



**OPTIONAL ANNUAL REPORT TEMPLATE**

<b>Drinking-Water System Number:</b>	<b>220002663</b>
<b>Drinking-Water System Name:</b>	Lucknow Well Supply
<b>Drinking-Water System Owner:</b>	Township of Huron Kinloss
<b>Drinking-Water System Category:</b>	Large Municipal Residential System
<b>Period being reported:</b>	January 1/2009 – December 31/2009

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ ] No [X]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></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><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [X] No [ ]</b></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:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
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 Kinloss 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.

Lucknow Well # 4, located near the intersection of Hamilton and Havelock Streets, is a 200 mm diameter 54.8 m deep drilled groundwater production well, equipped with a vertical turbine pump rated at 9.5 L/s with a 75 mm discharge line connected to the well pump header, and a 100 mm diameter turbine flow meter in the header; sodium hypochlorite disinfection facilities comprising a 100 L chemical storage tank, two chemical metering pumps (one duty, one standby), with automatic switchover and alarm, each capable of pumping 0.5 L/h; an on-line turbidity meter and an on-line chlorine analyzer connected to the contact main sample line at point of entry to the distribution system, all housed in a pump house.

Lucknow Well # 5, located on the intersection of Bob and Delhi Streets, is a 203 mm diameter 58.8 m deep drilled groundwater production well, equipped with a vertical turbine pump rated at 37.92 L/s at 66.1 m TDH \* with a 150 mm diameter discharge line connected to the well pump header, and a 150 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 standby), with automatic switchover and alarm, each capable of pumping at 2.7 L/h; receptacle and manual transfer switch for a portable generator, an on-line turbidity meter and an on-line chlorine analyzer connected to the contact main sample line at point of entry to the distribution system, all housed in a pump house.

Max. allowed taken per minute: (Well # 4 - 865 Litres) (Well # 5 - 2,275 Litres.)  
 Total allowable capacity per day: 2435 m<sup>3</sup>  
 \* until Dec. 16/09 – a new 40 hp (30 kW) submersible pump with 6-inch submersible motor was installed at 60.96 m TDH, air-line at 31.39 m.

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:**

**New redundant Auto-dialer**  
**New 40 hp (30 kW) submersible pump with 6-inch submersible motor was installed at 60.96 m TDH, air-line at 31.39 m.**  
**New 6-inch watermain installed on Clyde St.**

**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
Mar. 27/09	Low Cl <sub>2</sub> at Well # 4 POE - Failure of Cl <sub>2</sub> feed. AWQI # 87342	0.08	mg/L	Cl <sub>2</sub> pressure relief valve repaired, system flushed.	Mar. 27/09
May 16/09	Low Cl <sub>2</sub> at Well # 5 POE - Failure of Cl <sub>2</sub> feed.  Low Cl <sub>2</sub> at Well # 4 POE – Failure of Cl <sub>2</sub> feed and blocked injector. AWQI # 88096	0.01	mg/L	Cl <sub>2</sub> feed repaired, injector cleaned, system flushed. Cl <sub>2</sub> injector cleaned, Cl <sub>2</sub> pump tube replaced, system flushed.	May 16/09
May 20/09	Negative Pressure due main repair.  AWQI # 88143	0	psi	Main Repaired. System Flushed. Two Sets Bacti's taken Resulting in "0" Bacteria, Precautionary boil notice lifted.	May 25/09
June 12/09	Negative Pressure due main repair.  AWQI # 88523	0	psi	Main Repaired. System Flushed. Two Sets Bacti's taken Resulting in "0" Bacteria, Precautionary boil notice lifted.	June 19/09
Sept. 15/09	Low Cl <sub>2</sub> at Well # 5 POE – operator error. AWQI # 91235	0.03	mg/L	System flushed, operation reminder notices posted.	Sept. 15/09



Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
Oct. 6/09	Low Cl <sub>2</sub> at Well # 4 POE - Failure of Cl <sub>2</sub> feed. AWQI # 91704	0.02	mg/L	Cl <sub>2</sub> pressure relief valve repaired, system flushed.	Oct. 6/09
Dec. 11/09	Low Cl <sub>2</sub> at Well # 4 POE – failure of Cl <sub>2</sub> feed. AWQI # 92746	0.03	mg/L	Cl <sub>2</sub> pump tube replaced, system flushed.	Dec. 11/09

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 Well # 4	52	0	0		
Raw Well # 5	50	0	0		
Treated Well # 4	52	0	0	52	<10 – 40
Treated Well # 5	50	0	0	49	<10 – 40
Distribution	181	0	0	120	<10 – 70

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	47	0.08 – 0.56 NTU
Raw Turbidity Well # 5	47	0.10 – 1.5 NTU
Treated Turbidity Well # 4	8760	0.003 – 0.625 NTU
Treated Turbidity Well # 5	8760	0.045 – 0.500 NTU
On-line Chlorine Well # 4	8760	0.01 – 5.00 mg/L
On-line Chlorine Well # 5	8760	0.03 – 5.80 mg/L
Distribution	469	0.70 – 1.92 mg/L
Fluoride (If the DWS provides fluoridation)	N/A	

*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	N/A		
Distribution	N/A		

**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	1.63	mg/L	Dec. 1/09
Fluoride Well # 5	1.63	mg/L	Dec. 22/09

