



OPTIONAL ANNUAL REPORT TEMPLATE

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| Drinking-Water System Number: | 220000425 |
| Drinking-Water System Name: | Lakeshore Drinking Water System |
| Drinking-Water System Owner: | Township of Huron Kinloss |
| Drinking-Water System Category: | Large Municipal Residential System |
| Period being reported: | January 01/2011 – December 31/2011 |

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|--|---|
| <p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [] No [X]</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Veolia Water Canada, 100 Cove Rd, Goderich, ON N7A 3Z2 Township of Huron Kinloss, Box 130, Ripley, ON N0G 2R0</p> </div> | <p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p> |
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Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

| Drinking Water System Name | Drinking Water System Number |
|-----------------------------------|-------------------------------------|
| Courtney Subdivision Dist. System | 260006295 |

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water? Yes [X] No []



Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method-Supplied report to the Township of Huron-Kinloss to notify residents.

Describe your Drinking-Water System

The Lakeshore water system is characterized as a “secure ground water” system and is classified as a large municipally owned water system. The plant and its equipment have a daily maximum capacity to deliver **12,000 cubic metres** of potable water to the Huron Kinloss Lakeshore community extending from Point Clark in the south to Huronville in the north and the sub system supplying the Courtney/Amberley Beach Rd. Subdivision subsystem in Ashfield Colborne Wawanosh.

The water sources are 5 secure deep bed rock wells. Two are located at the Point Clark well house, one Blairs Grove, one at Murdock Glen and one at Huronville South. The well house equipment is SCADA controlled from a central computer in Ripley. Each well house is equipped with well pumps, high lift pumps, iron sequestering, chlorinators, a chlorine contact reservoir and online monitoring.

The well houses, originally constructed in the early 1990’s, were upgraded in 2006 with chlorine contact facilities being added. Improvemens to the SCADA system were begun in 2007.

The production wells were drilled over a period of time. The oldest being well # 1 at Point Clarke in 1979, then well # 2 at Blairs Grove in 1982, well # 2 at Murdock Glen in 1992, well # 2 at Point Clark in 1994 and well # 2 at Huronville South in 1994. All production wells were inspected with a video camera in 2006. New well pumps and piping were installed in all the wells in 2006.

The attached distribution system is a combination of PVC and polyethylene water mains. Much of the system has been installed since 1992 and the systematic replacement plan of the old polyethylene pipe begun in that year continues with annual projects scheduled. In addition to the water mains and associated valves and hydrants the distribution system equipment includes a storage facility at Point Clark consisting of a standpipe containing approximately 1500 cubic metres of water. This structure also maintains system pressure for zone 1 of the distribution system. There are three main pressure zones on the Lakeshore system. Zones 2 and 3 have variable speed pumps to provide constant system pressure. All three pressure zones are connected by pressure regulation valves. Should zones 2 and 3 experience a complete pump failure limited system pressure would be maintained throughout the Laskeshore system by the Point Clark standpipe.

Maximum Water Taking – Point Clarke Facility – **3,273,120 L/day**
Blairs Grove Facility – **2,621,000 L/day**
Murdock Glen Facility – **1,814,400 L/day**
Huronville South Facility – **3,927,744 L/day**



List all water treatment chemicals used over this reporting period

Sodium Hypochlorite
Sodium Silicate

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

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

| Incident Date | Parameter | Result | Unit of Measure | Corrective Action | Corrective Action Date |
|----------------------|---|---------------|------------------------|---|-------------------------------|
| April 2/11 | High Chlorine Residuals directed to users. AWQI # 100410 | 8.50 | Mg/l | System flushed until residuals dropped to acceptable range. | April 4/11 |
| May 2/11 | Murdoch Glen-offline via Scada – no data record. AWQI # 100722 | | | Scada back o line after upgrades completed. | May 5/11 |
| June 20/11 | High Sodium AWQI # 101482 | 86.4 49.7 | Mg/l | Huron Kinloss notifies residence when tax bill sent out. | June 20/11 |



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

| | Number of Samples | Range of E.Coli Or Fecal Results (min #)-(max #) | Range of Total Coliform Results (min #)-(max #) | Number of HPC Samples | Range of HPC Results (min #)-(max #) |
|-------------------|-------------------|--|---|-----------------------|--------------------------------------|
| Raw Blair's Grove | 51 | 0 | 0 | | |
| Raw Murdock | 52 | 0 | 0 | | |
| Raw Pt. Clarke #1 | 54 | 0 - 4 | 0 | | |
| Raw Pt. Clarke #2 | 53 | 0 | 0 | | |
| Raw Huronville | 46 | 0 | 0 | | |
| Treated-BG | 52 | 0 | 0 | 52 | <10 - 20 |
| Treated-HV | 48 | 0 | 0 | 48 | <10 - 20 |
| Treated-MG | 52 | 0 | 0 | 52 | <10 - 10 |
| Treated-PC | 53 | 0 | 0 | 52 | <10 - 210 |
| Distribution | 362 | 0 | 0 | 207 | <10 - 30 |

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

| | Number of Grab Samples | Range of Results (min #)-(max #) |
|-------------------------------|------------------------|----------------------------------|
| Raw Turbidity BG | 40 | 0.070 – 0.490 NTU |
| Raw Turbidity MG | 40 | 0.130 – 0.630 NTU |
| Raw Turbidity HV | 59 | 0.070 – 3.750 NTU |
| Raw Turbidity PC # 2 | 44 | 0.080 – 0.860 NTU |
| Raw Turbidity PC # 1 | 44 | 0.090 – 2.290 NTU |
| Treated Chlorine BG | 8760 | 0.79 – 8.50 mg/l |
| Treated Chlorine MG | 8760 | 0.41 – 4.29 mg/l |
| Treated Chlorine HV | 8760 | 0.69 – 2.15 mg/l |
| Treated Chlorine PC | 8760 | 0.83 – 8.50 mg/l |
| Distribution Chlorine | 727 | 0.20 – 1.86 mg/l |
| Fluoride (If the DWS provides | | |

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



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| fluoridation) | | |
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NOTE: Record the unit of measure if it is **not** milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

| Date of legal instrument issued | Parameter | Date Sampled | Result | Unit of Measure |
|---------------------------------|-----------|--------------|--------|-----------------|
| N/A | | | | |
| | | | | |

Summary of Inorganic parameters tested during this reporting period or the most recent sample results-See Attached

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

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 Type | Number of Samples | Range of Lead Results (min#) – (max #) | Number of Exceedances |
|---------------|-------------------|--|-----------------------|
| Residential | 58 | 0.03 – 9.22 | None |
| Distribution | 16 | <0.02 – 0.52 | None |

Summary of Organic parameters sampled during this reporting period or the most recent sample results-See Attached



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

| Parameter | Result Value | Unit of Measure | Date of Sample |
|-----------------|--|-----------------|---|
| Sodium | 86.4 49.7 46.6 | Mg/L | June 14 June 28/11 |
| Fluoride | 2.22 1.76 2.04 2.15 2.43 1.91 2.26 2.29 | Mg/L | Aug 9/11 Nov 15/11 |