

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
October 2016**

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-16	128.4	16	27	7	2,889	5.28	4.8	34.2	20.4	6.65	23	23		
2-Oct-16	131.8	17	24	6	2,782	5.00	4.8	34.6	20.3	6.60	23	9		
3-Oct-16	135.0	18	25	6	2,700	5.03	4.8	34.7	18.2	6.51	43	43		
4-Oct-16	199.5	54	67	31	3,791	4.38	4.9	35.2	20.2	6.55	140	20		
5-Oct-16	288.6	10	20	8	2,179	1.58	4.9	35.0	18.3	6.67	150	43		
6-Oct-16	157.1	10	13	6	2,325	2.64	4.9	35.3	18.8	6.57	43	43		
7-Oct-16	209.1	16	15	8	4,203	3.46	4.9	35.1	18.2	6.64	150	23		
8-Oct-16	158.2	11	11	5	2,341	2.87	4.9	35.0	16.7	6.50	43	15		
9-Oct-16	139.4	14	15	5	2,383	4.00	5.0	34.8	18.2	6.67	93	43		
10-Oct-16	137.8	8	9	4	2,563	4.62	5.0	34.5	18.2	6.64	9	4		
11-Oct-16	142.7	10	14	6	2,897	4.17	5.0	34.3	18.5	6.55	23	9		
12-Oct-16	148.6	16	17	6	3,581	4.60	5.0	34.3	18.7	6.64	43	23		
13-Oct-16	141.1	12	20	8	3,316	4.44	5.0	34.2	18.3	6.72	43	23		
14-Oct-16	141.2	8	14	7	2,994	4.56	5.0	34.3	17.9	6.58	93	15		
15-Oct-16	138.9	12	17	7	2,973	4.91	5.1	34.3	18.9	6.63	240	93		
16-Oct-16	185.9	53	43	23	3,867	4.50	5.0	34.4	19.1	6.60	150	150		
17-Oct-16	214.7	10	18	7	2,405	2.50	5.0	33.9	15.7	6.67	93	43		
18-Oct-16	146.9	19	8	6	2,600	4.01	5.0	33.7	18.1	7.16	240	93		
19-Oct-16	140.6	10	9	5	3,206	4.73	5.0	33.8	18.6	6.66	93	43		
20-Oct-16	140.4	12	8	5	3,356	4.75	5.0	34.0	18.8	6.79	23	9		
21-Oct-16	148.3	12	9	6	3,692	4.82	5.0	34.2	18.9	6.66	43	9		
22-Oct-16	139.7	63	52	25	2,850	3.87	4.9	33.9	18.5	6.55	430	240		
23-Oct-16	388.7	27	23	11	2,896	1.21	4.8	33.1	13.1	6.75	(93)	(93)		
24-Oct-16	175.0	7	nr	3	2,222	2.07	4.7	32.9	16.4	6.56	93	15		
25-Oct-16	160.5	6	6	4	3,163	3.42	4.7	33.6	17.9	6.90	7	7		
26-Oct-16	210.6	14	13	8	4,170	3.26	4.7	33.7	17.9	6.85	240	240		
27-Oct-16	162.5	6	8	4	2,942	3.20	4.7	33.4	17.8	6.85	43	9		
28-Oct-16	158.5	14	13	6	3,155	3.53	4.6	33.2	18.4	6.66	15	9		
29-Oct-16	150.1	10	12	6	3,272	3.96	4.6	32.9	18.3	6.70	430	430		
30-Oct-16	147.9	10	14	5	3,253	3.93	4.5	32.8	18.2	6.60	93	43		
31-Oct-16	320.6	66	61	31	4,520	2.47	4.4	32.2	17.6	6.65	(>110,000)	(>110,000)		
Max:	388.7													
Min:	128.4													
Average:	173.8	18	20	9	3,080	3.80			18	6.67				
Total Flow:	5388.2													
Geo.Mean:											66	29		

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