

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
August 2013**

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-Aug-13	151.5	7	nr	nr	3,182	2.63	3.7	29	19	6.70	150	43
2-Aug-13	145.2	9	nr	nr	2,774	2.57	3.7	29	19	6.83	93	93
3-Aug-13	128.2	18	23	8	2,372	2.61	3.7	29	19	6.95	2,300	2,300
4-Aug-13	168.2	20	52	28	2,809	2.06	3.6	29	19	6.90	430	430
5-Aug-13	157.3	7	34	11	1,604	1.26	3.5	28	18	6.90	430	430
6-Aug-13	143.1	14	37	13	2,175	1.70	3.5	28	19	6.74	23	23
7-Aug-13	138.7	13	24	6	2,815	2.04	3.4	28	20	6.95	9,300	9,300
8-Aug-13	145.6	17	16	9	3,712	2.08	3.4	29	19	6.91	430	230
9-Aug-13	142.5	18	14	9	3,421	1.84	3.3	29	19	6.92	430	120
10-Aug-13	141.7	9	16	11	3,074	1.77	3.3	29	20	6.95	930	430
11-Aug-13	153.6	17	13	8	2,566	1.39	3.2	28	19	6.91	930	210
12-Aug-13	136.4	20	15	9	2,592	2.35	3.1	28	19	6.77	93	21
13-Aug-13	141.8	17	18	10	3,092	3.15	3.1	28	19	6.88	93	93
14-Aug-13	144.4	18	16	9	3,061	3.26	3.1	28	20	7.05	24,000	9,300
15-Aug-13	139.0	16	15	10	3,224	3.69	3.1	28	19	6.88	93	43
16-Aug-13	139.4	23	17	9	3,095	3.75	3.1	28	20	6.84	43	43
17-Aug-13	127.6	23	17	10	2,681	3.45	3.1	28	20	6.92	2,300	2,300
18-Aug-13	297.2	55	22	26	3,328	1.86	3.1	28	20	6.92	2,300	430
19-Aug-13	197.6	14	12	7	1,876	1.22	3.0	28	20	6.67	230	43
20-Aug-13	173.0	14	13	7	2,422	2.39	3.0	28	20	6.83	9	9
21-Aug-13	161.1	15	13	8	2,883	2.85	3.1	28	20	6.93	43	43
22-Aug-13	155.0	14	14	7	2,946	2.79	3.1	28	20	6.91	43	<3
23-Aug-13	146.3	19	14	7	2,151	2.47	3.2	28	20	6.93	43	15
24-Aug-13	145.0	15	16	7	2,131	2.41	3.3	29	20	6.79	23	23
25-Aug-13	138.1	18	14	7	1,878	2.32	3.3	29	20	6.83	150	75
26-Aug-13	149.0	17	16	7	2,056	2.71	3.3	29	20	6.94	2,300	2,300
27-Aug-13	152.6	14	14	7	2,304	2.51	3.3	29	20	6.78	93	43
28-Aug-13	152.9	15	16	8	2,568	2.62	3.3	29	21	6.75	430	150
29-Aug-13	149.9	25	17	8	2,428	2.30	3.4	29	21	6.88	43	23
30-Aug-13	149.5	18	16	7	3,154	3.08	3.4	29	21	6.79	93	93
31-Aug-13	139.7	19	15	8	2,835	2.86	3.4	29	21	6.88	23	23
Max:	297.2											
Min:	127.6											
Average:	153.3	17	19	10	2,684	2.45			20	6.87		
Total Flow:	4751.1											
Geo.Mean:											220	117

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