

\* There were no adverse test results for the Elgin Area Primary Water Supply System during this quarter.

**Analytical Test Results:** (All values are reported in mg/L unless otherwise noted)

Microbiological Parameters (Required Testing Under O.Reg. 170/03)

| Microbiological Parameters             | MAC or IMAC    | No. of Samples | No. of Detectable Results | No. of Adverse Results | Method              | Sampling Date | Results |      | Comments   |
|--|----------------|----------------|---------------------------|------------------------|---------------------|---------------|---------|------|--|
|  |                |                |                           |                        |                     |               | Min.    | Max. |  |
| Total Coliform (counts/100ml) *        | Not Detectable | 69             | 0                         | 0                      | Membrane Filtration | Jul-Sep       | 0       | 0    | Coliforms are used as an indicator of fecal contamination of drinking water, as well as to determine the efficiency of treatment and the integrity of the water distribution system. Zero detectable test results indicate that Total Coliforms were not detected. |
| <i>E. Coli</i> (counts/100ml) *        | Not Detectable | 69             | 0                         | 0                      | Membrane Filtration | Jul-Sep       | 0       | 0    | <i>E. coli</i> is an indicator of fecal contamination of drinking water. Zero detectable test results indicate that <i>E.coli</i> was not detected.  |
| Heterotrophic Plate Count (counts/1ml) | N/A            | 69             | 4                         | 0                      | Spread Plate Count  | Jul-Sep       | <10     | 20   | Test parameter is used as an indicator of possible deterioration of water quality. Increases in HPC concentrations above baseline levels are considered undesirable.   |

## Operational Parameters:

| Operational Parameters                        | MAC or IMAC | Objective AO/OG | No. of Samples                                    | Sampling Date | Results |       |       | Comments   |
|---|-------------|-----------------|---|---------------|---------|-------|-------|--|
|   |             |                 |   |               | Min.    | Max.  | Avg.  |  |
| Chlorine Residual <sup>1</sup> , Free (mg/L)  |             |                 | Continuous monitoring plus 6 grab samples per day | Jul-Sep       | 0.90    | 1.48  | 1.24  | The maintenance of an adequate free chlorine residual is essential to the protection of public health. Values reported are an average of the 6 daily grab samples. The regulated minimum for free chlorine residual concentration in a water distribution system is 0.05mg/L; however the contractual obligation of the water system is to achieve 0.5mg/L at the point of supply to the municipalities. |
| Chlorine Residual <sup>1</sup> , Total (mg/L) |             |                 | Continuous monitoring plus 2 grab samples per day | Jul-Sep       | 1.11    | 1.68  | 1.41  | The maintenance of an adequate free chlorine residual is essential to the protection of public health. Values reported are an average of the 2 daily grab samples.   |
| Colour (TCU)                                  |             | 5               | 2 grab samples per day                            | Jul-Sep       | <3      | <3    | <3    | Values reported are an average of the 2 daily grab samples.  |
| Conductivity (µS/cm)                          |             |                 | Continuous monitoring plus 2 grab samples per day | Jul-Sep       | 100     | 329   | 276   | Values reported based on daily minimum, maximum and average that have been recorded electronically.  |
| pH  |             | 6.5 – 8.5       | Continuous monitoring plus 6 grab samples per day | Jul-Sep       | 7.30    | 7.79  | 7.51  | Values reported are an average of the 6 daily grab samples.  |
| Turbidity <sup>1,2</sup> (NTU)                |             |                 | Continuous monitoring plus 6 grab samples per day | Jul-Sep       | 0.022   | 0.099 | 0.052 | Turbidity (cloudiness) of water is an indication of the presence of particles in the water. If excessive, it may interfere with proper disinfection. Values reported are an average of the 6 daily grab samples.   |

