

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

Licence 2684 RRR	File # 1071.10	Final Effluent 24 Hour Composite							Final Effluent Grab Sample			
		TSS	BOD5	cBOD5	Ammonia	Ortho Phosphorus	Total Phosphorus	Total Nitrogen	Temp.	pH	Fecal Coliform	E.Coli
1-Mar-16	133.5	14	39	9	4,779	1.90	2.7	41.1	14.1	6.69	240	240
2-Mar-16	130.4	13	45	10	4,485	1.90	2.7	41.3	14.2	6.74	300	93
3-Mar-16	129.9	17	50	10	4,288	1.92	2.7	41.3	14.2	6.85	4,300	4,300
4-Mar-16	121.5	14	31	8	3,816	1.94	2.7	41.4	14.3	6.78	430	150
5-Mar-16	120.9	18	25	11	3,822	1.64	2.7	41.4	14.1	6.80	430	240
6-Mar-16	196.4	33	33	24	5,871	0.53	2.7	41.4	14.5	6.76	240	240
7-Mar-16	276.9	51	33	22	4,735	0.35	2.6	40.9	12.0	6.78	43	23
8-Mar-16	303.1	19	25	11	3,880	0.37	2.5	40.1	8.9	6.99	93	93
9-Mar-16	158.5	10	18	7	3,012	1.29	2.4	39.6	10.3	6.85	240	240
10-Mar-16	152.9	14	21	9	3,960	1.35	2.4	39.2	12.5	6.81	430	430
11-Mar-16	349.3	87	nr	nr	5,555	0.99	2.3	38.7	11.8	6.83	(>110,000)	(>110,000)
12-Mar-16	339.2	55	31	20	3,663	0.75	2.3	37.9	9.0	6.95	(430)	(240)
13-Mar-16	339.3	45	25	19	3,562	0.83	2.3	37.1	9.2	6.85	(110,000)	(110,000)
14-Mar-16	312.7	35	23	16	3,971	1.09	2.2	36.3	9.0	6.98	930	930
15-Mar-16	474.2	129	48	34	3,282	0.66	2.2	35.3	8.2	7.09	(>110,000)	(>110,000)
16-Mar-16	415.6	33	nr	nr	3,570	0.62	2.1	34.4	8.1	7.15	(430)	(150)
17-Mar-16	364.9	41	25	14	3,977	1.07	2.1	33.5	8.8	7.08	240	93
18-Mar-16	316.2	33	19	11	3,668	1.14	2.1	32.8	8.9	7.10	240	43
19-Mar-16	270.4	26	14	9	3,515	1.19	2.0	32.0	9.1	7.09	240	93
20-Mar-16	242.5	20	16	7	3,517	1.48	2.0	31.3	9.9	7.02	430	430
21-Mar-16	238.7	19	18	7	3,747	1.64	2.0	30.8	10.1	6.98	240	240
22-Mar-16	218.3	14	23	6	4,039	1.80	2.0	30.4	10.5	7.04	110	110
23-Mar-16	205.0	9	25	6	4,818	1.96	2.0	30.0	10.8	7.04	240	93
24-Mar-16	190.8	12	nr	nr	4,712	2.21	2.0	29.6	11.7	7.04	430	430
25-Mar-16	200.1	14	16	7	4,703	2.03	2.0	29.2	11.5	7.04	150	74
26-Mar-16	170.7	10	11	5	4,045	1.92	2.0	28.7	11.4	7.09	240	93
27-Mar-16	168.3	10	13	6	3,972	2.14	2.0	28.6	12.1	6.94	93	93
28-Mar-16	173.3	12	14	6	4,159	2.29	2.0	28.1	11.9	6.80	150	93
29-Mar-16	180.5	10	17	7	4,440	2.49	2.0	27.7	12.3	6.93	150	150
30-Mar-16	187.8	10	17	7	4,339	2.34	2.0	27.0	12.5	6.90	43	43
31-Mar-16	188.6	11	16	7	4,791	2.34	2.0	26.5	12.5	7.03	210	210
Max:	474.2											
Min:	120.9											
Average:	234.5	27	25	11	4,151	1.49			11.2	6.94		
Total Flow:	7270.6											
Geo.Mean:											237	161

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