

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**December 2007**

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-Dec-07	47.7	7	30	5	29	1,382	4.58	4.9	4.2	32	27	14	6.80	23	23
2-Dec-07	48.3	8	27	5	28	1,353	4.03	4.2	4.2	21	27	15	6.86	230	4
3-Dec-07	47.9	7	30	5	27	1,294	3.86	4.5	4.2	32	27	16	6.64	230	23
4-Dec-07	48.9	8	28	5	29	1,419	4.10	4.4	4.2	28	27	15	6.64	360	36
5-Dec-07	47.1	9	24	5	28	1,319	4.44	4.5	4.3	29	27	12	6.70	230	230
6-Dec-07	46.1	12	26	6	31	1,430	4.98	6.8	4.4	32	27	10	6.93	150	150
7-Dec-07	48.4	6	27	7	29	1,403	3.30	4.4	4.4	29	27	15	6.76	150	74
8-Dec-07	46.9	8	19	7	29	1,361	3.78	4.9	4.4	30	28	14	6.79	230	23
9-Dec-07	49.3	12	22	7	28	1,381	4.08	5.3	4.4	32	28	14	6.84	230	36
10-Dec-07	49.1	9	21	7	27	1,327	4.23	4.4	4.4	26	28	15	6.72	230	230
11-Dec-07	46.8	10	21	4	28	1,311	4.32	3.3	4.4	38	28	15	6.76	92	36
12-Dec-07	47.1	10	22	5	28	1,320	4.65	5.0	4.4	32	28	15	6.64	230	230
13-Dec-07	47.5	10	39	5	29	1,378	5.18	5.6	4.5	30	29	15	6.66	300	300
14-Dec-07	47.7	10	20	4	30	1,430	4.59	3.0	4.5	29	29	15	6.64	36	23
15-Dec-07	49.1	6	28	6	29	1,424	4.04	4.6	4.5	23	29	14	6.70	93	36
16-Dec-07	49.2	8	19	6	28	1,378	3.96	4.9	4.5	36	29	15	6.67	360	23
17-Dec-07	48.2	9	22	4	27	1,300	3.44	2.8	4.4	30	29	15	6.83	150	150
18-Dec-07	47.0	9	19	5	30	1,410	3.44	2.7	4.3	36	29	15	6.76	74	74
19-Dec-07	47.0	8	22	6	30	1,411	3.72	2.9	4.2	33	29	15	6.67	230	92
20-Dec-07	47.6	7	18	5	30	1,427	3.96	2.8	4.1	35	29	15	6.65	92	36
21-Dec-07	47.1	7	13	5	30	1,413	3.87	4.9	4.2	27	29	15	6.66	23	23
22-Dec-07	49.8	8	14	4	29	1,444	3.99	4.4	4.2	25	29	14	6.78	230	7
23-Dec-07	46.6	11	17	6	29	1,352	4.18	4.0	4.2	23	29	14	6.70	230	92
24-Dec-07	50.6	11	20	7	28	1,416	3.76	4.7	4.3	24	29	15	6.71	920	230
25-Dec-07	40.5	9	19	6	30	1,215	3.77	4.3	4.3	23	29	15	6.83	150	36
26-Dec-07	44.2	10	19	5	34	1,502	4.10	3.9	4.3	28	29	15	6.86	230	230
27-Dec-07	47.1	10	24	6	33	1,556	4.16	5.3	4.3	34	29	14	6.70	920	230
28-Dec-07	47.1	9	20	6	31	1,461	3.86	3.3	4.3	25	29	14	6.80	2,300	150
29-Dec-07	45.8	10	21	6	31	1,418	3.98	5.1	4.3	31	29	15	6.80	920	92
30-Dec-07	47.2	10	<10	8	30	1,417	3.80	4.7	4.4	32	29	15	6.70	920	230
31-Dec-07	45.8	7	19	7	29	1,328	3.73	4.7	4.3	21	29	15	6.71	2,300	360
<b>Max:</b>	50.6														
<b>Min:</b>	40.5														
<b>Average:</b>	<b>47.5</b>	<b>9</b>	<b>22</b>	<b>6</b>	<b>29</b>	<b>1,386</b>	<b>4.06</b>	<b>4.4</b>		<b>29</b>		<b>14</b>	<b>6.74</b>		
<b>Geo.Mean:</b>														<b>225</b>	<b>67</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 98.6 ML/D per clause 26 of Licence 2716.

- (6) Bracketed Coliform results not used in the Geometric Mean calculation.
- (7) Raw wastewater flows in excess of 100 ML/D will by-pass the secondary process.
- (8) The results for Total Nitrogen and Phosphorus are lower than normal due to technical difficulties with our analysis. Total Phosphorus and Total Nitrogen results are corrected based on the recovery of a quality control standard