| Operational Parameters       | MAC or IMAC | Objective AO/OG | No. of Samples                                    | Sampling Date | Results |       |       | Comments   |
|------------------------------|-------------|-----------------|---|---------------|---------|-------|-------|--|
|                              |             |                 |   |               | Min.    | Max.  | Avg.  |  |
| Fluoride <sup>1</sup> (mg/L) | 1.5         | 0.6 – 0.8       | Continuous monitoring plus 2 grab samples per day | Jul-Sep       | 0.30    | 0.80  | 0.66  | Naturally occurring fluoride levels are supplemented during treatment to achieve the optimum level of 0.7mg/L recommended by Health Canada. The Ministry of Health and Long-Term Care's document "Safe Drinking Water and Fluoride Monitoring Protocol, 2018" recommends a therapeutic range of 0.6 - 0.8 mg/L for fluoride. Values reported are an average of the 2 daily grab samples. |
| Aluminum (mg/L)              |             | <0.1            | 2 grab samples per day                            | Jul-Sep       | 0.001   | 0.068 | 0.017 | Aluminum levels are slightly elevated during treatment as a result of the use of alum to help in the removal of particulates.  |
| Temperature (Celsius)        |             | 15              | Continuous monitoring plus 6 grab samples per day | Jul-Sep       | 12.9    | 25.5  | 20.3  | Raw Water Temperature. Values reported are an average of the 6 daily grab samples.   |

Inorganic Parameters (Required Testing Under O.Reg. 170/03 – Schedule 23):

| Schedule 23 - Inorganic Parameters |          | MAC or IMAC (mg/L) | Objective AO/OG | O.Reg. 170/03 Required Frequency of Testing (months) | 2018 | 2019     |    |          | Reportable Detection Limit (mg/L) | Comments |
|------------------------------------|----------|--------------------|-----------------|--|------|----------|----|----------|-----------------------------------|----------|
|                                    |          |                    |                 |  | Q4   | Q1       | Q2 | Q3       |                                   |          |
| 1.                                 | Antimony | 0.006              |                 | 12   | NT   | 0.00017  | NT | 0.00019  | 0.00002                           |          |
| 2.                                 | Arsenic  | 0.010              |                 | 12   | NT   | 0.0003   | NT | 0.0003   | 0.0002                            |          |
| 3.                                 | Barium   | 1.0                |                 | 12   | NT   | 0.0215   | NT | 0.0225   | 0.00001                           |          |
| 4.                                 | Boron    | 5.0                |                 | 12   | NT   | 0.019    | NT | 0.022    | 0.0002                            |          |
| 5.                                 | Cadmium  | 0.005              |                 | 12   | NT   | 0.000012 | NT | 0.000008 | 0.000003                          |          |
| 6.                                 | Chromium | 0.05               |                 | 12   | NT   | 0.00013  | NT | 0.00019  | 0.0005                            |          |
| 7.                                 | Mercury  | 0.001              |                 | 12   | NT   | ND       | NT | ND       | 0.00002                           |          |
| 8.                                 | Selenium | 0.05               |                 | 12   | NT   | 0.00016  | NT | 0.00015  | 0.001                             |          |
| 9.                                 | Uranium  | 0.02               |                 | 12   | NT   | 0.000036 | NT | 0.00180  | 0.000001                          |          |

Organic Parameters (Required Testing Under O.Reg. 170/03 – Schedule 24):

