	60	170		
30-Nov-18	136.1	17	16	7	5,417	4.43	5.0	45.3	15.5	6.67	80	90		
Max:	161.4													
Min:	126.5													
Average:	137.0	14	17	7	4,648	4.32			15.7	6.77				
Total Flow:	4109.1													
Geo.Mean:											22	28		

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