

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
February 2014**

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
		(mg/L)	(mg/L)	(mg/L)	(kg NH3-N/day)	(mg/L-P)	(mg/L-P)*	(mg/L-N)*	(°C)	(units)	MPN/100 mL	
1-Feb-14	132.2	28	24	16	3,674	1.25	4.8	41	13	6.88	1,500	1,500
2-Feb-14	129.0	28	23	16	3,664	1.31	4.7	40	13	6.81	930	430
3-Feb-14	124.6	25	21	17	3,602	1.30	4.6	40	13	6.82	4,300	4,300
4-Feb-14	135.4	ns	ns	ns	ns	ns	4.5	40	13	6.79	1,500	930
5-Feb-14	124.1	27	27	19	3,895	1.49	4.5	41	12	6.91	2,300	2,300
6-Feb-14	133.8	20	27	19	4,362	2.05	4.4	41	13	6.91	1,200	640
7-Feb-14	134.0	28	24	16	4,381	1.11	4.2	40	13	6.90	15,000	7,500
8-Feb-14	122.0	26	21	16	3,732	0.78	4.1	40	13	6.86	3,800	930
9-Feb-14	123.5	25	23	17	3865	1.09	3.9	40	13	6.86	430	430
10-Feb-14	131.4	26	22	15	3850	0.84	3.7	40	13	6.79	430	28
11-Feb-14	129.8	26	22	15	3958	1.40	3.6	40	13	6.97	93	15
12-Feb-14	131.3	26	25	15	3926	1.56	3.5	40	13	6.86	430	230
13-Feb-14	132.4	27	nr	nr	3880	1.51	3.4	40	13	6.68	430	430
14-Feb-14	135.6	27	21	16	3947	1.25	3.2	40	13	6.81	430	430
15-Feb-14	130.0	30	27	18	3627	1.22	3.1	39	13	6.86	750	750
16-Feb-14	131.7	30	25	15	3,543	0.90	2.9	39	13	6.93	1,500	1,500
17-Feb-14	134.3	29	nr	nr	3,466	0.98	2.8	39	13	6.97	2,300	2,300
18-Feb-14	135.6	27	23	15	3,457	1.13	2.7	39	12	6.81	150	93
19-Feb-14	157.0	23	24	17	4,256	1.47	2.6	39	13	6.81	750	230
20-Feb-14	143.2	44	25	18	3,837	1.51	2.5	38	13	6.81	430	93
21-Feb-14	148.2	30	23	18	3,631	1.16	2.4	38	12	6.76	930	430
22-Feb-14	132.3	29	23	16	3,492	1.11	2.3	38	12	6.82	430	430
23-Feb-14	131.1	23	26	17	4,328	1.30	2.2	38	12	6.80	2,300	2,300
24-Feb-14	130.0	25	27	17	4,213	1.29	2.2	38	13	6.85	93	93
25-Feb-14	137.1	26	nr	nr	4,387	1.85	2.3	38	12	6.87	230	230
26-Feb-14	139.5	27	25	18	4,296	1.73	2.3	38	12	6.98	<3	<3
27-Feb-14	140.6	24	22	16	4,134	1.44	2.3	39	13	6.90	430	430
28-Feb-14	138.3	22	23	14	3,817	1.35	2.2	39	13	6.80	75	7
Max:	157.0											
Min:	122.0											
Average:	133.9	27	24	17	3,897	1.31			13	6.85		
Total Flow:	3747.9											
Geo.Mean:											579	333

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