| Schedule 24 – Organic Parameters |                                      | MAC or IMAC (mg/L) | Objective AO/OG | O.Reg. 170/03 Required Frequency of Testing (months) | 2018 | 2019    |    |         | Reportable Detection Limit (mg/L) | Comments   |
|----------------------------------|--------------------------------------|--------------------|-----------------|--|------|---------|----|---------|-----------------------------------|--|
|                                  |                                      |                    |                 |  | Q4   | Q1      | Q2 | Q3      |                                   |  |
| 1.                               | Alachlor                             | 0.005              |                 | 12   | NT   | ND      | NT | ND      | 0.00002                           | Herbicide  |
| 2.                               | Atrazine + N-dealkylated metabolites | 0.005              |                 | 12   | NT   | 0.00008 | NT | 0.00006 | 0.00001                           | Herbicide  |
| 3.                               | Azinphos-methyl                      | 0.02               |                 | 12   | NT   | ND      | NT | ND      | 0.00002                           | Insecticide  |
| 4.                               | Benzene                              | 0.005              |                 | 12   | NT   | ND      | NT | ND      | 0.00032                           | An aromatic hydrocarbon present in gasoline  |
| 5.                               | Benzo(a)pyrene                       | 0.00001            |                 | 12   | NT   | ND      | NT | ND      | 0.000004                          | A polycyclic aromatic hydrocarbon (PAH) that forms during the combustion of organic matter (eg. emissions from burning fossil fuels) |
| 6.                               | Bromoxynil                           | 0.005              |                 | 12   | NT   | ND      | NT | ND      | 0.00033                           | Herbicide  |
| 7.                               | Carbaryl                             | 0.09               |                 | 12   | NT   | ND      | NT | ND      | 0.00001                           | Insecticide  |
| 8.                               | Carbofuran                           | 0.09               |                 | 12   | NT   | ND      | NT | ND      | 0.00001                           | Insecticide  |
| 9.                               | Carbon Tetrachloride                 | 0.005              |                 | 12   | NT   | ND      | NT | ND      | 0.00016                           | An organic liquid that is primarily released from man-made sources; used in industrial and agricultural process                      |
| 10.                              | Chlorpyrifos                         | 0.09               |                 | 12   | NT   | ND      | NT | ND      | 0.00002                           | Pesticide  |

| Schedule 24 – Organic Parameters |  | MAC or IMAC (mg/L) | Objective AO/OG | O.Reg. 170/03 Required Frequency of Testing (months) | 2018 | 2019 |    |    | Reportable Detection Limit (mg/L) | Comments  |
|----------------------------------|--|--------------------|-----------------|--|------|------|----|----|-----------------------------------|---|
|                                  |  |                    |                 |  | Q4   | Q1   | Q2 | Q3 |                                   |   |
| 11.                              | Diazinon                                   | 0.02               |                 | 12   | NT   | ND   | NT | ND | 0.00002                           | Insecticide   |
| 12.                              | Dicamba                                    | 0.12               |                 | 12   | NT   | ND   | NT | ND | 0.0002                            | Herbicide   |
| 13.                              | 1,2-Dichlorobenzene                        | 0.2                | 0.003           | 12   | NT   | ND   | NT | ND | 0.00041                           | An organic compound used in both industrial and commercial products (coolant, degreaser, solvent)                     |
| 14.                              | 1,4-Dichlorobenzene                        | 0.005              | 0.001           | 12   | NT   | ND   | NT | ND | 0.00036                           | An organic compound used in both industrial and commercial products (deodorizer, fungicide, lubricant)                |
| 15.                              | 1,2-Dichloroethane                         | 0.005              |                 | 12   | NT   | ND   | NT | ND | 0.00035                           | An organic chemical with many industrial and commercial applications (solvent, fumigant, ingredient in plastics etc.) |
| 16.                              | 1,1-Dichloroethylene (vinylidene chloride) | 0.014              |                 | 12   | NT   | ND   | NT | ND | 0.00033                           | Volatile organic compound; imported for use in the food packaging and textile industries                              |
| 17.                              | Dichloromethane                            | 0.05               |                 | 12   | NT   | ND   | NT | ND | 0.00035                           | Volatile organic compound used in a variety of industries (electronics, textiles, pharmaceuticals, plastics etc.)     |
| 18.                              | 2,4-Dichlorophenol                         | 0.9                | 0.0003          | 12   | NT   | ND   | NT | ND | 0.00015                           | An organic compound used in industry and chemical manufacturing   |
| 19.                              | 2,4-Dichlorophenoxy acetic acid (2,4-D)    | 0.1                |                 | 12   | NT   | ND   | NT | ND | 0.00019                           | Herbicide   |

