

Part III Form 2
Section 11. ANNUAL REPORT.

Drinking-Water System Number:	220003528
Drinking-Water System	Capreol Wells and Distribution System
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2008-01-01 To 2008-12-31

<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 <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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>www.greatersudbury.ca TDS-Engineering Department</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text" value="0"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Number of Interested Authorities you report to: <input type="text" value="0"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></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
Valley Wells and Distribution System	210000737

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/Citizen Service Centre**
- Public access/notice via other method**

Describe your Drinking-Water System

This system was supplied by three groundwater wells owned and operated by the City of Greater Sudbury. The system is now supplied by two groundwater wells as #6 well was decommissioned Oct. 31, 2007. Wells are located directly beneath the respective pump houses. As per the Engineer's report, all three wells appear to be constructed in the same unconfined aquifer comprising mostly of sand and gravel. The system consists of duty wells M and J, and standby Well #6 (decommissioned Oct 31, 2007) housed in individual structures. M & J Wells now have a common discharge that undergoes treatment in the form of disinfection by chlorination, Ultra-Violet irradiation, fluoridation and corrosion control with Aquamag. M and J wells were upgraded to include Ultra-Violet irradiation as required for Log removal regulations. Continuous analyzers for free chlorine residual, fluoride, and UV equipment are monitored by a PLC. A standby power generator with an automatic transfer switch is located at well M. In the event that M & J fail, the Valley wells can supply water to the Capreol Boosters located onsite at M Well. In the event that the entire system of wells and boosters fail, Capreol will be supplied with water from the Valley Wells but at a reduced pressure. The distribution system was originally constructed in approximately 1929-1930 and currently serves approximately 3700 residents. The system consists of a combination of PVC, Cast Iron, and Duct tile piping.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Hydrofluosilicic Acid (20-30%) UN#1778, Polyphosphate

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

Rehabilitation of M-Well - \$78,000
 Capreol Wells Upgrades - \$92,000

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
2008/03/21	UV	0	mj/cm ²	Disinfectant restored/increased;	2008/03/21
2008/04/15	Micro sample not picked up				2008/04/23
2008/05/03	UV	0	mj/cm ²	Disinfectant restored/increased;	2008/05/12
2008/06/20	Fluoride	1.5-2.0	mg/L	no further action required	2008/06/20
2008/09/24	Chlorine Residual	0.13	mg/L	Flushing mains/pipes;	2008/09/30

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: GREEN'S LAKE J WELL					
	50	0 to 0	0 to 11		
Raw: GREEN'S LAKE M WELL					
	51	0 to 0	0 to 0		
Treated: CAPREOL WELL SUPPLY - WELL M&J					
	101	0 to 0	0 to 0	101	0 to 30
Distribution					
	209	0 to 0	0 to 0	54	0 to 10

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 #)
Chlorine Residual Distribution System	8,760	0.13 - 3.35 mg/L

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

CAPREOL WELL SUPPLY - WELL M&J

Turbidity	8,760	0.00 - 2.00	NTU
Chlorine	8,760	0.25 - 3.94	mg/L
Fluoride (If the DWS provides fluoridation)	8,760	0.00 - 2.00	mg/L

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 or order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Lead	2008/12/22	0.001	mg/L	No

CAPREOL WELL SUPPLY - WELL J

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2008/12/23	0.0005	mg/L	No
Arsenic	2008/12/23	0.001	mg/L	No
Barium	2008/12/23	0.0174	mg/L	No
Boron	2008/12/23	0.0072	mg/L	No
Cadmium	2008/12/23	0.0001	mg/L	No
Chromium	2008/12/23	0.0015	mg/L	No
Mercury	2008/12/23	0.00016	mg/L	No
Selenium	2008/12/23	0.001	mg/L	No
Uranium	2008/12/23	0.001	mg/L	No
Fluoride	2004/01/20	0.1	mg/L	No
Nitrate	2008/12/23	0.10	mg/L	No
Nitrite	2008/12/23	0.05	mg/L	No
Sodium	2005/12/19	13.30	mg/L	No

CAPREOL WELL SUPPLY - WELL M

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2008/12/23	0.0005	mg/L	No
Arsenic	2008/12/23	0.001	mg/L	No
Barium	2008/12/23	0.0426	mg/L	No
Boron	2008/12/23	0.007	mg/L	No
Cadmium	2008/12/23	0.0001	mg/L	No
Chromium	2008/12/23	0.001	mg/L	No
Mercury	2008/12/23	0.0001	mg/L	No
Selenium	2008/12/23	0.001	mg/L	No
Uranium	2008/12/23	0.001	mg/L	No
Fluoride	2004/01/20	0.1	mg/L	No

