

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

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-Apr-12	164.0	15	60	12	17	2,836	2.19	2.4	1.8	27	28	13	6.95	75	75
2-Apr-12	165.4	16	73	14	19	3,077	2.31	2.9	1.9	28	28	13	6.85	150	23
3-Apr-12	155.7	11	66	16	20	3,084	2.59	3.2	1.9	32	28	14	6.83	93	21
4-Apr-12	155.8	16	74	16	21	3,272	2.69	3.4	2.0	32	28	14	6.85	430	28
5-Apr-12	147.8	18	71	13	21	3,134	3.11	3.3	2.1	32	27	14	6.85	23	23
6-Apr-12	153.2	16	66	12	23	3,446	3.40	3.5	2.1	33	27	14	6.80	9	4
7-Apr-12	134.0	15	71	12	24	3,175	3.47	3.6	2.2	34	27	15	6.93	750	38
8-Apr-12	147.2	12	66	12	25	3,606	3.48	3.6	2.3	33	27	14	6.80	430	230
9-Apr-12	141.2	18	>78	17	23	3,277	3.49	3.8	2.4	34	27	14	6.83	750	430
10-Apr-12	143.5	15	75	14	24	3,458	3.77	3.9	2.5	36	27	13	6.85	93	43
11-Apr-12	140.4	12	74	14	23	3,173	3.40	4.0	2.6	36	28	14	6.80	43	15
12-Apr-12	139.0	22	59	17	26	3,599	3.60	4.2	2.7	38	29	14	6.74	43	23
13-Apr-12	232.7	44	>75	23	20	4,538	3.07	3.5	2.7	33	29	15	6.91	9	9
14-Apr-12	193.2	15	38	9	12	2,260	1.86	2.1	2.8	22	29	15	6.70	43	43
15-Apr-12	144.3	12	56	11	18	2,554	3.32	3.5	2.8	28	29	14	6.83	9	4
16-Apr-12	140.8	17	72	10	21	2,914	3.59	3.7	2.9	32	29	14	7.01	43	43
17-Apr-12	195.1	55	64	31	20	3,942	2.66	3.7	2.9	31	29	14	6.87	43	43
18-Apr-12	318.2	13	31	9	10	3,278	1.15	1.7	2.9	19	29	10	6.79	150	150
19-Apr-12	171.5	11	46	9	18	3,104	2.11	2.5	2.9	27	29	13	6.91	93	93
20-Apr-12	158.1	12	42	8	22	3,527	2.70	3.1	2.9	31	29	14	6.66	43	15
21-Apr-12	151.2	13	46	10	24	3,613	3.11	3.5	2.9	33	29	13	6.88	23	23
22-Apr-12	152.7	12	54	10	24	3,696	3.11	3.4	3.0	33	29	14	6.88	14	4
23-Apr-12	167.6	10	68	13	23	3,889	3.18	3.6	3.0	31	29	14	6.85	150	150
24-Apr-12	163.1	10	46	8	29	4,794	3.93	3.7	3.1	33	29	14	6.82	93	93
25-Apr-12	150.5	10	41	9	23	3,387	3.15	3.8	3.1	31	29	15	6.86	38	38
26-Apr-12	157.0	10	35	8	25	3,847	3.33	4.1	3.2	34	30	15	6.78	7	<3
27-Apr-12	146.6	12	41	9	30	4,412	4.22	4.6	3.3	39	31	15	6.70	23	9
28-Apr-12	148.6	12	43	7	40	6,002	5.79	6.2	3.4	52	32	15	6.81	93	11
29-Apr-12	178.5	24	52	13	36	6,356	4.43	4.9	3.5	46	32	15	6.73	93	21
30-Apr-12	172.2	11	37	8	21	3,651	3.07	3.6	3.6	31	33	14	6.95	75	75
Max:	318.2														
Min:	134.0														
Average:	164.3	16	57	12	23	3,630	3.18	3.6		33		14	6.83		
Geo.Mean:														60	28

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.
- (8) Total Nitrogen results are calculated from TKN and nitrate values.