| Schedule 24 – Organic Parameters |                   | MAC or IMAC (mg/L) | Objective AO/OG | O.Reg. 170/03 Required Frequency of Testing (months) | 2018 | 2019    |    |         | Reportable Detection Limit (mg/L) | Comments   |
|----------------------------------|-------------------|--------------------|-----------------|--|------|---------|----|---------|-----------------------------------|--|
|                                  |                   |                    |                 |  | Q4   | Q1      | Q2 | Q3      |                                   |  |
| 20.                              | Diclofop-methyl   | 0.009              |                 | 12   | NT   | ND      | NT | ND      | 0.0004                            | Herbicide  |
| 21.                              | Dimethoate        | 0.02               |                 | 12   | NT   | ND      | NT | ND      | 0.00003                           | Insecticide  |
| 22.                              | Diquat            | 0.07               |                 | 12   | NT   | ND      | NT | ND      | 0.001                             | Herbicide  |
| 23.                              | Diuron            | 0.15               |                 | 12   | NT   | ND      | NT | ND      | 0.00003                           | Herbicide  |
| 24.                              | Glyphosate        | 0.28               |                 | 12   | NT   | ND      | NT | ND      | 0.006                             | Herbicide  |
| 25.                              | Malathion         | 0.19               |                 | 12   | NT   | ND      | NT | ND      | 0.00002                           | Insecticide  |
| 26.                              | Metolachlor       | 0.05               |                 | 12   | NT   | 0.00002 | NT | 0.00001 | 0.00001                           | Herbicide  |
| 27.                              | Metribuzin        | 0.08               |                 | 12   | NT   | ND      | NT | ND      | 0.00002                           | Herbicide  |
| 28.                              | Monochlorobenzene | 0.08               | 0.03            | 12   | NT   | ND      | NT | ND      | 0.0003                            | A man-made organic compound; primarily used as a solvent   |
| 29.                              | Paraquat          | 0.01               |                 | 12   | NT   | ND      | NT | ND      | 0.001                             | Herbicide  |
| 30.                              | Pentachlorophenol | 0.06               |                 | 12   | NT   | ND      | NT | ND      | 0.00015                           | An organic compound; used as a pesticide and wood preservative (manufacture and use banned since the 1980's) |

| Schedule 24 – Organic Parameters |   | MAC or IMAC (mg/L) | Objective AO/OG | O.Reg. 170/03 Required Frequency of Testing (months) | 2018 | 2019 |    |    | Reportable Detection Limit (mg/L) | Comments   |
|----------------------------------|---|--------------------|-----------------|--|------|------|----|----|-----------------------------------|--|
|                                  |   |                    |                 |  | Q4   | Q1   | Q2 | Q3 |                                   |  |
| 31.                              | Phorate                                 | 0.002              |                 | 12   | NT   | ND   | NT | ND | 0.00001                           | Insecticide  |
| 32.                              | Picloram                                | 0.19               |                 | 12   | NT   | ND   | NT | ND | 0.001                             | Herbicide  |
| 33.                              | Polychlorinated Biphenyls (PCB)         | 0.003              |                 | 12   | NT   | ND   | NT | ND | 0.00004                           | An organic compound; used in electrical equipment and as a fire retardant (use has been banned since the 1980's) |
| 34.                              | Prometryne                              | 0.001              |                 | 12   | NT   | ND   | NT | ND | 0.00003                           | Herbicide  |
| 35.                              | Simazine                                | 0.01               |                 | 12   | NT   | ND   | NT | ND | 0.00001                           | Herbicide  |
| 36.                              | Terbufos                                | 0.001              |                 | 12   | NT   | ND   | NT | ND | 0.00001                           | Insecticide  |
| 37.                              | Tetrachloroethylene (perchloroethylene) | 0.01               |                 | 12   | NT   | ND   | NT | ND | 0.00035                           | An organic compound; used as a solvent in dry cleaning and metal cleaning industries                             |
| 38.                              | 2,3,4,6-Tetrachlorophenol               | 0.10               | 0.001           | 12   | NT   | ND   | NT | ND | 0.00014                           | An organic compound; currently used mainly as a wood preservative  |
| 39.                              | Triallate                               | 0.23               |                 | 12   | NT   | ND   | NT | ND | 0.00001                           | Herbicide  |
| 40.                              | Trichloroethylene                       | 0.05               |                 | 12   | NT   | ND   | NT | ND | 0.00044                           | Volatile organic compound; used in metal degreasing operations and chemical manufacturing                        |



