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

## **Colling-Woodlands 2021 Annual Report**

| Drinking-Water System Number:   | 260005398                                    |
|---------------------------------|--|
| Drinking-Water System Name:     | Colling-Woodlands Drinking Water System      |
| Drinking-Water System Owner:    | The Corporation of the Township of Clearview |
| Drinking-Water System Category: | Small Municipal Residential                  |
| Period being reported:          | January – December 2021                      |
|                                 |  |

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 <u>www.clearview.ca</u>.

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 website, and at the locations listed above. Notice of the report availability is provided on the Clearview website and social media accounts. Report availability is also advertised in the local newspaper.

Description of the system:

The water source for this system is five groundwater source wells. Disinfection is provided with sodium hypochlorite. Sodium Silicate is used to sequester iron. Water storage is in two celled concrete reservoir with a total capacity of 100 m<sup>3</sup>. There are approximately 83 active service connections. There are 8 hydrants for flushing purposes, this system does not support fire protection.

Chemicals used for treatment include 12% Sodium Hypochlorite and Sodium Silicate.

Significant expenses incurred to install, repair, or replace equipment:

- Sodium Hypochlorite pumps replacement \$8,550
- Raw Water flow meter replacements \$13,000
- Main Valve Replacements (3) \$7,500

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.

| Incident   | Parameter         | Result | Unit of   | Corrective Action | Corrective  |
|------------|-------------------|--------|-----------|-------------------|-------------|
| Date       |                   |        | Measure   |                   | Action Date |
| 09/15/2021 | Total<br>Coliform | 14     | CFU/100mL | Resample          | 09/15/2021  |
| 09/17/2021 | Total<br>Coliform | 2      | CFU/100mL | Resample          | 09/17/2021  |

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

| Sample Type    | Number<br>of | Range of<br>E.Coli Or | Range of<br>Total | Number<br>of HPC | Range of HPC<br>Results |
|----------------|--------------|-----------------------|-------------------|------------------|-------------------------|
|                | Samples      | Fecal                 | Coliform          | Samples          | (min #)-                |
|                |              | Results               | Results           |                  | (max #)                 |
|                |              | (min #)-              | (min #)-          |                  |                         |
|                |              | (max #)               | (max #)           |                  | CFU/100 mL              |
|                |              | CFU/100 mL            | CFU/100 mL        |                  |                         |
| Raw – Well # 1 | 14           | 0 - 0                 | 0 - 7             | 0                | NA                      |
| Raw – Well # 2 | 13           | 0 - 0                 | 0 - 1             | 0                | NA                      |
| Raw – Well # 3 | 14           | 0 - 0                 | 0 - 2             | 0                | NA                      |
| Raw – Well # 4 | 13           | 0 - 0                 | 0 - 2             | 0                | NA                      |
| Raw – Well # 5 | 12           | 0 - 0                 | 0 - 0             | 0                | NA                      |
| Treated        | 0            | N/A                   | N/A               | 0                | N/A                     |
| Distribution   | 61           | 0 - 0                 | 0 - 14            | 52               | <10 - 60                |

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 | 104                       | 0.43 - 1.47                         | mg/L            |
| Chlorine        | 8760                      | 0.45 - 1.92                         | mg/L            |
| Turbidity       |                           |                                     |                 |
| Raw – Well # 1  | 12                        | 0.19 – 1.87                         | NTU             |
| Raw – Well # 2  | 12                        | 0.50 – 1.20                         | NTU             |
| Raw – Well # 3  | 12                        | 0.36 - 1.26                         | NTU             |
| Raw – Well # 4  | 12                        | 0.32 - 1.34                         | NTU             |
| Raw – Well # 5  | 12                        | 0.30 - 1.25                         | 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     | Number of | Range of Lead Results | Unit of | Number of   |
|--------------|-----------|-----------------------|---------|-------------|
| Туре         | Samples   | (min#) – (max #)      | Measure | Exceedances |
| Plumbing     | 0         | NA                    | mg/L    | NA          |
| Distribution | 0         | NA                    | mg/L    | NA          |

