

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
July 2012**

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-12	144.6	12	18	6	3,586	3.26	2.8	27	19	6.85	23	23
2-Jul-12	148.9	14	26	6	3,574	3.19	2.8	27	19	6.92	9	<3
3-Jul-12	152.6	14	26	8	3,709	3.27	2.9	27	19	6.81	23	4
4-Jul-12	204.2	17	32	10	4,675	2.94	2.9	27	19	6.93	9	9
5-Jul-12	157.2	14	26	8	3,647	2.82	2.9	28	19	6.87	230	230
6-Jul-12	153.1	15	24	8	3,967	3.10	2.9	28	19	6.88	23	23
7-Jul-12	140.4	16	24	11	3,622	3.46	2.9	28	20	6.84	93	21
8-Jul-12	140.1	15	26	8	3,810	3.72	2.9	28	20	6.84	430	430
9-Jul-12	150.3	14	28	9	3,636	3.13	3.0	29	19	6.76	93	15
10-Jul-12	149.6	14	24	8	3,350	3.18	3.0	29	19	6.83	230	7
11-Jul-12	150.8	14	23	8	3,649	3.41	3.1	30	20	6.78	23	9
12-Jul-12	161.8	12	24	6	4,141	3.14	3.2	30	20	6.79	15	4
13-Jul-12	153.9	8	10	7	3,847	3.20	3.2	31	20	6.79	4	4
14-Jul-12	141.5	8	27	7	3,254	3.37	3.3	31	20	6.93	21	7
15-Jul-12	225.2	19	25	<3	4,235	2.74	3.3	31	19	6.86	15	11
16-Jul-12	208.9	8	28	6	2,632	2.05	3.3	31	19	6.77	750	150
17-Jul-12	158.2	12	25	7	4,002	3.48	3.4	31	20	6.82	230	43
18-Jul-12	149.5	15	26	10	4,008	3.48	3.5	32	20	6.85	380	93
19-Jul-12	149.3	14	27	9	3,882	3.53	3.6	32	20	6.78	4	<3
20-Jul-12	185.3	12	23	7	3,484	2.89	3.6	32	20	6.84	43	23
21-Jul-12	138.8	9	19	7	3,233	3.45	3.6	32	21	6.74	23	4
22-Jul-12	132.0	9	23	5	3,273	3.89	3.7	32	20	6.83	93	43
23-Jul-12	142.5	10	21	6	3,463	3.69	3.7	32	20	6.72	43	23
24-Jul-12	142.5	10	26	7	3,264	3.66	3.7	32	20	6.75	230	210
25-Jul-12	146.6	11	28	7	3,622	3.51	3.7	32	21	6.74	43	43
26-Jul-12	150.7	10	23	6	3,934	3.56	3.8	32	21	6.80	93	43
27-Jul-12	150.9	10	18	7	3,984	3.88	3.8	33	21	6.79	23	9
28-Jul-12	138.5	12	17	6	3,824	4.18	3.8	33	21	6.82	43	43
29-Jul-12	180.6	18	nr	nr	4,497	4.04	3.9	33	20	6.72	73	20
30-Jul-12	169.1	14	22	11	3,027	2.92	3.9	33	21	6.66	930	430
31-Jul-12	157.1	10	18	6	4,101	3.67	3.9	33	21	6.75	230	93
Max:	225.2											
Min:	132.0											
Average:	157.3	13	24	7	3,708	3.35			20	6.81		
Total Flow:	4874.8											
Geo.Mean:											56	22

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