

**City of Winnipeg**  
**Water and Waste Department**  
**West End Water Pollution Control Centre Monitoring Data**  
**December 2009**

Date	Raw Sewage	Final Effluent 24 Hour Composite									Final Effluent Grab Sample			
	Daily Flow	TSS	cBOD5	Ammonia		Ortho Phosphorus	Total Phosphorus		Total Nitrogen		Temp.	pH	Fecal Coliform	E.Coli
	ML	(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-09	21.9	4	<2	5.14	112	0.18	0.3	0.4	nr	8	1	8.02	<2	<2
2-Dec-09	23.5	<4	3	4.92	116	0.19	<0.3	0.4	8	8	2	8.08	2	2
3-Dec-09	22.5	<4	3	5.20	117	0.21	<0.3	0.4	8	8	1	8.07	<2	<2
4-Dec-09	22.5	<4	3	5.59	126	0.23	0.4	0.4	8	8	0	8.04	<2	<2
5-Dec-09	23.0	4	2	nr	nr	nr	0.4	0.4	nr	8	0	8.04	2	2
6-Dec-09	23.6	<4	3	5.21	123	0.20	0.4	0.4	8	8	1	8.04	2	2
7-Dec-09	22.2	4	3	5.21	116	0.20	<0.3	0.4	8	8	0	8.19	2	2
8-Dec-09	21.9	6	3	5.95	130	0.22	0.5	0.4	13	9	0	7.99	2	<2
9-Dec-09	22.0	5	3	5.73	126	0.22	0.4	0.4	12	9	0	8.05	2	<2
10-Dec-09	22.0	<4	na	5.86	129	0.22	0.3	0.3	9	9	0	8.11	2	2
11-Dec-09	21.9	8	na	5.93	130	0.21	0.4	0.4	nr	9	-1	7.98	<2	<2
12-Dec-09	23.0	5	na	6.30	145	0.25	0.4	0.3	8	9	0	7.98	<2	<2
13-Dec-09	23.7	7	na	6.88	163	0.29	0.5	0.3	10	9	-2	8.01	2	<2
14-Dec-09	22.3	5	na	5.39	120	0.23	0.4	0.3	8	9	-2	8.15	<2	<2
15-Dec-09	21.9	4	na	5.68	124	0.24	0.3	0.3	nr	9	nr	8.06	<2	<2
16-Dec-09	22.0	4	na	5.94	131	0.28	0.4	0.3	9	9	-1	7.91	2	2
17-Dec-09	22.1	<4	na	5.25	116	0.22	0.4	0.4	8	9	nr	8.01	<2	<2
18-Dec-09	22.0	5	4	5.72	126	0.27	0.4	0.4	8	9	nr	7.84	<2	<2
19-Dec-09	23.3	5	na	5.34	124	0.23	0.4	0.4	nr	9	nr	7.78	2	<2
20-Dec-09	23.3	4	na	5.18	121	0.22	0.4	0.4	6	9	nr	7.79	<2	<2
21-Dec-09	22.4	4	na	4.99	112	0.21	0.4	0.3	7	9	nr	7.74	4	<2
22-Dec-09	22.2	<4	nr	4.89	109	0.20	<0.3	0.3	8	9	nr	7.71	2	<2
23-Dec-09	22.4	<4	3	4.79	107	0.17	<0.3	0.3	8	9	nr	7.61	4	4
24-Dec-09	23.1	<4	3	4.85	112	0.18	0.3	0.3	10	9	nr	7.62	4	2
25-Dec-09	21.0	<4	3	4.56	96	0.19	<0.3	0.3	9	9	nr	7.57	2	<2
26-Dec-09	22.9	4	<2	4.55	104	0.19	0.3	0.3	12	9	nr	7.50	2	<2
27-Dec-09	21.7	<4	nr	4.19	91	0.21	0.3	0.3	10	9	nr	7.58	2	<2
28-Dec-09	22.0	<4	3	4.42	97	0.20	0.4	0.3	7	9	nr	7.49	<2	<2
29-Dec-09	21.6	<4	3	4.38	95	0.20	<0.3	0.3	nr	9	nr	7.49	2	2
30-Dec-09	21.4	<4	3	4.12	88	0.20	0.4	0.3	7	9	nr	7.49	4	4
31-Dec-09	22.3	<4	3	4.07	91	0.21	0.4	0.3	7	9	nr	7.49	4	2
<b>Max:</b>	23.7													
<b>Min:</b>	21.0													
<b>Average:</b>	<b>22.4</b>	<b>3</b>	<b>3</b>	<b>5.2</b>	<b>117</b>	<b>0.22</b>	<b>0.4</b>		<b>9</b>		<b>0</b>	<b>7.85</b>		
<b>Geo.Mean:</b>													<b>2</b>	<b>1</b>

**Notes:**

(1) \* = 30 day rolling average

(2) Effluent ammonia load based upon Raw Sewage flows and Final Cell NH3-N concentrations

(3) nr - not recorded or no result; na - not analyzed; ns - no sample

(4) Final Effluent flow data unavailable

(5) Where < values are reported 50% of the MDL is used for calculated results

(6) Licence No. 2669 E RR