#### QMS Document Last Revision Date: January 5, 2018

#### Ontario Drinking-Water Systems Regulation O. Reg. 170-03 (s)11

#### **New Lowell 2019 Annual Report**

Drinking-Water System Number: 220003706

Drinking-Water System Name: New Lowell Drinking Water System

Drinking-Water System Owner: The Corporation of the Township of Clearview

Drinking-Water System Category: Large Municipal Residential Period being reported: January – December 2019

This Drinking-Water System does not serve more than 10,000 people.

This annual report is available to the public at no charge on the Clearview website at <a href="https://www.clearview.ca">www.clearview.ca</a>

The Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection at the Clearview Municipal Office 217 Gideon Street, Stayner and at the Clearview public works building at 5833 County Road 96, Stayner.

No other Drinking Water Systems receive their drinking water from this system.

This annual report is available free of charge on our web-site, and at the locations listed above. Notice of the report availability is provided on the Clearview web-site and on digital signboards throughout Clearview. Report availability is also advertised in the local newspaper.

#### Description of the system:

The water source for this system is three groundwater source wells and the Collingwood-New Tecumseth pipe-line. Disinfection is provided with sodium hypochlorite. Water storage is in a four-cell concrete reservoir with a total capacity of 1,770 m³. There are approximately 330 active service connections. There are 59 hydrants throughout the system for fire protection.

Chemicals used for treatment include 12% Sodium Hypochlorite.

Significant expenses incurred to install, repair, or replace equipment: None

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre.

| I | Incident Date | Parameter | Result | Unit of | Corrective | Corrective |
|---|---------------|-----------|--------|---------|------------|------------|
|   |               |           |        | Measure | Action     | Action     |
|   |               |           |        |         |            | Date       |
|   | N/A           | N/A       | N/A    | N/A     | N/A        | N/A        |

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Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

| Sample Type    | Number of<br>Samples | Range of E.Coli Or Fecal Results (min #)-(max #) CFU/100 mL | Range of Total Coliform Results (min #)-(max #) CFU/100 mL | Number<br>of HPC<br>Samples | Range of<br>HPC Results<br>(min #)-<br>(max #)<br>CFU/100 mL |
|----------------|----------------------|---|--|-----------------------------|--|
| Raw - Well # 1 | 53                   | 0 - 0   | 0 - 39   | 0                           | NA   |
| Raw – Well # 2 | 53                   | 0 - 0   | 0 - 0  | 0                           | NA   |
| Raw – Well # 6 | 0                    | N/A   | N/A  | 0                           | NA   |
| Treated        | 53                   | 0 - 0   | 0 - 0  | 53                          | <10 - 730  |
| Distribution   | 159                  | 0 - 0   | 0 - 0  | 41                          | <10 - 610  |

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

| Parameter       | Number of Grab<br>Samples | Range of Results<br>(min #)-(max #) | Unit of Measure |
|-----------------|---------------------------|-------------------------------------|-----------------|
| System Chlorine | 416                       | 0.26 - 1.22                         | mg/L            |
| Chlorine        | 8760                      | 0.29 - 1.32                         | mg/L            |
| Turbidity       |                           |                                     |                 |
| Raw - Well # 1  | 12                        | 0.88 - 1.82                         | NTU             |
| Raw – Well # 2  | 12                        | 0.89 - 1.80                         | NTU             |
| Raw - Well # 6  | 0                         | N/A                                 | NTU             |

NOTE: For continuous monitors use 8760 as the number of samples.

Summary of lead testing under Schedule 15.1 during this reporting period (applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

| Location<br>Type | Number of<br>Samples | Range of Lead<br>Results<br>(min#) - (max #) | Unit of<br>Measure | Number of<br>Exceedances |
|------------------|----------------------|--|--------------------|--------------------------|
| Plumbing         | 0                    | NA   | mg/L               | NA                       |
| Distribution     | 4                    | 0.00017 - 0.00088                            | mg/L               | NA                       |

### Samples required under Schedule 13

| Parameter                         | Last Date<br>Sampled | Result | Unit of Measure |
|-----------------------------------|----------------------|--------|-----------------|
| THM's (annual running average)    | 10/22/2019           | 0.0520 | mg/L            |
| HAA's<br>(annual running average) | 10/22/2019           | 0.0199 | mg/L            |
| Nitrate                           | 10/22/2019           | 0.3    | mg/L            |
| Nitrite                           | 10/22/2019           | <0.1   | mg/L            |
| Sodium                            | 09/24/2019           | 5.6    | mg/L            |
| Fluoride                          | 07/18/2017           | <0.1   | mg/L            |

The most recent sample results of Inorganic parameters tested during this reporting period

- Appendix - A

The most recent sample results of Organic parameters sampled during this reporting period. - Appendix - B

