

City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
September 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-Sep-09	191.4	13	22	3	12	2,316	4.27	4.7	2.9	26	16	19	6.65	170	130
2-Sep-09	184.7	9	15	3	7	1,299	3.82	4.2	3.0	22	16	20	6.56	94	21
3-Sep-09	190.3	8	15	2	9	1,714	3.82	4.1	3.0	22	16	20	6.47	130	79
4-Sep-09	191.4	<4	10	3	10	1,900	3.93	4.0	3.1	23	16	20	6.50	790	170
5-Sep-09	172.6	6	nr	nr	6	1,110	3.83	4.0	3.1	20	16	20	6.76	49	33
6-Sep-09	160.9	4	<10	3	4	685	3.63	4.0	3.2	18	16	19	6.61	131	17
7-Sep-09	167.6	7	11	2	4	724	3.64	4.0	3.2	22	17	19	6.66	22	11
8-Sep-09	289.1	36	45	16	6	1,873	2.83	3.6	3.2	21	17	19	6.50	(35,000)	(24,000)
9-Sep-09	239.1	8	15	2	4	889	2.02	2.3	3.2	12	16	19	6.58	140	46
10-Sep-09	185.6	10	14	3	8	1,498	2.91	3.3	3.1	19	16	20	6.55	170	46
11-Sep-09	383.5	53	37	13	6	2,451	2.00	2.6	3.1	12	16	18	6.60	(330)	(130)
12-Sep-09	229.3	6	6	3	4	975	1.43	1.8	3.1	13	16	18	6.74	3,300	230
13-Sep-09	189.1	8	8	3	7	1,289	2.31	2.5	3.1	19	16	19	6.81	170	46
14-Sep-09	189.5	9	11	3	7	1,380	2.76	3.4	3.1	20	17	20	6.63	110	110
15-Sep-09	189.6	11	8	4	8	1,555	3.08	3.6	3.2	22	17	20	6.56	110	22
16-Sep-09	184.6	8	12	4	9	1,704	3.26	3.7	3.2	25	17	20	6.60	230	110
17-Sep-09	184.4	11	15	3	10	1,824	3.44	3.9	3.3	23	18	21	6.50	170	170
18-Sep-09	180.2	8	12	3	9	1,665	3.55	3.9	3.3	23	18	20	6.55	790	490
19-Sep-09	168.3	9	12	4	9	1,451	4.81	nr	3.3	24	18	19	6.76	330	330
20-Sep-09	163.3	8	13	3	8	1,362	3.53	3.9	3.4	24	19	19	6.76	4,900	1,100
21-Sep-09	206.8	15	18	6	9	1,799	3.17	3.8	3.4	21	19	19	6.50	79	79
22-Sep-09	174.3	8	14	3	9	1,533	3.01	3.5	3.5	22	19	20	6.52	790	nr
23-Sep-09	169.5	14	14	3	11	1,864	3.38	3.8	3.5	25	20	20	6.59	330	110
24-Sep-09	172.2	9	17	3	12	2,118	3.62	4.1	3.6	26	20	20	6.59	490	330
25-Sep-09	171.2	10	14	3	13	2,174	3.83	4.2	3.6	26	21	20	6.50	330	79
26-Sep-09	161.2	12	15	4	13	2,047	3.91	4.2	3.6	26	21	20	6.71	1,300	27
27-Sep-09	166.1	12	nr	nr	12	1,976	3.63	3.9	3.6	26	21	19	6.70	350	79
28-Sep-09	164.6	9	17	3	13	2,073	3.69	4.5	3.7	24	21	19	6.52	350	170
29-Sep-09	168.6	9	16	4	14	2,310	3.70	4.0	3.7	24	22	19	6.43	2,400	170
30-Sep-09	165.2	9	15	3	13	2,214	3.71	4.1	3.7	nr	22	19	6.47	490	49
Max:	384														
Min:	161														
Average:	192	11	15	4	9	1,659	3.35	3.7		22		19	6.60		
Geo.Mean:														293	88

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.