

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
October 2015**

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-Oct-15	160.3	10	nr	6	2,789	3.84	3.3	26	20	6.71	150	150		
2-Oct-15	145.6	6	16	6	2,825	4.23	3.4	26	20	6.71	240	240		
3-Oct-15	136.6	11	16	6	3,373	4.67	3.4	26	19	6.93	74	43		
4-Oct-15	136.0	11	19	6	2,883	4.54	3.5	27	19	6.86	930	930		
5-Oct-15	158.6	11	21	7	3,458	4.02	3.7	28	19	6.75	43	43		
6-Oct-15	142.7	8	19	7	2,711	4.15	3.8	29	20	6.76	23	23		
7-Oct-15	213.8	42	54	25	4,468	4.04	4.0	29	19	6.72	23	23		
8-Oct-15	221.2	8	38	6	2,256	2.10	3.9	29	nr	6.79	240	93		
9-Oct-15	151.7	8	12	4	2,563	3.56	4.0	30	18	6.71	430	430		
10-Oct-15	143.3	14	32	6	2,493	4.37	4.1	30	19	6.88	930	930		
11-Oct-15	147.9	24	26	13	2,351	3.78	4.2	30	19	6.85	240	240		
12-Oct-15	365.6	41	34	22	2,661	1.46	4.2	30	17	6.76	(>110,000)	(>110,000)		
13-Oct-15	170.3	9	15	5	1,839	2.01	4.2	30	16	6.73	150	150		
14-Oct-15	154.1	8	13	6	2,327	2.99	4.2	30	18	6.77	23	9		
15-Oct-15	148.6	9	14	6	2,704	3.69	4.3	31	18	6.82	240	23		
16-Oct-15	145.6	11	15	6	2,853	3.98	4.3	31	18	6.74	240	240		
17-Oct-15	135.4	23	57	7	2,545	4.17	4.3	31	18	6.71	43	4		
18-Oct-15	143.2	14	24	19	2,778	4.16	4.3	31	18	6.88	4,300	4,300		
19-Oct-15	139.5	14	21	nr	2,678	3.71	4.3	31	18	6.72	150	74		
20-Oct-15	139.4	13	22	6	2,843	4.02	4.3	32	19	6.73	240	240		
21-Oct-15	146.8	16	26	7	2,893	4.10	4.3	32	19	6.74	93	43		
22-Oct-15	140.5	14	29	4	3,076	4.34	4.4	32	19	6.69	93	23		
23-Oct-15	265.4	57	61	35	5,201	3.62	4.4	32	19	6.78	43	43		
24-Oct-15	153.0	10	32	6	2,310	2.74	4.4	32	15	6.78	430	74		
25-Oct-15	140.1	9	18	6	2,873	4.07	4.4	32	18	6.80	240	240		
26-Oct-15	144.8	12	18	6	3,098	4.11	4.4	32	18	6.75	23	23		
27-Oct-15	151.3	24	19	8	3,768	4.67	4.4	32	18	6.78	74	43		
28-Oct-15	180.7	20	13	6	4,083	3.87	4.4	32	18	6.92	43	23		
29-Oct-15	156.1	14	14	7	3,731	4.03	4.4	32	18	6.90	93	93		
30-Oct-15	150.1	17	11	5	3,693	4.64	4.4	32	18	6.81	74	74		
31-Oct-15	153.8	21	13	7	3,921	4.45	4.4	33	18	6.80	23	23		
Max:	365.6													
Min:	135.4													
Average:	163.9	16	24	9	3,034	3.81			18	6.78				
Total Flow:	5081.6													
Geo.Mean:											125	81		

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.
- (8) Total Nitrogen results are calculated from TKN and nitrate values