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards. N/A

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## APPENDIX A INORGANIC PARAMETERS (SCHEDULE 23)



**Final Report** 

C.O.C.: DWC191203S23A REPORT No. B19-39036

**Report To:** 

Clearview, Township of 217 Gideon Street, Box 200 Stayner Ontario L0M 1S0 Canada

**Attention:** Todd Patton

DATE RECEIVED: 03-Dec-19
DATE REPORTED: 09-Dec-19
SAMPLE MATRIX: Drinking Water

**Caduceon Environmental Laboratories** 

112 Commerce Park Drive Barrie ON L4N 8W8 Tel: 705-252-5743

Fax: 705-252-5746

JOB/PROJECT NO.: New Lowell

P.O. NUMBER: NL Schedule 23 WATERWORKS NO. 220003706

|               |       | ſ        | Client I.D.:        |                       | NL Tested   | ODWS        |           |
|---------------|-------|----------|---------------------|-----------------------|-------------|-------------|-----------|
|               |       |          | Sample I.D.:        |                       | B19-39036-1 | Objective   | Type of   |
|               |       |          | Date Collected:     |                       | 03-Dec-19   | Objective   | Objective |
| Parameter     | Units | R.L.     | Reference<br>Method | Date/Site<br>Analyzed |             |             |           |
| Antimony      | mg/L  | 0.0001   | EPA 200.8           | 06-Dec-19/O           | < 0.0001    | 0.006,0.006 | IMAC,MAC  |
| Arsenic       | mg/L  | 0.0001   | EPA 200.8           | 06-Dec-19/O           | 0.0003      | 0.025,0.01  | IMAC,MAC  |
| Barium        | mg/L  | 0.001    | SM 3120             | 05-Dec-19/O           | 0.013       | 1           | MAC       |
| Boron         | mg/L  | 0.005    | SM 3120             | 05-Dec-19/O           | 0.016       | 5,5         | IMAC,MAC  |
| Cadmium       | mg/L  | 0.000015 | EPA 200.8           | 06-Dec-19/O           | < 0.000015  | 0.005       | MAC       |
| Chromium      | mg/L  | 0.002    | SM 3120             | 05-Dec-19/O           | < 0.002     | 0.05        | MAC       |
| Mercury       | mg/L  | 0.00002  | SM 3112 B           | 06-Dec-19/O           | < 0.00002   | 0.001       | MAC       |
| Selenium      | mg/L  | 0.001    | EPA 200.8           | 06-Dec-19/O           | < 0.001     | 0.05        | MAC       |
| Uranium       | mg/L  | 0.00005  | EPA 200.8           | 06-Dec-19/O           | 0.00015     | 0.02        | MAC       |
| Free Chlorine | mg/L  |          | n/a                 | 03-Dec-19/B           | 0.89        |             |           |

<sup>1</sup> Free chlorine results provided by client.

**ODWS - Ontario Drinking Water Standards** 

AO - Aesthetic Objectives

IMAC - Interim Maximum Acceptable Concentration

MAC - Maximum Acceptable Concentration

OG - Operational Guidelines

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an \* Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Christine Burke Lab Manager

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

# APPENDIX B ORGANIC PARAMETERS (SCHEDULE 24)



**Final Report** 

C.O.C.: DWC180213V REPORT No. B18-03853

**Report To:** 

Clearview, Township of 217 Gideon Street, Box 200 Stayner Ontario L0M 1S0 Canada

**Attention:** Todd Patton

DATE RECEIVED: 13-Feb-18

DATE REPORTED: 05-Mar-18
SAMPLE MATRIX: Drinking Water

**Caduceon Environmental Laboratories** 

112 Commerce Park Drive Barrie ON L4N 8W8 Tel: 705-252-5743

Fax: 705-252-5746

JOB/PROJECT NO.: New Lowell

P.O. NUMBER:

WATERWORKS NO. 220003706

|   |       |       | Client I.D.:        |                       | NL Treated  | OD        | ws        |
|---|-------|-------|---------------------|-----------------------|-------------|-----------|-----------|
|   |       |       | Sample I.D.:        |                       | B18-03853-1 |           | Type of   |
|   |       |       | Date Collecte       | d:                    | 12-Feb-18   | Objective | Objective |
| Parameter                               | Units | R.L.  | Reference<br>Method | Date/Site<br>Analyzed |             | -         |           |
| Benzene                                 | μg/L  | 0.5   | EPA 8260            | 14-Feb-18/O           | < 0.5       | 1         | MAC       |
| Carbon Tetrachloride                    | μg/L  | 0.2   | EPA 8260            | 14-Feb-18/O           | < 0.2       | 2         | MAC       |
| Dichlorobenzene,1,2-                    | μg/L  | 0.1   | EPA 8260            | 14-Feb-18/O           | < 0.1       | 3,200     | AO,MAC    |
| Dichlorobenzene,1,4-                    | μg/L  | 0.2   | EPA 8260            | 14-Feb-18/O           | < 0.2       | 1,5       | AO,MAC    |
| Dichloroethane,1,2-                     | μg/L  | 0.1   | EPA 8260            | 14-Feb-18/O           | < 0.1       | 5         | IMAC      |
| Dichloroethene, 1,1-                    | μg/L  | 0.1   | EPA 8260            | 14-Feb-18/O           | < 0.1       | 14        | MAC       |
| Dichloromethane<br>(Methylene Chloride) | μg/L  | 0.3   | EPA 8260            | 14-Feb-18/O           | < 0.3       | 50        | MAC       |
| Monochlorobenzene<br>(Chlorobenzene)    | μg/L  | 0.2   | EPA 8260            | 14-Feb-18/O           | < 0.2       | 80        | MAC       |
| Tetrachloroethylene                     | μg/L  | 0.2   | EPA 8260            | 14-Feb-18/O           | < 0.2       | 10        | MAC       |
| Trichloroethylene                       | μg/L  | 0.1   | EPA 8260            | 14-Feb-18/O           | < 0.1       | 5         | MAC       |
| Vinyl Chloride                          | μg/L  | 0.2   | EPA 8260            | 14-Feb-18/O           | < 0.2       | 1         | MAC       |
| Alachlor                                | μg/L  | 0.3   | EPA 8270            | 02-Mar-18/K           | < 0.3       | 5         | IMAC      |
| Atrazine + Metabolites                  | μg/L  | 0.5   | Calc.               | 02-Mar-18/K           | < 0.5       | 5         | IMAC      |
| Azinphos-methyl                         | μg/L  | 1     | EPA 8270            | 02-Mar-18/K           | < 1         | 20        | MAC       |
| Benzo(a)pyrene                          | μg/L  | 0.005 | EPA 8270            | 02-Mar-18/K           | < 0.005     | 0.01      | MAC       |
| Bromoxynil                              | μg/L  | 0.3   | EPA 8270            | 02-Mar-18/K           | < 0.3       | 5         | IMAC      |
| Carbaryl                                | μg/L  | 3     | EPA 8270            | 02-Mar-18/K           | < 3         | 90        | MAC       |
| Carbofuran                              | μg/L  | 1     | EPA 8270            | 02-Mar-18/K           | < 1         | 90        | MAC       |
| Chlorpyrifos                            | μg/L  | 0.5   | EPA 8270            | 02-Mar-18/K           | < 0.5       | 90        | MAC       |
| Diazinon                                | μg/L  | 1     | EPA 8270            | 02-Mar-18/K           | < 1         | 20        | MAC       |
| Dicamba                                 | μg/L  | 5     | EPA 8270            | 02-Mar-18/K           | < 5         | 120       | MAC       |
| Dichlorophenol, 2,4-                    | μg/L  | 0.1   | EPA 8270            | 02-Mar-18/K           | < 0.1       | 0.3,900   | AO,MAC    |

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Test methods may be modified from specified reference method unless indicated by an \*

Site Analyzed=K-Kingston, W-Windsor, O-Ottawa, R-Richmond Hill, B-Barrie

Christine Burke Lab Manager



**Final Report** 

C.O.C.: DWC180213V REPORT No. B18-03853

**Report To:** 

Clearview, Township of 217 Gideon Street, Box 200 Stayner Ontario L0M 1S0 Canada

**Attention:** Todd Patton

DATE RECEIVED: 13-Feb-18

DATE REPORTED: 05-Mar-18

SAMPLE MATRIX: Drinking Water

**Caduceon Environmental Laboratories** 

112 Commerce Park Drive Barrie ON L4N 8W8 Tel: 705-252-5743

Fax: 705-252-5746

JOB/PROJECT NO.: New Lowell

P.O. NUMBER:

WATERWORKS NO. 220003706

|   |       |      | Client I.D.:        |                       | NL Treated  |   | ODWS     |           |
|---|-------|------|---------------------|-----------------------|-------------|---|----------|-----------|
|   |       |      | Sample I.D.:        |                       | B18-03853-1 |   |          | Type of   |
|   |       |      | Date Collecte       | d:                    | 12-Feb-18   | 0 | bjective | Objective |
| Parameter                                 | Units | R.L. | Reference<br>Method | Date/Site<br>Analyzed |             |   |          |           |
| Dichlorophenoxy acetic acid, 2,4- (2,4-D) | μg/L  | 5    | EPA 8270            | 02-Mar-18/K           | < 5         |   | 100      | IMAC      |
| Diclofop-methyl                           | μg/L  | 0.5  | EPA 8270            | 02-Mar-18/K           | < 0.5       |   | 9        | MAC       |
| Dimethoate                                | μg/L  | 1    | EPA 8270            | 02-Mar-18/K           | < 1         |   | 20       | IMAC      |
| Diquat                                    | μg/L  | 5    | EPA 549.1           | 22-Feb-18/K           | < 5         |   | 70       | MAC       |
| Diuron                                    | μg/L  | 5    | EPA 8270            | 02-Mar-18/K           | < 5         |   | 150      | MAC       |
| Glyphosate                                | μg/L  | 25   | EPA 547             | 22-Feb-18/K           | < 25        |   | 280      | IMAC      |
| Malathion                                 | μg/L  | 5    | EPA 8270            | 02-Mar-18/K           | < 5         |   | 190      | MAC       |
| Metolachlor                               | μg/L  | 3    | EPA 8270            | 02-Mar-18/K           | < 3         |   | 50       | IMAC      |
| Metribuzin                                | μg/L  | 3    | EPA 8270            | 02-Mar-18/K           | < 3         |   | 80       | MAC       |
| Paraquat                                  | μg/L  | 1    | EPA 549.1           | 22-Feb-18/K           | < 1         |   | 10       | IMAC      |
| Pentachlorophenol                         | μg/L  | 0.1  | EPA 8270            | 02-Mar-18/K           | < 0.1       |   | 30,60    | AO,MAC    |
| Phorate                                   | μg/L  | 0.3  | EPA 8270            | 02-Mar-18/K           | < 0.3       |   | 2        | IMAC      |
| Picloram                                  | μg/L  | 5    | EPA 8270            | 02-Mar-18/K           | < 5         |   | 190      | IMAC      |
| Poly-Chlorinated Biphenyls (PCB's)        | μg/L  | 0.05 | EPA 8082            | 20-Feb-18/K           | < 0.05      |   | 3        | IMAC      |
| Prometryne                                | μg/L  | 0.1  | EPA 8270            | 02-Mar-18/K           | < 0.1       |   | 1        | IMAC      |
| Simazine                                  | μg/L  | 0.5  | EPA 8270            | 02-Mar-18/K           | < 0.5       |   | 10       | IMAC      |
| Terbufos                                  | μg/L  | 0.3  | EPA 8270            | 02-Mar-18/K           | < 0.3       |   | 1        | IMAC      |
| Tetrachlorophenol, 2,3,4,6-               | μg/L  | 0.1  | EPA 8270            | 02-Mar-18/K           | < 0.1       |   | 1,100    | AO,MAC    |
| Triallate                                 | μg/L  | 10   | EPA 8270            | 02-Mar-18/K           | < 10        |   | 230      | MAC       |
| Trichlorophenol 2,4,6-                    | μg/L  | 0.1  | EPA 8270            | 02-Mar-18/K           | < 0.1       |   | 2,5      | AO,MAC    |
| Trifluralin                               | μg/L  | 0.5  | EPA 8270            | 02-Mar-18/K           | < 0.5       |   | 45       | IMAC      |
| MCPA                                      | μg/L  | 10   | EPA 8151A           | 01-Mar-18/K           | < 10        |   | 0.1      | MAC       |
| Free Chlorine                             | mg/L  |      | n/a                 | 13-Feb-18/B           | 0.72        |   |          |           |

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Site Analyzed=K-Kingston, W-Windsor, O-Ottawa, R-Richmond Hill, B-Barrie

Christine Burke Lab Manager



**Final Report** 

C.O.C.: DWC180213V REPORT No. B18-03853

Report To:

Caduceon Environmental Laboratories

Clearview, Township of112 Commerce Park Drive217 Gideon Street, Box 200Barrie ON L4N 8W8Stayner Ontario L0M 1S0 CanadaTel: 705-252-5743

Attention: Todd Patton Fax: 705-252-5746

DATE RECEIVED: 13-Feb-18 JOB/PROJECT NO.: New Lowell

DATE REPORTED: 05-Mar-18 P.O. NUMBER:

SAMPLE MATRIX: Drinking Water WATERWORKS NO. 220003706

|           |       |              | Client I.D.:        |                       | NL Treated |           | ODWS      |           |
|-----------|-------|--------------|---------------------|-----------------------|------------|-----------|-----------|-----------|
|           |       | Sample I.D.: |                     | B18-03853-1           |            | Objective | Type of   |           |
|           |       |              | Date Collected:     |                       | 12-Feb-18  | •         | Objective | Objective |
| Parameter | Units | R.L.         | Reference<br>Method | Date/Site<br>Analyzed |            |           |           |           |

<sup>1</sup> Free chlorine results provided by client.

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Christine Burke
Lab Manager