

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

October 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-Oct-11	49.4	17	35	26	37	1,805	4.79	5.7	4.8	43	36	19	6.57	43	43
2-Oct-11	50.0	27	30	22	34	1,716	4.27	5.2	4.8	42	37	19	6.64	75	75
3-Oct-11	51.1	22	21	21	34	1,716	4.04	4.6	4.8	40	37	18	6.62	750	750
4-Oct-11	50.1	21	21	18	36	1,803	4.38	5.1	4.9	41	37	19	6.62	1,500	1,500
5-Oct-11	50.2	15	16	11	35	1,738	5.41	6.1	4.9	42	38	20	6.64	230	230
6-Oct-11	49.7	58	34	30	34	1,704	5.07	6.8	5.0	43	38	19	7.07	43	43
7-Oct-11	49.0	131	70	>38	35	1,695	4.28	7.5	5.1	50	38	19	6.67	43	43
8-Oct-11	48.7	212	>72	35	36	1,733	3.98	9.3	5.2	58	39	19	6.65	750	750
9-Oct-11	47.1	210	106	52	33	1,559	3.54	8.2	5.4	54	40	19	6.70	2,300	2,300
10-Oct-11	53.0	340	120	>64	32	1,697	3.45	9.9	5.5	62	41	19	6.80	120	120
11-Oct-11	49.4	120	67	64	30	1,493	3.17	6.3	5.6	43	41	ns	ns	ns	ns
12-Oct-11	50.5	188	84	35	32	1,597	3.30	7.4	5.7	52	41	ns	ns	ns	ns
13-Oct-11	67.1	54	nr	nr	24	1,604	2.39	3.2	5.6	30	41	18	6.83	>110,000	>110,000
14-Oct-11	51.0	80	58	45	30	1,515	3.05	4.5	5.6	40	41	19	6.68	>110,000	>110,000
15-Oct-11	50.8	170	97	45	32	1,601	3.14	6.0	5.7	49	41	18	6.87	930	930
16-Oct-11	52.7	184	96	42	31	1,640	2.92	6.3	5.7	51	42	18	6.89	2,300	2,300
17-Oct-11	50.6	164	84	34	31	1,564	3.06	6.4	5.8	49	42	17	6.87	12,000	12,000
18-Oct-11	49.3	164	66	55	33	1,647	3.22	6.4	5.8	45	42	18	6.70	46,000	46,000
19-Oct-11	49.4	84	65	54	34	1,699	3.94	5.8	5.9	45	43	18	6.73	46,000	46,000
20-Oct-11	50.0	180	97	>69	32	1,589	4.10	8.8	6.0	56	44	18	6.65	>110,000	>110,000
21-Oct-11	50.0	183	nr	nr	33	1,644	4.21	8.0	6.2	51	45	18	6.68	110,000	110,000
22-Oct-11	49.9	178	>72	33	34	1,690	3.66	7.7	6.3	54	45	18	6.72	9,300	9,300
23-Oct-11	52.5	172	96	>70	33	1,723	4.03	7.2	6.4	51	46	18	6.75	9,300	9,300
24-Oct-11	49.6	160	86	>69	29	1,447	3.10	7.1	6.4	50	46	18	6.68	2,300	2,300
25-Oct-11	48.3	180	97	>69	35	1,668	3.68	7.2	6.5	53	47	18	6.69	>110,000	>110,000
26-Oct-11	50.6	204	105	31	34	1,717	3.82	7.8	6.6	54	47	18	6.71	46,000	46,000
27-Oct-11	50.8	172	119	57	33	1,657	3.57	7.4	6.7	54	48	18	6.72	46,000	46,000
28-Oct-11	46.5	140	>76	36	33	1,543	3.81	7.0	6.7	51	48	18	6.71	21,000	21,000
29-Oct-11	43.3	216	>71	>34	33	1,408	3.68	8.5	6.8	61	49	18	6.74	2,300	2,300
30-Oct-11	52.7	180	108	>69	31	1,655	3.21	6.9	6.8	53	49	17	6.71	110,000	110,000
31-Oct-11	47.7	88	92	38	32	1,523	3.24	6.6	6.8	49	49	18	6.77	>110,000	>110,000
Max:	67														
Min:	43														
Average:	50	139	75	44	33	1,638	3.73	6.8		49		18	6.73		
Geo.Mean:														4,831	4,831

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.