

**City of Winnipeg**  
**Water and Waste Department**  
**North End Water Pollution Control Centre Monitoring Data**  
**August 2008**

Date	Raw Sewage	Final Effluent 24 Hour Composite										Final Effluent Grab Sample			
	Daily Flow	TSS	BOD5	cBOD5	Ammonia		Ortho Phosphorus	Total Phosphorus		Total Nitrogen		Temp.	pH	Fecal Coliform	E.Coli
	ML**	(mg/L)	(mg/L)	(mg/L)	(mg/L-N)	(kg NH3-N/day)	(mg/L-P)	(mg/L-P)	(mg/L-P)*	(mg/L-N)	(mg/L-N)*	(°C)	(units)	MPN/100 mL	
1-Aug-08	166.1	8	33	4	17	2,824	3.23	3.9	3.4	34	25	19.0	6.64	30	13
2-Aug-08	152.5	9	34	3	17	2,577	3.68	4.1	3.4	33	25	18.0	6.75	50	23
3-Aug-08	143.5	9	42	3	16	2,339	3.74	4.5	3.4	36	26	19.0	6.72	30	30
4-Aug-08	148.8	9	35	4	17	2,500	3.79	4.4	3.5	37	26	19.0	6.86	30	11
5-Aug-08	162.4	12	35	4	17	2,745	3.57	4.2	3.5	36	27	19.0	6.67	<2	<2
6-Aug-08	166.0	15	40	5	18	2,988	3.64	4.0	3.5	36	27	19.8	7.37	90	70
7-Aug-08	160.5	11	38	5	20	3,146	3.85	4.7	3.6	37	28	19.2	7.50	130	27
8-Aug-08	160.4	8	41	5	21	3,384	3.79	4.2	3.6	37	28	20.0	6.70	14	14
9-Aug-08	147.4	8	54	5	21	3,095	3.81	4.4	3.6	38	29	20.0	6.58	110	110
10-Aug-08	144.6	10	50	5	21	2,964	3.85	4.3	3.7	40	29	16.0	6.96	80	22
11-Aug-08	249.4	44	55	23	15	3,666	2.19	3.1	3.7	25	30	19.5	6.68	80	14
12-Aug-08	<b>591.6</b>	29	32	11	4	2,207	0.45	1.1	3.7	13	29	19.3	6.82	(80,000)	(50,000)
13-Aug-08	285.6	7	22	4	8	2,273	1.02	1.1	3.6	20	29	18.7	7.23	110	50
14-Aug-08	211.4	9	30	3	13	2,748	2.14	2.4	3.6	27	30	19.5	6.80	17	4
15-Aug-08	185.6	7	30	4	14	2,654	2.54	2.8	3.6	29	30	19.6	7.03	50	11
16-Aug-08	161.9	9	27	4	14	2,218	2.75	3.1	3.6	30	30	19.9	6.77	11	11
17-Aug-08	160.5	9	40	3	13	2,151	3.09	3.4	3.5	27	30	20.1	6.81	30	8
18-Aug-08	170.9	10	35	3	13	2,273	3.29	3.5	3.5	28	30	21.3	6.75	50	14
19-Aug-08	169.6	4	31	4	15	2,459	3.23	3.6	3.5	29	30	20.1	6.68	23	13
20-Aug-08	166.9	8	35	6	15	2,487	3.01	2.7	3.5	30	30	21.4	6.68	50	11
21-Aug-08	229.3	31	53	17	12	2,729	1.99	2.9	3.5	22	30	21.7	6.83	80	14
22-Aug-08	<b>542.5</b>	27	24	8	4	2,029	0.52	0.9	3.4	12	29	21.2	6.84	(30,000)	(17,000)
23-Aug-08	277.3	6	16	3	7	1,936	1.25	1.4	3.3	19	29	21.8	7.03	7	7
24-Aug-08	206.8	8	nr	nr	10	1,967	2.24	2.3	3.3	23	28	24.8	6.95	7	4
25-Aug-08	204.3	6	24	3	10	2,104	2.65	3.1	3.2	23	28	23.3	6.87	9	9
26-Aug-08	197.3	8	24	3	11	2,072	2.62	3.2	3.2	26	28	19.6	6.75	170	110
27-Aug-08	213.1	7	29	3	10	2,069	2.38	2.8	3.2	27	28	19.6	6.83	50	17
28-Aug-08	183.6	9	31	4	12	2,222	2.97	3.3	3.2	33	28	18.9	6.68	3,000	1,100
29-Aug-08	184.8	9	29	5	12	2,255	3.17	3.6	3.2	30	28	19.6	6.66	2,400	500
30-Aug-08	162.4	6	30	4	10	1,640	3.08	3.3	3.2	28	29	19.4	6.87	700	170
31-Aug-08	154.3	6	26	3	10	1,521	3.33	3.7	3.2	29	29	19.3	6.80	1,100	170
<b>Max:</b>	592														
<b>Min:</b>	144														
<b>Average:</b>	<b>208</b>	<b>12</b>	<b>34</b>	<b>5</b>	<b>13</b>	<b>2,459</b>	<b>2.80</b>	<b>3.2</b>		<b>29</b>		<b>19.9</b>	<b>6.84</b>		
<b>Geo.Mean:</b>														<b>56</b>	<b>23</b>

**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 2684RR.
- (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.