

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

**November 2011**

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-Nov-11	48.4	216	>144	57	34	1,625	3.66	8.8	7.0	61	50	18	6.66	110,000	110,000
2-Nov-11	45.8	168	112	42	30	1,392	4.43	8.7	7.1	53	50	18	6.73	46,000	46,000
3-Nov-11	46.6	136	105	48	32	1,476	4.35	7.8	7.2	51	50	18	6.66	110,000	110,000
4-Nov-11	47.2	116	99	42	32	1,511	3.95	7.0	7.2	50	51	18	6.73	24,000	15,000
5-Nov-11	44.0	128	94	50	32	1,390	3.69	7.0	7.2	50	51	17	6.81	2,300	930
6-Nov-11	52.3	76	<100	75	33	1,724	3.63	5.7	7.2	45	51	18	6.65	9,300	1,100
7-Nov-11	52.9	78	65	40	28	1,498	2.91	4.8	7.0	40	50	18	6.55	93,000	93,000
8-Nov-11	47.7	32	46	19	28	1,356	3.39	5.1	6.9	40	50	17	6.68	23,000	9,300
9-Nov-11	48.4	ns	ns	ns	ns	ns	ns	ns	6.6	ns	48	18	6.60	930	430
10-Nov-11	46.3	17	68	12	34	1,551	4.80	6.5	6.6	42	48	18	6.68	<3	<3
11-Nov-11	48.5	16	64	11	33	1,577	4.35	5.9	6.5	43	47	18	6.51	9	7
12-Nov-11	42.7	12	<20	11	36	1,528	4.13	5.4	6.6	41	48	18	6.54	4	<3
13-Nov-11	50.5	13	69	15	31	1,571	4.13	4.8	6.6	41	48	18	6.57	2,300	930
14-Nov-11	48.2	15	51	14	29	1,402	4.04	4.8	6.6	40	47	17	6.53	7	7
15-Nov-11	51.3	20	19	15	37	1,892	4.35	4.8	6.5	44	47	17	6.48	93	43
16-Nov-11	46.0	14	17	11	38	1,739	4.57	4.8	6.5	43	47	17	6.49	150	150
17-Nov-11	49.7	14	59	15	30	1,504	5.43	6.0	6.5	44	47	17	6.57	15	7
18-Nov-11	49.1	12	77	13	30	1,467	5.01	5.7	6.5	43	47	15	6.52	150	43
19-Nov-11	47.9	17	nr	nr	29	1,383	4.18	4.9	6.3	43	47	17	6.47	9	4
20-Nov-11	48.4	23	23	11	36	1,732	4.14	5.0	6.2	42	46	17	6.54	4	4
21-Nov-11	45.8	11	15	11	33	1,529	4.22	4.9	6.1	41	46	17	6.52	9	4
22-Nov-11	46.6	12	14	9	36	1,674	4.36	4.6	6.1	41	45	17	6.56	<3	<3
23-Nov-11	46.4	9	<10	8	37	1,693	4.25	4.6	6.0	42	45	17	6.58	4	4
24-Nov-11	46.4	13	16	10	36	1,689	4.46	5.2	5.9	43	45	17	6.51	4	4
25-Nov-11	46.4	10	66	9	25	1,165	4.38	4.9	5.8	40	44	17	7.00	9	4
26-Nov-11	46.5	13	nr	nr	24	1,129	4.09	4.8	5.7	40	44	17	6.55	<3	<3
27-Nov-11	47.6	19	61	14	25	1,184	4.04	4.8	5.6	41	44	17	6.52	4	4
28-Nov-11	46.7	26	25	20	35	1,633	4.05	5.0	5.5	41	43	17	6.57	4	<3
29-Nov-11	47.4	29	23	12	33	1,584	3.74	4.9	5.5	39	42	16	6.52	9	4
30-Nov-11	46.1	31	24	13	35	1,598	4.06	5.5	5.4	40	42	17	6.59	9	9
<b>Max:</b>	53														
<b>Min:</b>	43														
<b>Average:</b>	<b>48</b>	<b>45</b>	<b>53</b>	<b>22</b>	<b>32</b>	<b>1,524</b>	<b>4.17</b>	<b>5.6</b>		<b>44</b>		<b>17</b>	<b>6.60</b>		
<b>Geo.Mean:</b>														<b>103</b>	<b>64</b>

**Notes:**

- (1) effluent ammonia load based upon Raw Sewage flows and Final NH3-N concentrations (5)\*\* Flow, highlighted in bold, in excess of 98.6 ML/D per clause 26 of Licence 2716R.
- (2) nr - not recorded or no result; na - not analyzed; ns - no sample (6) Bracketed Coliform results not used in the Geometric Mean calculation.
- (3) Where value is expressed as less than (<), the value is halved and used in the calculations (7) Raw wastewater flows in excess of 100 ML/D will by-pass the secondary process.
- (4) \* = 30 day rolling average (8) Total Nitrogen results are calculated from TKN and nitrate values.