| Schedule 24 – Organic Parameters |  | MAC or IMAC (mg/L) | Objective AO/OG | O.Reg. 170/03 Required Frequency of Testing (months) | 2018 | 2019 |    |    | Reportable Detection Limit (mg/L) | Comments   |
|----------------------------------|--|--------------------|-----------------|--|------|------|----|----|-----------------------------------|--|
|                                  |  |                    |                 |  | Q4   | Q1   | Q2 | Q3 |                                   |  |
| 41.                              | 2,4,6-Trichlorophenol                      | 0.005              | 0.002           | 12   | NT   | ND   | NT | ND | 0.00025                           | Volatile organic compound; used in the manufacture of pesticides                 |
| 42.                              | Trifluralin                                | 0.045              |                 | 12   | NT   | ND   | NT | ND | 0.00002                           | Herbicide  |
| 43.                              | Vinyl Chloride                             | 0.002              |                 | 12   | NT   | ND   | NT | ND | 0.00017                           | Volatile organic compound; Used in making PVC (polyvinyl chloride) plastic items |
| 44.                              | 2 methyl-4-chlorophenoxyacetic acid (MCPA) | 0.1 *              |                 | 12   | NT   | ND   | NT | ND | 0.00012                           | Herbicide<br>*The MAC takes effect on January 1, 2017.                           |

| Additional Organic Parameters<br>(Removed from Schedule 24 as of<br>January 1, 2016) |  | MAC<br>or<br>IMAC<br>(mg/L) | Objective<br>AO/OG | Required<br>Frequency<br>of Testing<br>(months) | 2018 | 2019 |    |    | Reportable<br>Detection<br>Limit<br>(mg/L) | Comments               |
|--|--|-----------------------------|--------------------|---|------|------|----|----|--|------------------------|
|  |  |                             |                    |   | Q4   | Q1   | Q2 | Q3 |  |                        |
| 1.   | Aldicarb   |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Insecticide            |
| 2.   | Aldrin + Dieldrin                                      |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Insecticide            |
| 3.   | Bendiocarb   |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Insecticide            |
| 4.   | Chlordane (total)                                      |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Pesticide              |
| 5.   | Cyanazine  |                             |                    | NR  | NT   | ND   | NT | ND | 0.00003                                    | Herbicide              |
| 6.   | Dichlorodiphenyltrichloroethane<br>(DDT) + metabolites |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Insecticide            |
| 7.   | Dinoseb  |                             |                    | NR  | NT   | ND   | NT | ND | 0.00036                                    | Insecticide, Herbicide |
| 8.   | Heptachlor + Heptachlor Epoxide                        |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Insecticide            |
| 9.   | Lindane (Total)  |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Pesticide              |
| 10.  | Methoxychlor   |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Insecticide            |
| 11.  | Parathion  |                             |                    | NR  | NT   | ND   | NT | ND | 0.00002                                    | Insecticide            |
| 12.  | Temephos   |                             |                    | NR  | NT   | ND   | NT | ND | 0.00001                                    | Insecticide            |
| 13.  | 2,4,5-Trichlorophenoxy acetic acid<br>(2,4,5-T)        |                             |                    | NR  | NT   | ND   | NT | ND | 0.00022                                    | Herbicide              |