Samples required under Schedule 13

| Parameter                | Date Sampled | Result  | Unit of Measure |
|--------------------------|--------------|---------|-----------------|
| THM's                    | 2021         | 0.0138  | mg/L            |
| (annual running average) |              |         |                 |
| HAA's                    | 2021         | <0.0053 | mg/L            |
| (annual running average) |              |         |                 |
| Nitrate                  | 01/18/2021   | <0.1    | mg/L            |
|                          | 04/15/2021   | <0.1    |                 |
|                          | 07/15/2021   | <0.1    |                 |
|                          | 10/21/2021   | <0.1    |                 |
| Nitrite                  | 01/18/2021   | <0.1    | mg/L            |
|                          | 04/15/2021   | <0.1    |                 |
|                          | 07/15/2021   | <0.1    |                 |
|                          | 10/21/2021   | <0.1    |                 |
| Sodium                   | 11/25/2021   | 27.5    | mg/L            |
| Fluoride                 | 07/18/2017   | <0.1    | mg/L            |

Other sampling

| Parameter | Date Sampled | Result | Unit of Measure |
|-----------|--------------|--------|-----------------|
| Chloride  | 11/25/2021   | 42.8   | mg/L            |
| Hardness  | 08/28/2019   | 402    | 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. – Sodium 27.5 mg/L

APPENDIX A INORGANIC PARAMETERS (SCHEDULE 23)



# **CERTIFICATE OF ANALYSIS**

Client committed. Quality assured.

#### C.O.C.: DWC191008N

### **Final Report**

#### REPORT No. B19-32357

| Report To:                     | Caduceon Environmental Laboratories |
|--------------------------------|-------------------------------------|
| Clearview, Township of         | 112 Commerce Park Drive             |
| 217 Gideon Street, Box 200     | Barrie ON L4N 8W8                   |
| Stayner Ontario L0M 1S0 Canada | Tel: 705-252-5743                   |
| Attention: Todd Patton         | Fax: 705-252-5746                   |
| DATE RECEIVED: 08-Oct-19       | JOB/PROJECT NO.: Colling-Woodlands  |
| DATE REPORTED: 15-Oct-19       | P.O. NUMBER: CW Sched 23 2019       |
| SAMPLE MATRIX: Drinking Water  | WATERWORKS NO. 260005398            |

|               |       | ]        | Client I.D.:        |                       | CW Treated  | OD          | ws        |
|---------------|-------|----------|---------------------|-----------------------|-------------|-------------|-----------|
|               |       |          | Sample I.D.:        |                       | B19-32357-1 | Oblight     | Type of   |
|               |       |          | Date Collecte       | d:                    | 08-Oct-19   | Objective   | Objective |
| Parameter     | Units | R.L.     | Reference<br>Method | Date/Site<br>Analyzed |             |             |           |
| Antimony      | mg/L  | 0.0001   | EPA 200.8           | 09-Oct-19/O           | < 0.0001    | 0.006,0.006 | IMAC,MAC  |
| Arsenic       | mg/L  | 0.0001   | EPA 200.8           | 09-Oct-19/O           | 0.0001      | 0.025,0.01  | IMAC,MAC  |
| Barium        | mg/L  | 0.001    | SM 3120             | 15-Oct-19/O           | 0.327       | 1           | MAC       |
| Boron         | mg/L  | 0.005    | SM 3120             | 15-Oct-19/O           | 0.078       | 5,5         | IMAC,MAC  |
| Cadmium       | mg/L  | ).000015 | EPA 200.8           | 09-Oct-19/O           | < 0.000015  | 0.005       | MAC       |
| Chromium      | mg/L  | 0.002    | SM 3120             | 15-Oct-19/O           | < 0.002     | 0.05        | MAC       |
| Mercury       | mg/L  | 0.00002  | SM 3112 B           | 11-Oct-19/O           | < 0.00002   | 0.001       | MAC       |
| Selenium      | mg/L  | 0.001    | EPA 200.8           | 09-Oct-19/O           | < 0.001     | 0.05        | MAC       |
| Uranium       | mg/L  | 0.00005  | EPA 200.8           | 09-Oct-19/O           | < 0.00005   | 0.02        | MAC       |
| Free Chlorine | mg/L  |          | n/a                 | 08-Oct-19/B           | 1.20        |             |           |

