

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
October 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-Oct-13	192.0	8	13	4	2,879	2.62	3.6	32	19	6.91	93	93
2-Oct-13	148.8	9	13	5	3,036	3.63	3.6	32	19	6.76	430	430
3-Oct-13	148.3	9	18	5	3,292	4.06	3.6	32	19	6.76	93	43
4-Oct-13	144.5	11	21	6	3,150	4.47	3.6	32	19	6.76	430	4
5-Oct-13	136.9	13	10	5	2,944	3.19	3.6	32	19	6.85	430	430
6-Oct-13	137.4	12	12	5	3,244	2.11	3.5	32	19	6.72	75	75
7-Oct-13	141.8	12	nr	5	2,950	2.61	3.4	32	19	6.68	93	93
8-Oct-13	140.3	12	24	6	3,129	3.75	3.4	32	19	6.82	9	9
9-Oct-13	139.1	12	23	6	3,129	4.19	3.4	32	19	6.76	4	4
10-Oct-13	137.2	11	26	6	3,265	4.66	3.4	32	19	6.72	43	4
11-Oct-13	135.9	28	nr	nr	3,181	4.72	3.5	32	20	6.80	4	<3
12-Oct-13	220.1	15	23	8	2,839	2.54	3.5	32	18	6.83	1,500	1,500
13-Oct-13	127.9	14	28	6	2,354	2.87	3.5	32	18	6.77	46,000	46,000
14-Oct-13	128.0	18	nr	nr	2,995	3.83	3.6	32	19	6.73	93	93
15-Oct-13	138.4	19	30	8	3,349	4.52	3.8	32	18	6.70	930	930
16-Oct-13	136.7	17	nr	nr	3,624	5.34	3.9	32	19	6.76	23	23
17-Oct-13	134.7	21	33	9	3,368	4.79	4.0	32	19	6.64	93	4
18-Oct-13	131.2	19	nr	nr	3,541	3.20	4.1	32	19	6.83	150	21
19-Oct-13	130.9	25	26	9	3,496	4.74	4.2	33	19	6.86	230	230
20-Oct-13	122.9	20	27	10	3,158	4.53	4.2	33	19	6.87	1,500	1,500
21-Oct-13	138.5	21	32	11	3,463	4.22	4.2	33	19	6.73	930	430
22-Oct-13	132.8	19	34	11	3,228	4.86	4.3	33	19	6.88	230	43
23-Oct-13	137.4	16	32	11	3,668	4.35	4.3	33	18	6.82	93	43
24-Oct-13	131.0	21	32	9	3,616	4.35	4.3	33	18	6.83	210	75
25-Oct-13	133.3	17	25	9	3,267	4.09	4.4	33	19	6.85	<3	<3
26-Oct-13	125.2	16	23	9	3,055	4.40	4.4	33	19	6.85	93	93
27-Oct-13	123.0	16	32	8	3,076	4.39	4.4	33	19	6.97	930	930
28-Oct-13	131.7	16	nr	nr	3,254	4.50	4.5	34	18	6.84	93	15
29-Oct-13	133.2	16	34	7	3,397	4.62	4.6	34	18	6.85	23	9
30-Oct-13	131.5	13	29	7	3,249	4.65	4.7	35	18	6.80	93	93
31-Oct-13	132.4	13	31	6	3,469	5.00	4.8	35	18	6.84	15	7
Max:	220.1											
Min:	122.9											
Average:	139.5	16	25	7	3,215	4.06			19	6.80		
Total Flow:	4323.3											
Geo.Mean:											120	60

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