General Chemistry and Physical Parameters (Additional Regulatory and Contractual Testing)

| General Chemistry and Physical Parameters | MAC or IMAC (mg/L) | Objective AO/OG (mg/L) | O.Reg. 170/03 Required Frequency of Testing (months) | Contractual Required Frequency of Testing (months) | 2018 | 2019   |     |       | Reportable Detection Limit (mg/L) | Comments  |
|---|--------------------|------------------------|--|--|------|--------|-----|-------|-----------------------------------|---|
|   |                    |                        |  |  | Q4   | Q1     | Q2  | Q3    |                                   |   |
| Alkalinity (Total as CaCO <sub>3</sub> )  |                    | 30 – 500               | NR   | 6  | 98   | 98     | 100 | 93    | 2                                 | Q3 value is an average of 3 sample results  |
| Calcium                                   |                    |                        | NR   | 12   | NT   | 37.2   | NT  | NT    | 0.01                              |   |
| Chloride                                  |                    | 250                    | NR   | 12   | NT   | 18     | NT  | NT    | 0.04                              |   |
| Copper                                    |                    | 1                      | NR   | 12   | NT   | 0.0174 | NT  | NT    | 0.00002                           |   |
| Dissolved Organic Carbon (mg/L as C)      |                    | 5                      | NR   | 12   | 1.6  | 2.0    | 1.5 | 1.8   | 1                                 | Q3 value is an average of 3 sample results  |
| Dissolved Inorganic Carbon (mg/L as C)    |                    |                        | NR   | 6  | NT   | 0.026  | NT  | 0.022 | 1                                 |   |
| Ethylbenzene                              | 0.14               | 0.0016                 | NR   | 12   | NT   | ND     | NT  | NT    | 0.00033                           |   |
| Geosmin (ng/L)                            |                    | 4.0                    | NR   | Weekly as Required                                 | ND   | ND     | NT  | 0.5   | 3.0 ng/L                          | Geosmin is tested weekly from July 1-Oct 31. Results are expressed as the average per quarter when testing is required. |

| General Chemistry and Physical Parameters | MAC or IMAC (mg/L) | Objective AO/OG (mg/L) | O.Reg. 170/03 Required Frequency of Testing (months) | Contractual Required Frequency of Testing (months) | 2018    | 2019    |         |         | Reportable Detection Limit (mg/L) | Comments   |
|---|--------------------|------------------------|--|--|---------|---------|---------|---------|-----------------------------------|--|
|   |                    |                        |  |  | Q4      | Q1      | Q2      | Q3      |                                   |  |
| Haloacetic Acids                          | 0.080 *            | 0.060                  | NR   | 3  | 0.0060  | ND      | ND      | 0.0057  | 0.0053                            | The standard is expressed as a running annual average of quarterly samples measured at a point reflecting the maximum residence time in the distribution system.<br>Running annual average: 0.0029mg/L<br>*The MAC takes effect January 1, 2020. |
| Hardness (mg/L as CaCO <sub>3</sub> )     |                    | 80 – 100               | NR   | 12   | NT      | 132     | NT      | NT      | 0.05                              |  |
| Iron                                      |                    | 0.3                    | NR   | 12   | ND      | ND      | 0.012   | ND      | 0.007                             | Q3 value is an average of 3 sample results   |
| Lead                                      | 0.01               |                        | NR   | 6  | NT      | ND      | NT      | 0.00005 | 0.00001                           |  |
| Magnesium                                 |                    |                        | NR   | 12   | NT      | 9.41    | NT      | NT      | 0.001                             |  |
| Manganese                                 |                    | 0.05                   | NR   | 12   | 0.00010 | 0.00080 | 0.00060 | 0.00005 | 0.001                             | Q3 value is an average of 3 sample results   |
| Methane (L/m <sup>3</sup> )               |                    | 3L/m <sup>3</sup>      | NR   | 12   | NT      | ND      | NT      | NT      | 0.02 L/m <sup>3</sup>             |  |
| 2-Methylisoborneol (MIB) (ng/L)           |                    | 8.5                    | NR   | Weekly as Required                                 | ND      | ND      | NT      | ND      | 3.0 ng/L                          | MIB is tested weekly from July 1-Oct 31. Results are expressed as the average per quarter when testing is required.  |
| Nitrate                                   | 10.0               |                        | 3  | 3  | 0.193   | 0.208   | 0.207   | 0.128   | 0.006                             |  |

