

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	220001566
Drinking-Water System Name:	Stirling Well Supply System
Drinking-Water System Owner:	The Corporation of the Township of Stirling- Rawdon
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2009 to December 31, 2009

<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 [X] No []</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; margin-top: 10px;"> Public access/notice via the web. Public access/notice via Government Office. </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px;">NONE</div> </p> <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: <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px;">NONE</div> </p> <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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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
NONE	

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 [] 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 _____**

Describe your Drinking-Water System

A groundwater well supply system consisting of four wells - two wells are groundwater (#1 and #3) and two wells are groundwater under the direct influence of surface water (#4 and #5) with ultra violet disinfection for primary disinfection & sodium hypochlorite for secondary disinfection. This system has on-line, alarmed continuous monitoring of treated water free chlorine residual, distribution water free chlorine residual and treated water turbidity and is equipped with well pump lock outs in the event of a disinfection failure.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite – 12%

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

- WELL INSPECTION
- INJECTION VALVE
- FLOW MONITOR
- S/C TO STIRLING TO TROUBLE SHOOT WELL PUMP #4
- SUPPLY AND INSTALL SURGE PROTECTION AND SECONDARY LIGHTNING ARREST AT STIRLING WT
- TOJAN UV SWIFT 12 LAMPS
- REPAIR AND PAINT FLOORS AND DOORS
- SUPPLY AND INSTALL HI LEVEL FLOAT
- CALIBRATIONS - 4 MECHANICAL METERS
- ASCO SOLENOID VALVE
- REPAIR BACKFLOW PREVENTORS
- SUPPLY & INSTALL WATER PILOT PRESSURE TRANSMITTER FOR WELL #5

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
26-Oct-09	Total Coliform	1.0	CFU/100ml	Re-sample as directed by MOH	29-Oct-09

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

Location	Number of Samples	Range of E.Coli of Fecal Results (min #) - (max #)	Range of Total Coliform Results (min #) - (max #)	Number of HPC Samples	Range of HPC Results (min #) - (max #)
Raw, Well 1	52	0 – 0	0 – 460	14	0 – 16
Raw, Well 3	47	0 – 0	0 – 11	11	0 – 33
Raw, Well 4	51	0 – 9	0 – 660	14	0 – 2000
Raw, Well 5	52	0 – 6	0 – 760	14	0 – 360
Treated	52	0 – 0	0 – 0	52	0 – 105
Distribution	153	0 – 0	0 – 1	153	0 – 23

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 #)
Turbidity, Raw Well 1 (NTU)	12	0.09 – 0.75
Turbidity, Raw Well 3 (NTU)	11	0.10 – 0.53
Turbidity, Raw Well 4 (NTU)	12	0.06 – 0.48
Turbidity, Raw Well 5 (NTU)	12	0.05 – 0.26
Turbidity, Treated (NTU)	8760	0.0 – 2.0*
Chlorine, Treated	8760	0.0 – 4.33*
Chlorine, Distribution	8760	0.0 – 3.88*
Fluoride (If the DWS provides fluoridation)	n/a	n/a

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

* **Please note:** instrument spikes and dips recorded by on-line instrumentation were a result of air bubbles and various maintenance and calibration activities. Power interruptions may also cause an instrument reading to drop to zero. All events are reviewed for compliance with O. Reg. 170/03 and if warranted, are reported to the Ministry of Environment as Adverse Water Quality Incidents.

*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	Sample Location	Parameter	Date Sampled	Result	Unit of Measure
N/A					

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

Parameter	Sample Date	Result Value	Exceedance
Antimony: Sb (ug/L) - TW	2009/03/09	0.060	No
Arsenic: As (ug/L) - TW	2009/03/09	0.80	No
Barium: Ba (ug/L) - TW	2009/03/09	262.00	No
Boron: B (ug/L) - TW	2009/03/09	15.00	No
Cadmium: Cd (ug/L) - TW	2009/03/09	0.079	No
Chromium: Cr (ug/L) - TW	2009/03/09	0.80	No
Lead: Pb (ug/L)	2009/03/09	0.38	No
Mercury: Hg (ug/L) - TW	2009/03/09	< 0.020	No

Selenium: Se (ug/L) - TW	2009/03/09	< 1.00	No
Sodium: Na (mg/L) - TW	2008/03/06	21.20	Yes
Uranium: U (ug/L) - TW	2009/03/09	1.72	No
Fluoride Residual: Mean (mg/L) - TW	2008/07/07	0.14	No
Nitrite (mg/L) - TW	2009/01/05	< 0.005	No
Nitrite (mg/L) - TW	2009/04/06	< 0.005	No
Nitrite (mg/L) - TW	2009/07/06	< 0.005	No
Nitrite (mg/L) - TW	2009/10/05	< 0.005	No
Nitrate (mg/L) - TW	2009/01/05	1.48	No
Nitrate (mg/L) - TW	2009/04/06	1.31	No
Nitrate (mg/L) - TW	2009/07/06	1.79	No
Nitrate (mg/L) - TW	2009/10/05	1.31	No