1 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

APPENDIX B ORGANIC PARAMETERS (SCHEDULE 24)



# CERTIFICATE OF ANALYSIS

Client committed. Quality assured.

#### C.O.C.: DWTC210316G

## **Final Report**

#### REPORT No. B21-07300

| - |
|---|

|  |       |       | Client I.D.:        |                       | CW Treated | OD        | WS                   |
|--|-------|-------|---------------------|-----------------------|------------|-----------|----------------------|
|  |       |       | Sample I.D.:        | Sample I.D.:          |            |           | Type of<br>Objective |
|  |       |       | Date Collecte       | d:                    | 15-Mar-21  | Objective |                      |
| Parameter                                    | Units | R.L.  | Reference<br>Method | Date/Site<br>Analyzed | •          |           |                      |
| Alachlor                                     | µg/L  | 0.3   | EPA 8270            | 23-Mar-21/K           | < 0.3      | 5         | IMAC                 |
| Atrazine + Metabolites                       | µg/L  | 0.5   | Calc.               | 23-Mar-21/K           | < 0.5      | 5         | IMAC                 |
| Azinphos-methyl                              | µg/L  | 1     | EPA 8270            | 23-Mar-21/K           | < 1        | 20        | MAC                  |
| Benzo(a)pyrene                               | µg/L  | 0.006 | EPA 8270            | 23-Mar-21/K           | < 0.006    | 0.01      | MAC                  |
| Bromoxynil                                   | µg/L  | 0.5   | EPA 8270            | 23-Mar-21/K           | < 0.5      | 5         | IMAC                 |
| Carbaryl                                     | µg/L  | 3     | EPA 8270            | 23-Mar-21/K           | < 3        | 90        | MAC                  |
| Carbofuran                                   | µg/L  | 1     | EPA 8270            | 23-Mar-21/K           | < 1        | 90        | MAC                  |
| Chlorpyrifos                                 | µg/L  | 0.5   | EPA 8270            | 23-Mar-21/K           | < 0.5      | 90        | MAC                  |
| Diazinon                                     | µg/L  | 1     | EPA 8270            | 23-Mar-21/K           | < 1        | 20        | MAC                  |
| Dicamba                                      | µg/L  | 10    | EPA 8270            | 23-Mar-21/K           | < 10       | 120       | MAC                  |
| Dichlorophenol, 2,4-                         | µg/L  | 0.2   | EPA 8270            | 23-Mar-21/K           | < 0.2      | 0.3,900   | AO,MAC               |
| Dichlorophenoxy acetic<br>acid, 2,4- (2,4-D) | µg/L  | 10    | EPA 8270            | 23-Mar-21/K           | < 10       | 100       | IMAC                 |
| Diclofop-methyl                              | µg/L  | 0.9   | EPA 8270            | 23-Mar-21/K           | < 0.9      | 9         | MAC                  |
| Dimethoate                                   | µg/L  | 1     | EPA 8270            | 23-Mar-21/K           | < 1        | 20        | IMAC                 |
| Diquat                                       | µg/L  | 5     | EPA 549.1           | 25-Mar-21/K           | < 5        | 70        | MAC                  |
| Diuron                                       | µg/L  | 5     | EPA 8270            | 23-Mar-21/K           | < 5        | 150       | MAC                  |
| Glyphosate                                   | µg/L  | 25    | EPA 547             | 23-Mar-21/K           | < 25       | 280       | MAC                  |
| Malathion                                    | µg/L  | 5     | EPA 8270            | 23-Mar-21/K           | < 5        | 190       | MAC                  |
| Metolachlor                                  | µg/L  | 3     | EPA 8270            | 23-Mar-21/K           | < 3        | 50        | IMAC                 |
| Metribuzin                                   | µg/L  | 3     | EPA 8270            | 23-Mar-21/K           | < 3        | 80        | MAC                  |
| Paraquat                                     | µg/L  | 1     | EPA 549.1           | 25-Mar-21/K           | < 1        | 10        | IMAC                 |
| Pentachlorophenol                            | µg/L  | 0.2   | EPA 8270            | 23-Mar-21/K           | < 0.2      | 30,60     | AO,MAC               |
| Phorate                                      | µg/L  | 0.3   | EPA 8270            | 23-Mar-21/K           | < 0.3      | <br>2     | IMAC                 |

