

City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
August 2009

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-Aug-09	309.6	6	24	4	5	1,585	1.29	1.6	2.5	13	18	16	7.05	790	220
2-Aug-09	206.1	11	20	3	9	1,820	2.19	2.5	2.5	18	18	17	7.06	330	330
3-Aug-09	258.8	14	30	8	7	1,786	2.25	2.9	2.5	19	18	17	6.95	(1,700)	(1,100)
4-Aug-09	199.2	8	26	3	8	1,604	2.47	2.8	2.6	17	18	16	6.85	49	49
5-Aug-09	197.0	8	32	3	10	1,990	2.63	3.0	2.6	23	18	16	6.89	11,000	4,900
6-Aug-09	190.4	ns	ns	ns	ns	ns	ns	ns	2.6	ns	18	19	6.63	130	49
7-Aug-09	187.7	ns	ns	ns	ns	ns	ns	ns	2.5	ns	18	19	6.72	1,400	940
8-Aug-09	177.0	ns	ns	ns	ns	ns	ns	ns	2.6	ns	18	19	6.98	220	32
9-Aug-09	179.8	ns	ns	ns	ns	ns	ns	ns	2.6	ns	19	18	6.94	330	330
10-Aug-09	185.1	13	35	4	11	1,962	3.19	3.7	2.7	21	19	19	6.69	170	32
11-Aug-09	186.8	8	36	3	10	1,816	3.17	3.8	2.7	22	19	21	6.61	49	49
12-Aug-09	185.0	5	31	4	9	1,689	2.88	3.3	2.7	19	19	20	6.52	490	490
13-Aug-09	233.8	14	30	4	8	1,756	2.38	2.9	2.8	14	19	20	6.61	4,900	3,300
14-Aug-09	261.9	10	24	4	5	1,419	2.01	2.5	2.8	14	19	20	6.58	79	49
15-Aug-09	434.6	15	25	11	3	1,430	1.24	1.8	2.8	9	19	20	6.75	(700)	(490)
16-Aug-09	344.5	18	15	6	2	723	1.26	1.6	2.8	10	19	21	6.88	1,300	490
17-Aug-09	274.8	11	16	3	3	841	1.84	2.4	2.8	14	19	18	7.07	230	49
18-Aug-09	231.4	ns	ns	ns	ns	ns	ns	ns	2.8	ns	19	20	6.89	33	23
19-Aug-09	285.9	6	12	3	4	1,261	1.97	3.8	2.8	18	19	17	6.70	140	110
20-Aug-09	304.3	35	32	12	3	934	1.66	2.2	2.8	10	19	19	6.72	170	170
21-Aug-09	342.8	<4	<10	3	1	394	1.45	1.8	2.8	8	18	18	6.81	220	170
22-Aug-09	224.2	9	<10	3	2	361	2.17	2.5	2.8	10	17	18	6.98	940	230
23-Aug-09	211.3	4	<10	<2	2	359	2.44	2.8	2.8	14	17	18	6.99	79	49
24-Aug-09	321.7	18	16	5	2	733	2.11	2.5	2.7	12	17	19	6.94	(35,000)	(22,000)
25-Aug-09	241.1	10	<10	4	3	743	2.40	2.7	2.7	14	16	19	6.79	49	11
26-Aug-09	218.3	7	10	<2	4	926	3.08	3.6	2.7	17	16	19	6.73	46	21
27-Aug-09	208.2	5	13	2	5	981	3.43	3.5	2.7	19	16	19	7.05	70	46
28-Aug-09	198.0	8	15	6	4	737	3.40	3.7	2.7	19	15	19	6.98	79	13
29-Aug-09	248.5	6	<10	2	2	499	2.45	2.8	2.7	14	15	18	6.77	700	700
30-Aug-09	180.9	8	<10	<2	2	351	3.02	3.2	2.8	17	15	18	6.80	110	79
31-Aug-09	192.8	ns	ns	ns	ns	ns	ns	ns	2.8	ns	15	19	6.64	79	49
Max:	435														
Min:	177														
Average:	239	11	19	4	5	1,148	2.34	2.8		15		18.5	6.82		
Geo.Mean:														226	117

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 380 ML/D per clause 26 of Licence 2684RRR.
- (6) Bracketed Coliform results not used in the Geometric Mean calculation.
- (7) Raw wastewater flows in excess of 400 ML/D will by-pass the secondary process and flows in excess of 675 ML/D will cause raw sewage to by-pass the plant.