

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
July 2014**

Licence 2684 RRR	Raw Sewage	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-Jul-14	486.7	17	12	9	2,915	0.93	2.3	22	16	7.32	(>110000)	(110000)
2-Jul-14	368.8	9	7	6	3,456	1.40	2.3	21	16	7.19	430	43
3-Jul-14	313.2	5	10	5	3,790	1.56	2.2	21	16	7.18	430	230
4-Jul-14	281.6	8	14	5	3,717	1.56	2.2	20	17	7.81	230	43
5-Jul-14	248.2	8	14	5	3,599	1.74	2.1	20	16	7.08	230	43
6-Jul-14	240.4	8	11	4	3,725	1.94	2.1	20	17	7.13	230	230
7-Jul-14	243.6	5	12	5	4,215	2.25	2.1	20	17	7.12	93	15
8-Jul-14	237.2	6	11	5	4,530	2.55	2.1	20	17	6.96	430	7
9-Jul-14	226.6	8	13	4	4,056	2.57	2.1	19	18	7.06	150	43
10-Jul-14	218.6	8	11	5	3,979	2.55	2.0	19	18	6.97	43	23
11-Jul-14	207.8	6	10	4	3,533	2.78	2.0	19	18	6.92	43	9
12-Jul-14	245.2	24	16	12	3,874	1.29	1.9	19	18	6.97	430	150
13-Jul-14	297.2	16	10	9	3,477	1.29	1.9	18	17	6.93	4,300	4,300
14-Jul-14	200.9	7	9	5	2,893	1.58	1.9	18	17	6.96	93	93
15-Jul-14	199.0	4	10	5	3,622	2.43	1.9	19	18	7.12	930	23
16-Jul-14	193.0	4	10	5	3,744	2.73	1.9	19	18	6.84	2,300	2,300
17-Jul-14	195.4	7	10	5	4,063	2.56	2.0	20	18	6.93	23	9
18-Jul-14	262.7	30	28	23	3,835	2.05	2.0	20	18	6.89	43	23
19-Jul-14	311.1	11	10	5	3,329	1.39	2.0	20	20	6.80	75	75
20-Jul-14	176.8	11	11	6	2,528	2.12	2.0	20	20	6.96	230	93
21-Jul-14	206.5	5	19	12	3,449	2.59	2.1	20	18	6.92	43	9
22-Jul-14	216.1	11	10	6	3,004	2.12	2.1	21	19	6.84	430	150
23-Jul-14	176.1	14	11	7	3,205	2.48	2.1	21	19	6.90	110	110
24-Jul-14	169.7	14	11	8	3,225	2.65	2.2	21	19	6.78	43	43
25-Jul-14	171.0	11	12	7	3,334	2.41	2.2	22	19	6.92	430	150
26-Jul-14	163.9	11	12	7	3,245	2.44	2.2	22	19	6.87	430	430
27-Jul-14	158.9	9	12	6	2,987	1.85	2.2	23	18	6.78	43	23
28-Jul-14	165.7	8	12	6	3,148	2.20	2.3	23	18	6.87	43	43
29-Jul-14	166.8	9	16	6	3,987	2.09	2.3	24	19	6.77	43	43
30-Jul-14	167.1	9	13	6	3,492	1.77	2.3	25	19	6.77	430	230
31-Jul-14	168.7	8	14	6	3,492	2.38	2.4	25	19	6.78	2,300	290
Max:	486.7											
Min:	158.9											
Average:	228.5	10	12	7	3,531	2.07			18	6.98		
Total Flow:	7084.5											
Geo.Mean:											189	70

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