ODWS - Ontario Drinking Water Standards

AO - Aesthetic Objectives

IMAC - Interim Maximum Acceptable Concentration

MAC - Maximum Acceptable Concentration

ODWO - D-5-5 Objective

OG - Operational Guidelines WL - Warning Level - Sodium Restricted Diets

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

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Christine Burke Lab Manager



# CERTIFICATE OF ANALYSIS

Client committed. Quality assured.

#### C.O.C.: DWTC210316G

### **Final Report**

#### REPORT No. B21-07300

| Report To:                     | Caduceon Environmental Laboratories |  |  |  |
|--------------------------------|-------------------------------------|--|--|--|
| Clearview, Township of         | 112 Commerce Park Drive             |  |  |  |
| 217 Gideon Street, Box 200     | Barrie ON L4N 8W8                   |  |  |  |
| Stayner Ontario L0M 1S0 Canada | Tel: 705-252-5743                   |  |  |  |
| Attention: Todd Patton         | Fax: 705-252-5746                   |  |  |  |
| DATE RECEIVED: 16-Mar-21       | JOB/PROJECT NO.: Colling-Woodlands  |  |  |  |
| DATE REPORTED: 01-Apr-21       | P.O. NUMBER: Schedule 24            |  |  |  |
| SAMPLE MATRIX: Drinking Water  | WATERWORKS NO. 260005398            |  |  |  |

|                                    |       |      | Client I.D.:<br>Sample I.D.:<br>Date Collected: |                       | CW Treated  |  | ODWS      |           |
|------------------------------------|-------|------|---|-----------------------|-------------|--|-----------|-----------|
|                                    |       |      |   |                       | B21-07300-1 |  | Objective | Type of   |
|                                    |       |      |   |                       | 15-Mar-21   |  |           | Objective |
| Parameter                          | Units | R.L. | Reference<br>Method                             | Date/Site<br>Analyzed |             |  |           |           |
| Picloram                           | µg/L  | 15   | EPA 8270  | 23-Mar-21/K           | < 15        |  | 190       | IMAC      |
| Poly-Chlorinated Biphenyls (PCB's) | µg/L  | 0.05 | EPA 8082  | 19-Mar-21/K           | < 0.05      |  | 3         | IMAC      |
| Prometryne                         | µg/L  | 0.1  | EPA 8270  | 23-Mar-21/K           | < 0.1       |  | 1         | IMAC      |
| Simazine                           | µg/L  | 0.5  | EPA 8270  | 23-Mar-21/K           | < 0.5       |  | 10        | IMAC      |
| Terbufos                           | µg/L  | 0.5  | EPA 8270  | 23-Mar-21/K           | < 0.5       |  | 1         | IMAC      |
| Tetrachlorophenol, 2,3,4,6-        | µg/L  | 0.2  | EPA 8270  | 23-Mar-21/K           | < 0.2       |  | 1,100     | AO,MAC    |
| Triallate                          | µg/L  | 10   | EPA 8270  | 23-Mar-21/K           | < 10        |  | 230       | MAC       |
| Trichlorophenol 2,4,6-             | µg/L  | 0.2  | EPA 8270  | 23-Mar-21/K           | < 0.2       |  | 2,5       | AO,MAC    |
| Trifluralin                        | µg/L  | 0.5  | EPA 8270  | 23-Mar-21/K           | < 0.5       |  | 45        | IMAC      |
| MCPA                               | µg/L  | 10   | EPA 8151A                                       | 01-Apr-21/K           | < 10        |  | 100       | MAC       |