Nitrate	2008/01/14	0.10	mg/L	No
	2008/03/27	0.10	mg/L	No
	2008/06/03	0.10	mg/L	No
	2008/08/13	0.10	mg/L	No
	2008/10/22	0.10	mg/L	No
	2008/12/23	0.10	mg/L	No
Nitrite	2008/01/14	0.05	mg/L	No
	2008/03/27	0.05	mg/L	No
	2008/06/03	0.05	mg/L	No
	2008/08/13	0.05	mg/L	No
	2008/10/22	0.05	mg/L	No
	2008/12/23	0.05	mg/L	No
Sodium	2005/12/14	15.50	mg/L	No

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing	39	0.001 - 0.0037 mg/L	0
Distribution	11	0.001 - 0.001 mg/L	0

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
THM (NOTE: show latest annual average)	2008	0.0159	mg/L	No

CAPREOL WELL SUPPLY - WELL M

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2008/12/23	0.0004	mg/L	No
Aldicarb	2008/12/23	0.00068	mg/L	No
Aldrin + Dieldrin	2008/12/23	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2008/12/23	0.0009	mg/L	No
Azinphos-methyl	2008/12/23	0.0003	mg/L	No
Bendiocarb	2008/12/23	0.0014	mg/L	No
Benzene	2008/12/23	0.00025	mg/L	No
Benzo(a)pyrene	2008/12/23	0.00001	mg/L	No
Bromoxynil	2008/12/23	0.0005	mg/L	No
Carbaryl	2008/12/23	0.0014	mg/L	No
Carbofuran	2008/12/23	0.0014	mg/L	No
Carbon Tetrachloride	2008/12/23	0.00025	mg/L	No
Chlordane (Total)	2008/12/23	0.000004	mg/L	No
Chlorpyrifos	2008/12/23	0.0003	mg/L	No
Cyanazine	2008/12/23	0.0003	mg/L	No
Diazinon	2008/12/23	0.0003	mg/L	No

Dicamba	2008/12/23	0.0002	mg/L	No
1,2-Dichlorobenzene	2008/12/23	0.00025	mg/L	No
1,4-Dichlorobenzene	2008/12/23	0.00025	mg/L	No
(DDT) + metabolites	2008/12/23	0.000005	mg/L	No
1,2-Dichloroethane	2008/12/23	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2008/12/23	0.00025	mg/L	No
Dichloromethane	2008/12/23	0.00025	mg/L	No
2-4 Dichlorophenol	2008/12/23	0.000056	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2008/12/23	0.0002	mg/L	No
Diclofop-methyl	2008/12/23	0.0002	mg/L	No
Dimethoate	2008/12/23	0.0003	mg/L	No
Dinoseb	2008/12/23	0.00005	mg/L	No
Diquat	2008/12/23	0.007	mg/L	No
Diuron	2008/12/23	0.0068	mg/L	No
Glyphosate	2008/12/23	0.02	mg/L	No
Heptachlor + Heptachlor Epoxide	2008/12/23	0.000004	mg/L	No
Linadane (Total)	2008/12/23	0.0000005	mg/L	No
Malathion	2008/12/23	0.0003	mg/L	No
Methoxychlor	2008/12/23	0.0000013	mg/L	No
Metolachlor	2008/12/23	0.0002	mg/L	No
Metribuzin	2008/12/23	0.0002	mg/L	No
Monochlorobenzene	2008/12/23	0.00025	mg/L	No
Paraquat	2008/12/23	0.001	mg/L	No
Parathion	2008/12/23	0.0002	mg/L	No
Pentachlorophenol	2008/12/23	0.000056	mg/L	No
Phorate	2008/12/23	0.0003	mg/L	No
Picloram	2008/12/23	0.00005	mg/L	No
Polychlorinated Biphenyls(PCB)	2008/12/23	0.0000041	mg/L	No
Prometryne	2008/12/23	0.0002	mg/L	No
Simazine	2008/12/23	0.0003	mg/L	No
Temephos	2008/12/23	0.019	mg/L	No
Terbufos	2008/12/23	0.0002	mg/L	No
Tetrachloroethylene	2008/12/23	0.00025	mg/L	No
2,3,4,6-Tetrachlorophenol	2008/12/23	0.000056	mg/L	No
Triallate	2008/12/23	0.0002	mg/L	No
Trichloroethylene	2008/12/23	0.00025	mg/L	No
2,4,6-Trichlorophenol	2008/12/23	0.000056	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2008/12/23	0.00005	mg/L	No
Trifluralin	2008/12/23	0.0002	mg/L	No
Vinyl Chloride	2008/12/23	0.00025	mg/L	No

