

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

December 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-Dec-11	46.0	24	21	13	37	1,698	4.36	4.9	5.3	41	42	16	6.59	15	15
2-Dec-11	46.5	14	57	10	26	1,200	4.10	4.5	5.2	40	41	16	6.57	11	<3
3-Dec-11	46.2	15	55	11	26	1,210	4.00	4.5	5.0	41	41	16	6.51	<3	<3
4-Dec-11	47.5	18	nr	nr	36	1,706	3.98	5.1	5.0	41	41	16	6.52	<3	<3
5-Dec-11	49.3	23	29	11	34	1,651	3.84	4.7	4.9	40	40	14	6.48	4	<3
6-Dec-11	45.5	19	23	8	35	1,606	4.18	4.9	4.9	43	40	15	6.56	<3	<3
7-Dec-11	45.1	16	20	9	34	1,523	4.09	5.2	4.9	43	40	16	6.48	43	9
8-Dec-11	44.4	15	22	7	36	1,613	4.41	5.4	4.9	44	40	16	6.53	15	15
9-Dec-11	44.6	9	21	8	38	1,710	4.68	5.1	5.1	45	42	14	6.55	4	4
10-Dec-11	46.2	15	26	12	36	1,645	4.29	5.2	5.0	46	42	16	6.54	23	23
11-Dec-11	46.3	18	27	13	37	1,727	4.35	4.9	5.0	46	42	16	6.47	7	4
12-Dec-11	44.9	10	21	8	36	1,594	3.96	4.5	5.0	43	42	16	6.44	43	7
13-Dec-11	44.8	11	18	8	38	1,702	4.38	4.6	5.0	44	42	16	6.45	4	4
14-Dec-11	44.7	12	18	8	37	1,646	4.19	4.6	5.0	45	42	16	6.48	7	<3
15-Dec-11	45.0	11	20	9	36	1,639	4.06	4.8	5.0	44	42	16	6.50	9	9
16-Dec-11	45.5	10	18	9	37	1,684	4.17	4.5	4.9	44	42	15	6.73	93	43
17-Dec-11	46.1	18	27	11	35	1,605	3.89	4.6	4.9	45	42	15	6.62	150	150
18-Dec-11	45.6	16	50	14	36	1,640	3.87	4.2	4.8	42	42	16	6.54	930	230
19-Dec-11	45.7	12	21	13	33	1,500	3.51	3.9	4.8	40	42	16	6.32	2300	430
20-Dec-11	44.6	9	19	8	34	1,534	3.67	4.2	4.8	43	42	16	6.67	210	150
21-Dec-11	44.9	10	18	9	35	1,583	3.80	4.4	4.8	43	42	16	6.74	2300	150
22-Dec-11	45.1	15	24	13	36	1,620	4.17	5.0	4.8	47	43	15	6.51	43	43
23-Dec-11	46.0	12	18	8	33	1,533	3.83	4.4	4.8	42	43	16	6.59	75	38
24-Dec-11	46.3	11	18	8	32	1,495	3.74	4.2	4.7	40	42	15	6.64	9	4
25-Dec-11	40.3	23	53	9	25	1,019	3.72	4.4	4.7	44	43	16	6.56	93	43
26-Dec-11	41.4	10	19	11	37	1,525	3.74	4.3	4.7	46	43	16	6.47	9	9
27-Dec-11	43.4	7	19	8	40	1,734	4.16	4.7	4.7	50	43	16	6.48	43	23
28-Dec-11	43.0	8	12	5	36	1,544	3.88	4.4	4.7	44	43	15	6.57	43	23
29-Dec-11	42.9	8	13	6	35	1,479	3.62	4.3	4.7	44	43	15	6.42	9	9
30-Dec-11	43.3	7	10	5	38	1,637	3.89	4.3	4.6	45	44	15	6.49	23	4
31-Dec-11	43.7	12	55	7	25	1,100	3.82	4.0	4.6	42	44	15	6.46	4	4
Max:	49														
Min:	40														
Average:	45	13	26	9	34	1,552	4.01	4.6		43		15	6.53		
Geo.Mean:														24	12

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.