

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
January 2016**

Licence 2684 RRR	File # 1071.10	Final Effluent 24 Hour Composite							Final Effluent Grab Sample					
		Date	Raw Sewage 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)	(kg NH3-N/day)	(mg/L-P)	(mg/L-P)*	(mg/L-N)*	(°C)	(units)	MPN/100 mL	
1-Jan-16	121.4	15	18	10	3,677	3.48	4.3	37.1	15.5	7.11	4,300	4,300		
2-Jan-16	121.9	16	21	10	3,780	3.58	4.3	37.2	15.4	6.94	43	43		
3-Jan-16	122.9	14	24	11	4,214	3.75	4.3	37.3	15.3	7.43	930	930		
4-Jan-16	135.7	16	21	10	3,908	3.76	4.3	37.4	15.2	7.02	43	23		
5-Jan-16	137.3	12	22	9	4,119	3.95	4.3	37.5	15.3	6.91	93	93		
6-Jan-16	131.0	12	32	15	4,153	3.99	4.3	37.8	15.4	6.86	43	43		
7-Jan-16	129.0	17	30	9	4,128	4.04	4.3	38.0	15.5	6.99	9,300	9,300		
8-Jan-16	131.0	15	24	8	4,336	3.90	4.3	38.3	15.5	7.06	93	23		
9-Jan-16	126.4	18	24	9	4,207	3.99	4.3	38.6	15.2	7.12	430	240		
10-Jan-16	124.9	16	23	9	4,073	3.93	4.3	38.8	14.8	6.98	430	430		
11-Jan-16	127.6	16	23	9	4,018	3.53	4.3	38.9	14.5	7.06	9	9		
12-Jan-16	127.2	11	nr	nr	3,830	3.91	4.3	39.2	14.4	7.04	43	43		
13-Jan-16	127.2	14	26	10	4,020	3.77	4.3	39.5	14.5	7.01	93	21		
14-Jan-16	132.4	14	23	9	4,474	3.27	4.3	39.7	14.9	6.86	74	74		
15-Jan-16	129.5	11	24	9	4,404	3.21	4.3	40.1	14.7	6.94	240	240		
16-Jan-16	122.5	16	23	nr	4,151	3.15	4.3	40.3	14.7	7.18	430	430		
17-Jan-16	127.7	18	25	11	4,431	2.65	4.2	40.6	14.5	6.95	930	930		
18-Jan-16	130.5	12	23	8	4,122	2.21	4.2	40.7	14.4	7.06	150	150		
19-Jan-16	126.9	20	20	11	4,062	2.23	4.1	40.9	14.5	6.85	24,000	24,000		
20-Jan-16	128.8	16	18	nr	4,173	2.35	4.1	41.0	14.6	6.92	93	93		
21-Jan-16	128.5	17	15	8	4,240	2.52	4.0	41.2	14.7	6.92	430	430		
22-Jan-16	124.6	12	14	8	4,347	2.36	4.0	41.3	14.9	6.89	93	43		
23-Jan-16	126.0	15	14	8	4,574	2.32	4.0	41.4	13.5	7.01	2,400	2,400		
24-Jan-16	124.5	17	15	9	4,469	2.29	3.9	41.7	14.8	7.08	15,000	15,000		
25-Jan-16	121.9	14	16	8	4,192	2.04	3.8	41.8	15.0	7.02	930	930		
26-Jan-16	137.1	12	16	9	4,865	2.37	3.8	42.0	15.1	7.01	43	43		
27-Jan-16	139.1	16	20	9	4,895	2.22	3.7	42.1	15.2	7.01	93	93		
28-Jan-16	134.0	10	19	8	4,744	1.99	3.7	42.1	14.9	6.88	240	240		
29-Jan-16	132.9	12	26	9	4,958	2.23	3.7	42.2	15.0	6.88	93	93		
30-Jan-16	131.2	12	27	7	4,683	1.92	3.7	42.5	15.0	7.08	240	240		
31-Jan-16	125.4	10	20	8	4,026	1.74	3.6	42.6	15.0	6.94	240	240		
Max:	139.1													
Min:	121.4													
Average:	128.6	14	22	9	4,267	2.99			15	7.00				
Total Flow:	3986.6													
Geo.Mean:											271	232		

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 2684RRF

- (6) Bracketed Coliform results not used in the Geometric Mean calculator
- (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 plan
- (8) Total Nitrogen results are calculated from TKN and nitrate values