



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220002663
Drinking-Water System Name:	Lucknow Well Supply
Drinking-Water System Owner:	Township of Huron Kinloss
Drinking-Water System Category:	Large Municipal Residential System
Period being reported:	January 1/2008 – December 31/2008

<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, Gox 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 [X] 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
South Lucknow Dist. System	260003123

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 Kinless to notify residents.

Describe your Drinking-Water System

The Lucknow Well System consists of two drilled wells that separately feed into a common distribution system, and a water tower.

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-a 200 mm diameter 54.8 m deep drilled groundwater production well (well # 4) located near the intersection of Hamilton and Havelock Streets, equipped with a vertical turbine pump rated at 9.5 L/s, with 75 mm discharge line connected to the well pump header, with a 100 mm diameter turbine flow meter in the header; sodium hypochlorite disinfection facilities comprising a 230 L chemical storage tank, two chemical metering pumps (one duty, one spare), with automatic switchover and alarm, each capable of pumping 0.5 L/h; and a turbidity meter housed in a pump house

-a 203 mm diameter 58.8 deep drilled groundwater production well (well # 5) located on the intersection of Bob and Delhi Streets, equipped with a vertical turbine pump rated at 37.92 L/s at 66.1 m with a 150 mm diameter discharge line connected to the well pump header, with a 150 mm diameter turbine flow meter in the header, sodium hypochlorite disinfection facilities comprising a 230 L chemical storage tank, two chemical metering (one duty, one spare) pumps, with automatic switchover and alarm, each capable of pumping at 2.7 L/h; receptacle and manual transfer switch for a portable generator and a turbidity peter housed in a pump house;

-two chlorine residual analyzers connected to the contact main sample lines at each pumphouse, at the point of entry to the distribution system.

Max. allowed taken per minute (Well # 4-865 Litres) (Well # 5-2,275 Litres.)

Total allowable capacity per day 2435 M3

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite

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

Upgraded control system and added continuous data collection through a central SCADA system

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 7/08	Low Cl ₂ at Well House-Failure of Chlorine Feed	0.00	Mg/L	Blockage Cleared. System Flushed.	April 8/08
June 18/08	Low Cl ₂ leaving Well House. Chlorine injector partially blocked.	0.06	Mg/L	Blockage Cleared. System Flushed.	June 19/08
June 28/08	Low Cl ₂ at entry point. Injector partially blocked.	0.01	Mg/L	Blockage Cleared. System Flushed.	July 2/08
July 25/08	Low Cl ₂ at entry point.	0.14	Mg/L	Restored Chlorine Feed. System Flushed	Aug. 1/08
Aug. 5/08	Low chlorine reading. Blockage in the sample cell of the chlorine analyzer.	0.00	Mg/L	Blockage Cleared. System Flushed.	Aug. 6/08
Sept. 5/08	Low Chlorine Residual on reservoir.	0.03	Mg/L	Restored Chlorine Flushed System	Sept. 12/08
Sept. 9/08	Low Chlorine Residual.	0.00	Mg/L	Restored Chlorine. Flushed System	Sept. 12/08
Sept. 19/08	Negative Pressure due main repair.	0	PSI	Main Repaired. System Flushed. Two Sets Bacti's taken Resulting in "0" Bacteria.	Sept. 29/08
Oct. 11/08	Low Chlorine at Point of Entry-See Below	0.04	Mg/L	Monitor Cleaned. System Flushed	Oct. 20/08
Oct. 12/08	Low Chlorine Residual at point of	0.05	Mg/L	Monitor Cleaned. System	Oct. 20/08



	entry. Grit in Chlorine Flow Monitor.			Flushed.	
Oct. 31/08	Low Cl ₂ residual at entry point. Grit in chlorine flow sensor.	0.07	Mg/L	Gears Cleaned. System Flushed.	Nov. 10/08

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	106	0	0		
Treated	106	0	0	106	<10 - 270
Distribution	165	0	0	123	<10 - 380

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 Well # 4	34	0.100 – 0.700
Raw Turbidity Well # 5	32	0.130 – 0.640
Treated Turbidity Well # 4	354	0.080 – 0.990
Treated Turbidity Well # 5	365	0.089 – 0.845
Chlorine	8760	0 – 5.80
Fluoride (If the DWS provides fluoridation)		

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

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 Attachment

*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
Plumbing	80	0.04 – 1.78	None
Distribution	7	0.13 – 0.84	None

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

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
Fluoride Well # 4	1.76		Mar.14/08
	1.69		Apr. 22/08
	1.94		May 22/08
	1.76		Oct. 28/08
Fluoride Well # 5	1.70		Mar 14/08
	1.60		Apr. 22/08
	1.92		May 22/08
	1.65		Oct. 28/08

