

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**February 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-Feb-10	46.8	13	22	10	33	1,562	4.10	4.8	4.7	35	35	13	6.53	17	4
2-Feb-10	43.9	15	20	9	34	1,475	4.29	4.8	4.7	35	35	14	6.62	79	49
3-Feb-10	44.5	16	25	9	34	1,521	4.50	5.1	4.8	37	35	14	6.50	140	23
4-Feb-10	43.9	22	29	12	34	1,504	4.61	4.8	4.8	39	35	14	6.48	13	8
5-Feb-10	44.1	17	29	13	35	1,560	4.24	5.2	4.8	40	35	14	6.49	220	110
6-Feb-10	45.3	18	27	13	35	1,563	3.92	5.0	4.8	38	35	15	6.55	2	2
7-Feb-10	45.9	24	27	13	34	1,552	3.91	4.9	4.8	38	36	16	6.64	<2	<2
8-Feb-10	44.3	22	29	12	33	1,445	3.77	4.4	4.8	34	36	14	6.50	26	9
9-Feb-10	43.7	21	27	11	33	1,446	3.90	4.7	4.8	38	36	13	6.55	4	2
10-Feb-10	43.8	11	25	9	34	1,497	4.09	4.9	4.9	38	36	14	6.46	22	14
11-Feb-10	44.4	19	26	10	35	1,536	4.38	5.0	4.9	42	36	12	6.91	17	8
12-Feb-10	43.9	10	24	10	35	1,519	4.37	5.1	4.9	41	36	14	6.61	7	7
13-Feb-10	43.9	17	26	10	35	1,548	4.27	5.0	4.9	41	36	13	6.60	11	11
14-Feb-10	43.0	17	26	10	35	1,504	4.14	4.9	4.9	39	37	13	6.74	<2	<2
15-Feb-10	44.8	22	33	15	34	1,504	4.18	5.2	4.9	39	37	12	6.73	<2	<2
16-Feb-10	44.4	15	32	15	35	1,562	4.31	5.2	4.9	38	37	13	6.54	79	17
17-Feb-10	46.8	23	28	13	34	1,606	4.21	5.0	4.9	40	37	14	6.57	22	22
18-Feb-10	44.4	24	30	12	37	1,619	4.03	4.8	4.9	41	37	14	6.43	79	49
19-Feb-10	46.9	20	26	16	35	1,637	4.04	4.9	4.9	41	38	13	6.55	49	49
20-Feb-10	46.1	19	26	15	34	1,571	3.82	4.8	4.9	41	38	13	6.52	70	26
21-Feb-10	48.1	21	25	12	34	1,645	3.83	4.3	4.9	37	38	12	6.58	130	22
22-Feb-10	46.5	15	23	11	33	1,529	3.72	4.4	4.8	38	38	11	6.45	40	17
23-Feb-10	46.1	13	21	11	34	1,587	3.95	4.3	4.8	37	38	13	6.53	11	11
24-Feb-10	45.2	10	17	10	34	1,519	3.91	4.3	4.8	37	38	14	6.53	49	33
25-Feb-10	47.5	14	20	9	34	1,614	4.14	4.6	4.8	34	38	13	6.54	13	8
26-Feb-10	47.1	6	16	11	35	1,649	4.27	4.6	4.8	38	38	13	6.59	<2	<2
27-Feb-10	48.2	6	16	8	34	1,653	4.36	4.7	4.8	36	38	13	6.65	<2	<2
28-Feb-10	49.8	7	22	7	32	1,599	4.24	4.7	4.8	34	38	12	6.66	2	2
<b>Max:</b>	49.8														
<b>Min:</b>	43.0														
<b>Average:</b>	<b>45.5</b>	<b>16</b>	<b>25</b>	<b>11</b>	<b>34</b>	<b>1,555</b>	<b>4.13</b>	<b>4.8</b>		<b>38</b>		<b>13</b>	<b>6.57</b>		
<b>Geo.Mean:</b>														<b>14</b>	<b>8</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 2716R.
- (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) Total Nitrogen results are calculated from TKN and nitrate values.