

**City of Winnipeg  
Water and Waste Department  
South End Water Pollution Control Centre Monitoring Data**

**August 2021**

| Licence #<br>2716RR | File #<br>1069.10 | Final Effluent<br>24 Hour Composite |         |           |         |              |         |                |                  |                  |                | Final Effluent<br>Grab Sample |             |            |
|---------------------|-------------------|-------------------------------------|---------|-----------|---------|--------------|---------|----------------|------------------|------------------|----------------|-------------------------------|-------------|------------|
|                     |                   | TSS                                 |         | BOD5      |         | cBOD5        |         | Ammonia        | Ortho Phosphorus | Total Phosphorus | Total Nitrogen | Temp.                         | pH          | E.Coli     |
|                     |                   | (mg/L)                              | (mg/L)* | (mg/L)    | (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-21            | 44.9              | 7                                   | 5       | 25        | 20      | 4            | 4       | 1,613          | 3.52             | 4.3              | 48.7           | 19.1                          | 6.63        | 10         |
| 2-Aug-21            | 46.5              | 10                                  | 5       | 17        | 20      | 4            | 4       | 1,681          | 3.75             | 4.3              | 48.9           | 19.1                          | 6.80        | 10         |
| 3-Aug-21            | 48.4              | 11                                  | 5       | 17        | 20      | nr           | 4       | 1,772          | 3.76             | 4.3              | 49.0           | 19.2                          | 6.82        | 10         |
| 4-Aug-21            | 48.5              | 7                                   | 5       | 16        | 20      | <4           | 4       | 1,772          | 2.87             | 4.2              | 49.3           | 19.4                          | 6.70        | 10         |
| 5-Aug-21            | 49.2              | 7                                   | 5       | 16        | 20      | <4           | 4       | 1,854          | 3.21             | 4.1              | 49.6           | 19.9                          | 6.71        | <10        |
| 6-Aug-21            | 48.3              | 6                                   | 5       | 18        | 20      | 4            | 4       | 1,883          | 3.49             | 4.1              | 49.7           | 19.2                          | 6.74        | <10        |
| 7-Aug-21            | 47.0              | 6                                   | 5       | 26        | 20      | <4           | 3       | 1,761          | 3.66             | 4.0              | 49.9           | 19.6                          | 6.71        | <10        |
| 8-Aug-21            | 48.0              | 9                                   | 5       | 29        | 20      | 4            | 3       | 1,770          | 3.83             | 4.0              | 50.0           | 19.9                          | 6.71        | <10        |
| 9-Aug-21            | 60.3              | 15                                  | 6       | 30        | 20      | 8            | 3       | 2,232          | 3.43             | 4.1              | 49.8           | 19.4                          | 6.61        | 30         |
| 10-Aug-21           | 60.3              | <3                                  | 6       | 15        | 20      | <4           | 3       | 2,069          | 1.34             | 4.0              | 49.6           | 19.5                          | 6.72        | 10         |
| 11-Aug-21           | 56.8              | <3                                  | 5       | 15        | 20      | <4           | 3       | 2,033          | 2.17             | 4.0              | 49.6           | 19.2                          | 6.75        | 30         |
| 12-Aug-21           | 49.3              | 7                                   | 6       | 18        | 20      | <4           | 3       | 1,912          | 3.04             | 4.0              | 49.8           | 18.6                          | 6.76        | <10        |
| 13-Aug-21           | 49.1              | 9                                   | 6       | 23        | 20      | <4           | 3       | 2,326          | 3.46             | 4.0              | 50.2           | 18.8                          | 6.74        | 10         |
| 14-Aug-21           | 47.3              | 5                                   | 6       | 22        | 20      | <4           | 3       | 2,254          | 3.80             | 4.0              | 50.2           | 19.3                          | 6.67        | <10        |
| 15-Aug-21           | 49.0              | 10                                  | 6       | 28        | 21      | 4            | 3       | 1,792          | 3.64             | 4.0              | 50.2           | 19.3                          | 6.65        | <10        |
| 16-Aug-21           | 50.8              | 8                                   | 6       | 23        | 21      | 4            | 3       | 2,162          | 2.72             | 4.0              | 50.1           | 19.7                          | 6.61        | 20         |