CAPREOL WELL SUPPLY - WELL J

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2008/12/23	0.0004	mg/L	No
Aldicarb	2008/12/23	0.00099	mg/L	No
Aldrin + Dieldrin	2008/12/23	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2008/12/23	0.0009	mg/L	No
Azinphos-methyl	2008/12/23	0.0003	mg/L	No
Bendiocarb	2008/12/23	0.002	mg/L	No
Benzene	2008/12/23	0.00025	mg/L	No

Benzo(a)pyrene	2008/12/23	0.00001	mg/L	No
Bromoxynil	2008/12/23	0.00051	mg/L	No
Carbaryl	2008/12/23	0.002	mg/L	No
Carbofuran	2008/12/23	0.002	mg/L	No
Carbon Tetrachloride	2008/12/23	0.00025	mg/L	No
Chlordane (Total)	2008/12/23	0.000004	mg/L	No
Chlorpyrifos	2008/12/23	0.0003	mg/L	No
Cyanazine	2008/12/23	0.0003	mg/L	No
Diazinon	2008/12/23	0.0003	mg/L	No
Dicamba	2008/12/23	0.0002	mg/L	No
1,2-Dichlorobenzene	2008/12/23	0.00025	mg/L	No
1,4-Dichlorobenzene	2008/12/23	0.00025	mg/L	No
(DDT) + metabolites	2008/12/23	0.000005	mg/L	No
1,2-Dichloroethane	2008/12/23	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2008/12/23	0.00025	mg/L	No
Dichloromethane	2008/12/23	0.00025	mg/L	No
2-4 Dichlorophenol	2008/12/23	0.000057	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2008/12/23	0.0002	mg/L	No
Diclofop-methyl	2008/12/23	0.0002	mg/L	No
Dimethoate	2008/12/23	0.0003	mg/L	No
Dinoseb	2008/12/23	0.000051	mg/L	No
Diquat	2008/12/23	0.007	mg/L	No
Diuron	2008/12/23	0.0099	mg/L	No
Glyphosate	2008/12/23	0.02	mg/L	No
Heptachlor + Heptachlor Epoxide	2008/12/23	0.000004	mg/L	No
Linadane (Total)	2008/12/23	0.00000072	mg/L	No
Malathion	2008/12/23	0.0003	mg/L	No
Methoxychlor	2008/12/23	0.0000019	mg/L	No
Metolachlor	2008/12/23	0.0002	mg/L	No
Metribuzin	2008/12/23	0.0002	mg/L	No
Monochlorobenzene	2008/12/23	0.00025	mg/L	No
Paraquat	2008/12/23	0.001	mg/L	No
Parathion	2008/12/23	0.0002	mg/L	No
Pentachlorophenol	2008/12/23	0.000057	mg/L	No
Phorate	2008/12/23	0.0003	mg/L	No
Picloram	2008/12/23	0.000051	mg/L	No
Polychlorinated Biphenyls(PCB)	2008/12/23	0.000006	mg/L	No
Prometryne	2008/12/23	0.0002	mg/L	No
Simazine	2008/12/23	0.0003	mg/L	No
Temephos	2008/12/23	0.028	mg/L	No
Terbufos	2008/12/23	0.0002	mg/L	No
Tetrachloroethylene	2008/12/23	0.00025	mg/L	No
2,3,4,6-Tetrachlorophenol	2008/12/23	0.000057	mg/L	No
Triallate	2008/12/23	0.0002	mg/L	No
Trichloroethylene	2008/12/23	0.00025	mg/L	No
2,4,6-Trichlorophenol	2008/12/23	0.000057	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2008/12/23	0.000051	mg/L	No
Trifluralin	2008/12/23	0.0002	mg/L	No
Vinyl Chloride	2008/12/23	0.00025	mg/L	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

(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)