ODWS - Ontario Drinking Water Standards AO - Aesthetic Objectives IMAC - Interim Maximum Acceptable Concentration MAC - Maximum Acceptable Concentration ODWO - D-5-5 Objective OG - Operational Guidelines WL - Warning Level - Sodium Restricted Diets 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



### Client committed. Quality assured.

#### C.O.C.: DWTC210316GT

#### **Final Report**

#### REPORT No. B21-07302

**CERTIFICATE OF ANALYSIS** 

| Report To:                     | Caduceon Environmental Laboratories |  |  |  |
|--------------------------------|-------------------------------------|--|--|--|
| Clearview, Township of         | 112 Commerce Park Drive             |  |  |  |
| 217 Gideon Street, Box 200     | Barrie ON L4N 8W8                   |  |  |  |
| Stayner Ontario L0M 1S0 Canada | Tel: 705-252-5743                   |  |  |  |
| Attention: Todd Patton         | Fax: 705-252-5746                   |  |  |  |
| DATE RECEIVED: 16-Mar-21       | JOB/PROJECT NO.: Colling-Woodlands  |  |  |  |
| DATE REPORTED: 22-Mar-21       | P.O. NUMBER: Schedule 24            |  |  |  |
| SAMPLE MATRIX: Drinking Water  | WATERWORKS NO. 260005398            |  |  |  |

|   |       |      | Client I.D.:                    |                       | CW Treated  |  | OD        | ODWS      |  |
|---|-------|------|---------------------------------|-----------------------|-------------|--|-----------|-----------|--|
|   |       |      | Sample I.D.:<br>Date Collected: |                       | B21-07302-1 |  | Ohissting | Type of   |  |
|   |       |      |                                 |                       | 15-Mar-21   |  | Objective | Objective |  |
| Parameter                               | Units | R.L. | Reference<br>Method             | Date/Site<br>Analyzed |             |  |           |           |  |
| Benzene                                 | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 1         | MAC       |  |
| Carbon Tetrachloride                    | µg/L  | 0.2  | EPA 8260                        | 19-Mar-21/R           | < 0.2       |  | 2         | MAC       |  |
| Dichlorobenzene,1,2-                    | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 3,200     | AO,MAC    |  |
| Dichlorobenzene,1,4-                    | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 1,5       | AO,MAC    |  |
| Dichloroethylene,1,1-                   | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 14        | MAC       |  |
| Dichloroethane,1,2-                     | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 5         | IMAC      |  |
| Dichloromethane<br>(Methylene Chloride) | µg/L  | 5    | EPA 8260                        | 19-Mar-21/R           | < 5         |  | 50        | MAC       |  |
| Monochlorobenzene<br>(Chlorobenzene)    | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 80        | MAC       |  |
| Tetrachloroethylene                     | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 10        | MAC       |  |
| Trichloroethylene                       | µg/L  | 0.5  | EPA 8260                        | 19-Mar-21/R           | < 0.5       |  | 5         | MAC       |  |
| Vinyl Chloride                          | µg/L  | 0.2  | EPA 8260                        | 19-Mar-21/R           | < 0.2       |  | 1         | MAC       |  |

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Christine Burke Lab Manager