| 17-Aug-21           | 50.7              | 11                                  | 6       | 18        | 21      | <4           | 3       | 2,041          | 2.79             | 3.9              | 50.2           | 20.4                          | 6.69        | 20         |
| 18-Aug-21           | 50.1              | 5                                   | 6       | 27        | 21      | <4           | 3       | 2,203          | 3.10             | 3.9              | 50.6           | 19.9                          | 6.67        | <10        |
| 19-Aug-21           | 49.6              | <3                                  | 6       | 18        | 21      | <4           | 3       | 2,511          | 3.13             | 3.9              | 51.0           | 19.9                          | 6.65        | 880        |
| 20-Aug-21           | 72.4              | 43                                  | 8       | 42        | 22      | 23           | 4       | 2,412          | 2.34             | 3.9              | 50.7           | 19.6                          | 6.66        | <10        |
| 21-Aug-21           | <b>117.3</b>      | 5                                   | 8       | 11        | 22      | <4           | 4       | 2,568          | 0.98             | 3.8              | 50.1           | 17.9                          | 6.83        | 40         |
| 22-Aug-21           | 70.9              | 10                                  | 8       | 13        | 22      | 5            | 4       | 2,043          | 2.34             | 3.8              | 49.5           | 18.5                          | 6.77        | <10        |
| 23-Aug-21           | 82.1              | 3                                   | 8       | 12        | 21      | <4           | 4       | 2,151          | 1.68             | 3.7              | 49.0           | 18.3                          | 6.78        | 20         |
| 24-Aug-21           | 62.9              | <3                                  | 8       | 14        | 21      | <4           | 4       | 1,999          | 2.36             | 3.7              | 48.4           | 18.7                          | 6.77        | 10         |
| 25-Aug-21           | 57.7              | <3                                  | 8       | 20        | 21      | <4           | 4       | 1,973          | 3.25             | 3.6              | 48.0           | 18.8                          | 6.75        | 20         |
| 26-Aug-21           | 55.3              | 5                                   | 8       | 24        | 21      | <4           | 4       | 1,945          | 3.77             | 3.6              | 47.6           | 18.7                          | 6.77        | 10         |
| 27-Aug-21           | 62.6              | 8                                   | 8       | 20        | 21      | <4           | 4       | 2,046          | 3.90             | 3.6              | 47.2           | 18.8                          | 6.74        | <10        |
| 28-Aug-21           | 66.8              | 6                                   | 8       | 16        | 20      | <4           | 4       | 1,636          | 2.12             | 3.5              | 46.5           | 18.6                          | 6.82        | <10        |
| 29-Aug-21           | 57.6              | 4                                   | 8       | 27        | 21      | <4           | 4       | 1,660          | 2.74             | 3.5              | 46.1           | 18.8                          | 6.74        | <10        |
| 30-Aug-21           | 56.7              | 7                                   | 8       | 18        | 21      | <4           | 3       | 1,724          | 2.80             | 3.5              | 45.8           | 18.9                          | 6.65        | 10         |
| 31-Aug-21           | 54.5              | 7                                   | 8       | 17        | 20      | <4           | 3       | 1,645          | 2.96             | 3.5              | 45.4           | 19.4                          | 6.76        | 370        |
| <b>Max:</b>         | 117.3             |                                     |         |           |         |              |         |                |                  |                  |                |                               |             |            |
| <b>Min:</b>         | 44.9              |                                     |         |           |         |              |         |                |                  |                  |                |                               |             |            |
| <b>Average:</b>     | <b>57.1</b>       | <b>8</b>                            |         | <b>20</b> |         | <b>&lt;4</b> |         | <b>1,982</b>   | <b>2.97</b>      |                  |                | <b>19.2</b>                   | <b>6.72</b> |            |
| <b>Total Flow:</b>  | <b>1,770.5</b>    |                                     |         |           |         |              |         |                |                  |                  |                |                               |             |            |
| <b>Geo.Mean:</b>    |                   |                                     |         |           |         |              |         |                |                  |                  |                |                               |             | <b>12</b>  |

**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 98.6 ML/D per clause 27 of Licence 2716RR
- (6) Bracketed Coliform results not used in the Geometric Mean calculation
- (7) Raw wastewater flows in excess of 100 ML/D will by-pass the secondary process