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	66	0.05 – 2.77	No Exceedances
Distribution	12	0.27 – 0.97	No Exceedances

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

Parameter	Sample Date	Result Value	Exceedance
Alachlor (ug/L) - TW	2009/03/09	< 0.11	No
Aldicarb (ug/L) - TW	2009/03/09	< 0.30	No
Aldrin + Dieldrin (ug/L) - TW	2009/03/09	< 0.067	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2009/03/09	< 0.12	No
Azinphos-methyl (ug/L) - TW	2009/03/09	< 0.21	No
Bendiocarb (ug/L) - TW	2009/03/09	< 0.13	No
Benzene (ug/L) - TW	2009/03/09	< 0.37	No
Benzo(a)pyrene (ug/L) - TW	2009/03/09	< 0.0040	No
Bromoxynil (ug/L) - TW	2009/03/09	< 0.33	No
Carbaryl (ug/L) - TW	2009/03/09	< 0.16	No
Carbofuran (ug/L) - TW	2009/03/09	< 0.37	No
Carbon Tetrachloride (ug/L) - TW	2009/03/09	< 0.41	No
Chlordane: Total (ug/L) - TW	2009/03/09	< 0.11	No
Chlorpyrifos (ug/L) - TW	2009/03/09	< 0.18	No
Cyanazine (ug/L) - TW	2009/03/09	< 0.18	No
Diazinon (ug/L) - TW	2009/03/09	< 0.081	No
Dicamba (ug/L) - TW	2009/03/09	< 0.20	No
1,2-Dichlorobenzene (ug/L) - TW	2009/03/09	< 0.50	No
1,4-Dichlorobenzene (ug/L) - TW	2009/03/09	< 0.21	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L) - TW	2009/03/09	< 0.14	No
1,2-Dichloroethane (ug/L) - TW	2009/03/09	< 0.43	No

1,1-Dichloroethylene (ug/L) - TW	2009/03/09	< 0.41	No
Dichloromethane (ug/L) - TW	2009/03/09	< 0.34	No
2,4-Dichlorophenol (ug/L) - TW	2009/03/09	< 0.15	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2009/03/09	< 0.19	No
Diclofop-methyl (ug/L) - TW	2009/03/09	< 0.40	No
Dimethoate (ug/L) - TW	2009/03/09	< 0.12	No
Dinoseb (ug/L) - TW	2009/03/09	< 0.36	No
Diquat (ug/L) - TW	2009/03/09	< 1.00	No
Diuron (ug/L) - TW	2009/03/09	< 0.087	No
Glyphosate (ug/L) - TW	2009/03/09	< 6.00	No
Heptachlor+Hepachlor Epoxide (ug/L) - TW	2009/03/09	< 0.11	No
Lindane: (ug/L) - TW	2009/03/09	< 0.056	No
Malathion (ug/L) - TW	2009/03/09	< 0.091	No
Methoxychlor (ug/L) - TW	2009/03/09	< 0.14	No
Metolachlor (ug/L) - TW	2009/03/09	< 0.092	No
Metribuzin (ug/L) - TW	2009/03/09	< 0.12	No
Monochlorobenzene (ug/L) - TW	2009/03/09	< 0.58	No
Paraquat (ug/L) - TW	2009/03/09	< 1.00	No
Parathion (ug/L) - TW	2009/03/09	< 0.18	No
Pentachlorophenol (ug/L) - TW	2009/03/09	< 0.15	No
Phorate (ug/L) - TW	2009/03/09	< 0.11	No
Picloram (ug/L) - TW	2009/03/09	< 0.25	No
Polychlorinated Bichenysl(PCB) (ug/L) - TW	2009/03/09	< 0.040	No
Prometryne (ug/L) - TW	2009/03/09	< 0.23	No
Simazine (ug/L) - TW	2009/03/09	< 0.15	No
THM (ug/L) – DW	2009/01/05	22.00	No
THM (ug/L) – DW	2009/04/06	41.00	No
THM (ug/L) – DW	2009/06/06	24.00	No
THM (ug/L) – DW	2009/10/05	33.00	No
Temephos (ug/L) - TW	2009/03/09	< 0.31	No
Terbufos (ug/L) - TW	2009/03/09	< 0.12	No
Tetrachloroethylene (ug/L) - TW	2009/03/09	< 0.45	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2009/03/09	< 0.14	No
Triallate (ug/L) - TW	2009/03/09	< 0.10	No
Trichloroethylene (ug/L) - TW	2009/03/09	< 0.38	No
2,4,6-Trichlorophenol (ug/L) - TW	2009/03/09	< 0.25	No
2,4,5-Trichlorophenoxy acetic acid (ug/L) - TW	2009/03/09	< 0.22	No
Trifluralin (ug/L) - TW	2009/03/09	< 0.12	No
Vinyl Chloride (ug/L) - TW	2009/03/09	< 0.17	No

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
N/A			

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential) Small Municipal Non-Residential has been removed and Non Municipal Year Round Residential has been added.