

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

October 2010

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-Oct-10	240.0	6	19	3	6	1,555	2.68	3.1	2.4	19	15	18	6.76	4,300	4,300
2-Oct-10	207.0	6	<10	2	6	1,186	2.87	3.3	2.5	20	16	18	6.82	23	23
3-Oct-10	212.1	6	<10	2	5	1,147	3.12	3.5	2.5	20	16	18	6.83	230	9
4-Oct-10	211.4	7	18	4	6	1,180	3.01	3.3	2.6	21	16	18	6.73	93	21
5-Oct-10	207.6	9	14	3	7	1,486	3.22	3.7	2.7	23	16	18	6.83	230	230
6-Oct-10	199.5	9	14	3	10	1,909	3.79	4.3	2.7	26	17	19	6.75	23	4
7-Oct-10	195.3	12	18	3	9	1,767	3.22	3.6	2.8	25	17	19	6.69	930	930
8-Oct-10	187.1	7	13	3	8	1,444	3.21	3.5	2.8	23	17	19	6.68	230	93
9-Oct-10	174.5	6	12	3	9	1,590	3.25	3.8	2.8	25	17	19	6.79	93	43
10-Oct-10	166.5	7	11	4	9	1,437	3.34	3.8	2.9	25	18	19	6.75	93	93
11-Oct-10	169.4	9	12	4	10	1,711	3.49	3.9	3.0	27	18	19	6.82	23	23
12-Oct-10	176.5	8	12	4	12	2,047	3.97	4.5	3.1	25	19	19	6.80	230	93
13-Oct-10	177.7	12	17	5	14	2,452	3.90	4.6	3.1	24	19	19	6.68	93	93
14-Oct-10	175.8	9	14	5	14	2,444	3.95	4.6	3.2	28	20	19	6.83	430	430
15-Oct-10	171.0	10	17	4	17	2,975	4.39	4.8	3.3	30	20	17	6.85	93	43
16-Oct-10	166.3	8	23	5	17	2,794	4.44	4.9	3.3	31	21	19	6.79	43	43
17-Oct-10	161.9	18	29	12	18	2,849	4.76	5.4	3.5	32	21	19	6.80	230	230
18-Oct-10	166.9	15	41	14	15	2,520	3.80	4.7	3.5	31	22	19	6.64	230	230
19-Oct-10	171.2	22	26	10	14	2,345	3.62	4.5	3.6	29	22	19	6.74	24,000	24,000
20-Oct-10	168.3	11	23	7	13	2,255	3.62	4.3	3.6	28	22	19	6.69	75	75
21-Oct-10	165.6	15	34	8	16	2,616	3.71	4.3	3.6	28	23	18	6.52	230	230
22-Oct-10	166.0	8	21	4	15	2,424	3.19	3.9	3.7	29	23	19	6.49	43	43
23-Oct-10	159.9	8	20	5	15	2,446	3.25	3.7	3.7	30	24	19	6.87	930	930
24-Oct-10	159.1	15	32	11	16	2,482	3.40	4.2	3.8	29	24	19	6.74	43	43
25-Oct-10	332.0	47	47	16	9	2,862	1.85	2.7	3.8	17	24	16	6.73	430	430
26-Oct-10	<b>657.5</b>	72	53	17	2	1,361	0.55	1.6	3.8	9	24	15	6.69	(110,000)	(24,000)
27-Oct-10	<b>614.0</b>	35	30	8	3	1,566	0.54	1.2	3.8	10	24	13	7.08	(> 110,000)	(> 110,000)
28-Oct-10	372.1	10	21	4	6	2,236	0.97	1.5	3.7	14	24	14	7.19	(46,000)	(46,000)
29-Oct-10	312.2	9	13	3	7	2,054	1.38	1.6	3.7	14	24	15	6.94	930	430
30-Oct-10	290.7	11	14	3	9	2,491	1.46	1.8	3.6	16	24	16	7.05	93	43
31-Oct-10	264.2	8	16	2	8	2,077	1.77	2.2	3.6	17	24	16	7.06	230	93
<b>Max:</b>	658														
<b>Min:</b>	159														
<b>Average:</b>	<b>232</b>	<b>14</b>	<b>21</b>	<b>6</b>	<b>10</b>	<b>2,055</b>	<b>3.02</b>	<b>3.6</b>		<b>23</b>		<b>18</b>	<b>6.79</b>		
<b>Geo.Mean:</b>														<b>189</b>	<b>122</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 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.