| General Chemistry and Physical Parameters | MAC or IMAC (mg/L) | Objective AO/OG (mg/L) | O.Reg. 170/03 Required Frequency of Testing (months) | Contractual Required Frequency of Testing (months) | 2018 | 2019    |    |    | Reportable Detection Limit (mg/L) | Comments  |
|---|--------------------|------------------------|--|--|------|---------|----|----|-----------------------------------|---|
|   |                    |                        |  |  | Q4   | Q1      | Q2 | Q3 |                                   |   |
| Nitrite                                   | 1.0                |                        | 3  | 3  | ND   | ND      | ND | ND | 0.003                             |   |
| Organic Nitrogen                          |                    | 0.15                   | NR   | 12   | NT   | 0.00007 | NT | NT | 0.05                              | Organic nitrogen is calculated by subtracting Total Ammonia from Total Kjeldahl Nitrogen  |
| Sodium                                    |                    | 200                    | 60   | 12   | NT   | 18.4    | NT | NT | 0.01                              | The local Medical Officer of Health must be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets. |
| Sulphate                                  |                    | 500                    | NR   | 12   | NT   | 40      | NT | NT | 0.04                              |   |
| Sulphide                                  |                    | 0.05                   | NR   | 12   | NT   | ND      | NT | NT | 0.006                             |   |
| Toluene                                   | 0.06               |                        | NR   | 12   | NT   | ND      | NT | NT | 0.00036                           |   |
| Total Dissolved Solids                    |                    | 500                    | NR   | 12   | NT   | 226     | NT | NT | 30                                |   |

| General Chemistry and Physical Parameters | MAC or IMAC (mg/L) | Objective AO/OG (mg/L) | O.Reg. 170/03 Required Frequency of Testing (months) | Contractual Required Frequency of Testing (months) | 2018  | 2019  |       |       | Reportable Detection Limit (mg/L) | Comments   |
|---|--------------------|------------------------|--|--|-------|-------|-------|-------|-----------------------------------|--|
|   |                    |                        |  |  | Q4    | Q1    | Q2    | Q3    |                                   |  |
| Trihalomethanes                           | 0.100              |                        | 3  | 3  | 0.017 | 0.008 | 0.013 | 0.022 | 0.00037                           | The standard is expressed as a running annual average of quarterly samples measured at a point reflecting the maximum residence time in the distribution system.<br>Running annual average: 0.015 mg/L |
| Xylenes                                   | 0.09               | 0.02                   | NR   | 12   | NT    | ND    | NT    | NT    | 0.00043                           |  |
| Zinc                                      |                    | 5.0                    | NR   | 12   | NT    | 0.015 | NT    | NT    | 0.001                             |  |

### Discussion of Analytical Results:

\* Indicator of adverse water quality

<sup>1</sup> In addition to the analytical samples noted above, chlorine residual, fluoride residual, and turbidity are measured on a continuous basis at the treatment facility using on-line instrumentation.

<sup>2</sup> Turbidity is both regulated by the Province of Ontario, and specified in accordance with the operating agreement with the Contracted Operating Authority. The turbidity reported (6 daily grab samples) is taken from the plant treated water discharge, which is not explicitly regulated in Provincial Regulations. Provincial Standards recommend an aesthetic objective of 5 NTU within a distribution system, and Provincial Regulation specifies a maximum of 1 NTU on individual filter effluent. The contract with the Operating Authority specifies a maximum turbidity of 0.2 NTU on treated water discharge from the water treatment plant and 0.1 NTU on individual filter effluent. There is currently no standard for combined filter effluent.

MAC or IMAC – Maximum Acceptable Concentration or Interim Maximum Acceptable Concentration; as identified in O.Reg. 169 (Ontario Drinking-Water Quality Standards) and the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines

AO/OG – Aesthetic Objective/Operational Guideline; as identified in the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines

NT – Not Tested during this quarter

NR – Not Required

ND – Not Detected