

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

| Licence 2684 RRR | File # 1071.10 | Final Effluent 24 Hour Composite | | | | | | | Final Effluent Grab Sample | | | | | |
|---------------------|-------------------|-------------------------------------|----------------------------------|----------|--------------|-------------|----------------|---------------------|-------------------------------|-------------------|------------|------------|-------------------|--------|
| | | Date | Raw Sewage Daily Flow ML** | 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-Aug-16 | 350.7 | 43 | 46 | 20 | 1,193 | 1.97 | 3.2 | 23.4 | 20.2 | 6.37 | (>110,000) | (>110,000) | | |
| 2-Aug-16 | 244.6 | 13 | 10 | 6 | nr | 1.46 | 3.2 | 23.4 | 20.0 | 6.70 | 430 | 240 | | |
| 3-Aug-16 | 194.3 | 16 | 12 | 6 | 1,170 | 2.50 | 3.2 | 23.3 | 19.8 | 6.63 | 2,100 | 2,100 | | |
| 4-Aug-16 | 200.9 | 8 | 9 | 6 | 1,169 | 2.20 | 3.2 | 23.4 | 20.1 | 6.64 | 9,300 | 4,300 | | |
| 5-Aug-16 | 167.5 | 11 | 9 | 6 | 1,196 | 2.83 | 3.2 | 23.3 | 20.2 | 6.59 | 74 | 43 | | |
| 6-Aug-16 | 157.0 | 12 | 8 | 5 | 1,020 | 3.27 | 3.2 | 23.2 | 20.5 | 6.50 | 240 | 240 | | |
| 7-Aug-16 | 150.6 | 12 | 11 | 6 | 839 | 3.55 | 3.2 | 23.0 | 20.0 | 6.45 | 74 | 9 | | |
| 8-Aug-16 | 159.0 | 10 | 10 | 6 | 897 | 3.35 | 3.2 | 22.8 | 19.9 | 6.47 | 21 | 15 | | |
| 9-Aug-16 | 157.2 | 16 | 15 | 7 | 1,267 | 3.62 | 3.3 | 22.8 | 19.9 | 6.53 | 23 | 9 | | |
| 10-Aug-16 | 155.4 | 16 | 11 | 6 | 1,787 | 3.87 | 3.3 | 22.9 | 20.2 | 6.44 | 15 | 7 | | |
| 11-Aug-16 | 156.4 | 12 | 13 | 6 | 1,861 | 4.03 | 3.4 | 23.4 | 20.5 | 6.42 | 240 | 240 | | |
| 12-Aug-16 | 153.3 | 12 | 10 | 6 | 1,870 | 3.67 | 3.5 | 24.0 | 21.1 | 6.47 | 74 | 74 | | |
| 13-Aug-16 | 134.8 | 13 | 12 | 7 | 1,645 | 3.74 | 3.5 | 24.3 | 21.0 | 6.56 | 140 | 43 | | |
| 14-Aug-16 | 139.7 | 16 | 13 | 7 | 1,593 | 4.12 | 3.6 | 24.7 | 20.4 | 6.46 | 23 | 23 | | |
| 15-Aug-16 | 236.8 | 25 | 39 | 22 | 2,368 | 2.89 | 3.6 | 24.8 | 20.4 | 6.35 | 43 | 15 | | |
| 16-Aug-16 | 236.5 | 12 | 10 | 6 | 1,391 | 1.97 | 3.5 | 24.7 | 20.9 | 6.48 | 2,400 | 930 | | |
| 17-Aug-16 | 170.5 | 50 | 41 | 23 | 1,995 | 2.72 | 3.5 | 24.8 | 21.0 | 6.43 | 430 | 240 | | |
| 18-Aug-16 | 445.5 | 13 | 12 | 7 | 1,769 | 1.34 | 3.4 | 24.3 | 20.7 | 6.60 | (930) | (930) | | |
| 19-Aug-16 | 197.1 | 8 | 7 | 5 | 1,665 | 2.23 | 3.4 | 24.5 | 20.9 | 6.68 | 150 | 93 | | |
| 20-Aug-16 | 168.1 | 10 | 8 | 6 | 1,765 | 3.07 | 3.5 | 24.9 | 20.8 | 6.60 | 150 | 150 | | |
| 21-Aug-16 | 152.1 | 12 | 8 | 5 | 1,749 | 3.47 | 3.5 | 25.2 | 20.2 | 6.60 | 240 | 240 | | |
| 22-Aug-16 | 158.8 | 11 | 10 | 6 | 1,683 | 3.36 | 3.6 | 25.7 | 20.1 | 6.57 | 43 | 15 | | |
| 23-Aug-16 | 156.3 | 11 | 11 | 6 | 1,813 | 3.64 | 3.6 | 26.3 | 20.4 | 6.52 | 74 | <3 | | |
| 24-Aug-16 | 155.6 | 15 | 12 | 7 | 2,318 | 3.69 | 3.7 | 26.9 | 20.5 | 6.64 | 240 | 240 | | |
| 25-Aug-16 | 209.3 | 14 | 15 | 8 | 2,554 | 2.99 | 3.7 | 27.2 | 19.9 | 6.89 | 140 | 93 | | |
| 26-Aug-16 | 150.1 | 4 | 9 | 6 | 1,997 | 3.65 | 3.7 | 27.7 | 20.3 | 6.57 | 9,300 | 9 | | |
| 27-Aug-16 | 133.0 | 12 | 9 | 5 | 2,021 | 4.22 | 3.7 | 28.2 | 21.4 | 6.66 | 43 | 43 | | |
| 28-Aug-16 | 139.1 | 10 | 11 | 4 | 1,975 | 4.18 | 3.7 | 28.6 | 20.3 | 6.56 | 43 | 7 | | |
| 29-Aug-16 | 142.1 | 10 | 10 | 5 | 1,989 | 4.19 | 3.7 | 29.0 | 20.3 | 6.50 | 93 | 11 | | |
| 30-Aug-16 | 139.4 | 11 | 11 | 5 | 2,119 | 4.73 | 3.8 | 29.3 | 20.4 | 6.59 | 150 | 74 | | |
| 31-Aug-16 | 142.4 | 9 | 14 | 6 | 2,820 | 4.52 | 3.8 | 30.1 | 20.5 | 6.63 | 240 | 93 | | |
| Max: | 445.5 | | | | | | | | | | | | | |
| Min: | 133.0 | | | | | | | | | | | | | |
| Average: | 182.4 | 14 | 14 | 7 | 1,716 | 3.26 | | | 20 | 6.55 | | | | |
| Total Flow: | 5654.0 | | | | | | | | | | | | | |
| Geo.Mean: | | | | | | | | | | | 159 | 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