

**City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data
September, 2006**

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-Sep-06	52.2	5	17	4	20	1,044	4.30	5.2	3.5	29	25	20	6.65	430	230
2-Sep-06	47.1	8	12	8	20	942	4.14	4.6	3.6	29	26	20	6.69	4	4
3-Sep-06	45.7	9	24	10	19	868	4.04	4.9	3.8	31	26	20	6.72	4	4
4-Sep-06	49.9	8	nr	nr	19	948	3.63	3.8	3.9	25	26	20	6.70	150	75
5-Sep-06	52.6	8	20	7	19	999	3.37	3.3	4.0	22	26	20	6.74	3,800	3800
6-Sep-06	51.9	5	13	4	21	1,090	3.96	4.5	4.1	27	26	19	6.86	230	230
7-Sep-06	52.3	<4	15	4	22	1,151	3.88	4.3	4.2	29	27	19	6.74	430	150
8-Sep-06	51.3	<4	16	5	24	1,231	4.35	4.9	4.3	31	27	18	6.55	75	23
9-Sep-06	50.6	4	15	4	23	1,164	4.26	4.6	4.3	30	27	20	6.74	4	4
10-Sep-06	52.3	4	17	6	22	1,151	4.24	4.6	4.4	30	27	20	6.70	23	23
11-Sep-06	53.2	6	16	5	23	1,224	3.99	4.4	4.4	30	28	20	6.61	750	230
12-Sep-06	51.7	ns	ns	ns	ns	ns	ns	ns	4.4	ns	28	20	6.74	2	<3
13-Sep-06	51.3	8	29	12	26	1,334	4.30	4.8	4.5	33	28	ns	ns	ns	ns
14-Sep-06	52.1	17	25	13	26	1,355	4.32	5.0	4.5	34	29	ns	ns	ns	ns
15-Sep-06	52.4	10	23	13	25	1,310	4.34	4.9	4.5	33	29	ns	ns	ns	ns
16-Sep-06	58.1	6	14	5	23	1,336	3.79	4.2	4.5	30	29	20	6.68	7	7
17-Sep-06	82.2	10	17	7	16	1,315	2.25	2.8	4.4	22	29	19	6.66	1,500	430
18-Sep-06	68.7	4	14	6	19	1,305	2.71	3.1	4.4	24	29	19	6.91	93	93
19-Sep-06	61.1	5	16	3	19	1,161	2.64	3.1	4.3	25	28	18	6.95	93	21
20-Sep-06	55.8	5	14	4	24	1,339	3.53	4.0	4.4	29	29	18	6.74	430	150
21-Sep-06	53.6	12	38	12	24	1,286	4.14	4.7	4.4	32	29	18	6.71	930,000	930,000
22-Sep-06	53.6	8	33	12	25	1,340	4.07	4.1	4.4	30	29	18	6.62	930,000	930,000
23-Sep-06	53.7	5	14	5	25	1,343	3.62	3.5	4.3	27	29	19	6.85	2,300	430
24-Sep-06	53.8	ns	ns	ns	ns	ns	ns	ns	4.3	ns	29	19	6.78	43	23
25-Sep-06	56.0	6	17	7	24	1,344	3.20	3.5	4.3	30	29	16	6.68	23,000	23,000
26-Sep-06	53.5	<4	12	5	25	1,338	3.21	3.5	4.2	29	29	18	6.70	930	150
27-Sep-06	52.7	7	12	5	28	1,476	3.52	4.1	4.2	33	29	18	6.81	430	430
28-Sep-06	52.1	5	17	5	28	1,459	3.89	4.5	4.3	35	29	18	6.92	930	230
29-Sep-06	55.5	4	13	4	28	1,554	3.45	3.8	4.2	31	29	17	6.73	2,300	2,300
30-Sep-06	53.9	7	16	5	26	1,401	3.55	3.7	4.2	28	29	18	6.87	93	23
Total:	1631														
Max:	82														
Min:	45.7														
Average:	54.4	7	18	7	23	1,243	3.74	4.2		29		19	6.74		
Geo.Mean:														310	141

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.