

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
September 2013**

Licence 2684 RRR	Raw Sewage	Final Effluent 24 Hour Composite							Final Effluent Grab Sample			
		TSS	BOD5	cBOD5	Ammonia	Ortho Phosphorus	Total Phosphorus	Total Nitrogen	Temp.	pH	Fecal Coliform	E.Coli
1-Sep-13	121.9	17	15	8	2,230	2.79	3.4	29	21	6.91	230	230
2-Sep-13	128.4	19	16	7	2,376	3.27	3.5	29	20	6.83	430	430
3-Sep-13	139.8	15	16	8	2,698	3.85	3.5	29	20	6.80	93	93
4-Sep-13	134.6	14	16	8	2,827	4.19	3.6	29	20	6.79	23	9
5-Sep-13	140.4	21	17	8	3,665	4.51	3.7	30	20	6.81	93	21
6-Sep-13	142.7	16	16	8	3,424	4.48	3.8	30	20	6.74	150	75
7-Sep-13	128.2	16	16	7	2,872	4.15	3.9	30	21	6.88	2,300	430
8-Sep-13	126.5	19	16	9	2,909	3.91	3.9	30	20	6.88	2,300	930
9-Sep-13	137.0	17	19	8	3,233	4.13	4.0	30	20	6.81	43	23
10-Sep-13	143.5	15	15	7	3,301	4.35	4.1	30	20	6.76	93	93
11-Sep-13	142.4	16	16	7	3,447	4.35	4.1	30	20	6.88	430	93
12-Sep-13	144.2	12	14	6	3,489	2.89	4.1	31	20	6.76	75	14
13-Sep-13	141.3	12	nr	nr	3,222	1.30	4.0	31	20	6.77	930	750
14-Sep-13	153.6	14	14	7	3,317	0.89	3.9	31	20	6.82	4,300	4,300
15-Sep-13	128.9	10	14	6	2,630	0.59	3.8	31	20	6.77	930	430
16-Sep-13	137.4	10	13	5	2,707	0.95	3.7	31	20	6.82	230	43
17-Sep-13	140.0	10	14	4	3,037	2.04	3.7	31	20	6.79	430	21
18-Sep-13	138.2	9	12	5	3,248	2.66	3.7	31	19	6.79	380	150
19-Sep-13	144.8	10	13	5	3,677	3.10	3.8	32	20	6.82	93	93
20-Sep-13	134.7	10	14	7	3,422	3.32	3.8	32	20	6.81	93	93
21-Sep-13	124.9	10	13	5	3,009	3.68	3.8	32	20	6.89	93	93
22-Sep-13	128.5	13	14	5	2,841	3.71	3.8	33	20	6.86	230	230
23-Sep-13	133.2	10	15	6	2,931	3.48	3.8	33	20	6.84	150	20
24-Sep-13	136.7	14	nr	nr	3,145	4.00	3.8	33	20	6.98	150	150
25-Sep-13	133.8	14	16	5	3,252	4.07	3.8	33	20	6.81	93	93
26-Sep-13	179.0	21	nr	nr	4,259	3.93	3.8	34	20	6.86	43	43
27-Sep-13	148.5	22	20	9	3,044	3.04	3.8	34	20	6.75	430	93
28-Sep-13	415.6	68	36	28	4,198	1.31	3.8	33	18	6.64	(>110000)	(>110000)
29-Sep-13	180.2	6	nr	nr	1,680	1.00	3.7	33	17	6.69	7,500	1,400
30-Sep-13	158.8	10	10	5	2,430	2.53	3.6	32	19	6.70	230	29
Max:	415.6											
Min:	121.9											
Average:	149.6	16	16	7	3,084	3.08			20	6.81		
Total Flow:	4487.7											
Geo.Mean:											250	111

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