

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 2009-01-01 To 2009-12-31

<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>
--	---

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

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 is supplied by two groundwater wells owned and operated by the City of Greater Sudbury. Wells are located directly beneath the respective pump houses. The wells are located east of MR84 and approximately 2 km south of Capreol, adjacent to Greens Lake. As per the Engineer's report, both wells appear to be constructed in the same unconfined aquifer comprising mostly of sand and gravel. M & J Wells 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 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

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
2009/02/15	Chlorine Residual	0.17	mg/L	Flushing mains/pipes;	2009/02/17
2009/03/17	Chlorine Residual	5.00	mg/L	Resample/Re-test;	2009/03/17
2009/03/17	Chlorine Residual	5.00	mg/L	Resample/Re-test;	2009/03/17
2009/07/10	Chlorine Residual	4.08	mg/L	none required	2009/07/10

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					
	52	0 to 0	0 to 0		
Raw: GREEN'S LAKE M WELL					
	52	0 to 0	0 to 0		
Treated: CAPREOL WELL SUPPLY - WELL M&J					
	104	0 to 0	0 to 0	104	0 to 1500
Distribution					
	215	0 to 0	0 to 0	54	0 to 1500

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	0.09 - 2.89 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	0.22 - 5.00	mg/L
Fluoride (If the DWS provides fluoridation)	8,760	0.00 - 1.13	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	2009/12/07	0.001	mg/L	No

CAPREOL WELL SUPPLY - WELL J

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2009/12/09	0.0005	mg/L	No
Arsenic	2009/12/09	0.0011	mg/L	No
Barium	2009/12/09	0.0184	mg/L	No
Boron	2009/12/09	0.0078	mg/L	No
Cadmium	2009/12/09	0.0001	mg/L	No
Chromium	2009/12/09	0.001	mg/L	No
Mercury	2009/12/09	0.00001	mg/L	No
Selenium	2009/12/09	0.001	mg/L	No
Uranium	2009/12/09	0.001	mg/L	No
Fluoride	2004/01/20	0.1	mg/L	No
Nitrate	2009/03/18	0.10	mg/L	No
	2009/06/17	0.10	mg/L	No
	2009/09/16	0.10	mg/L	No
	2009/12/16	0.10	mg/L	No
Nitrite	2009/03/18	0.05	mg/L	No
	2009/06/17	0.05	mg/L	No
	2009/09/16	0.05	mg/L	No
	2009/12/16	0.01	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	2009/12/09	0.0005	mg/L	No
Arsenic	2009/12/09	0.001	mg/L	No
Barium	2009/12/09	0.0382	mg/L	No
Boron	2009/12/09	0.0049	mg/L	No
Cadmium	2009/12/09	0.0001	mg/L	No
Chromium	2009/12/09	0.001	mg/L	No
Mercury	2009/12/09	0.00001	mg/L	No
Selenium	2009/12/09	0.001	mg/L	No
Uranium	2009/12/09	0.001	mg/L	No
Fluoride	2004/01/20	0.1	mg/L	No
Nitrate	2009/03/18	0.10	mg/L	No
	2009/06/17	0.10	mg/L	No
	2009/09/16	0.10	mg/L	No
	2009/12/16	0.10	mg/L	No
Nitrite	2009/03/18	0.05	mg/L	No
	2009/06/17	0.05	mg/L	No
	2009/09/16	0.05	mg/L	No
	2009/12/16	0.01	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	88	0.001 - 0.017 mg/L	1
Distribution	15	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)	2009	0.0199	mg/L	No

CAPREOL WELL SUPPLY - WELL M

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2009/12/09	0.00059	mg/L	No
Aldicarb	2009/12/09	0.00043	mg/L	No
Aldrin + Dieldrin	2009/12/09	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2009/12/09	0.0009	mg/L	No
Azinphos-methyl	2009/12/09	0.00036	mg/L	No
Bendiocarb	2009/12/09	0.00086	mg/L	No
Benzene	2009/12/09	0.00025	mg/L	No
Benzo(a)pyrene	2009/12/09	0.0000054	mg/L	No

Bromoxynil	2009/12/09	0.0005	mg/L	No
Carbaryl	2009/12/09	0.00086	mg/L	No
Carbofuran	2009/12/09	0.00086	mg/L	No
Carbon Tetrachloride	2009/12/09	0.00025	mg/L	No
Chlordane (Total)	2009/12/09	0.000004	mg/L	No
Chlorpyrifos	2009/12/09	0.00036	mg/L	No
Cyanazine	2009/12/09	0.00047	mg/L	No
Diazinon	2009/12/09	0.00036	mg/L	No
Dicamba	2009/12/09	0.0002	mg/L	No
1,2-Dichlorobenzene	2009/12/09	0.00025	mg/L	No
1,4-Dichlorobenzene	2009/12/09	0.00025	mg/L	No
(DDT) + metabolites	2009/12/09	0.000005	mg/L	No
1,2-Dichloroethane	2009/12/09	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2009/12/09	0.00025	mg/L	No
Dichloromethane	2009/12/09	0.00025	mg/L	No
2-4 Dichlorophenol	2009/12/09	0.001	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2009/12/09	0.0002	mg/L	No
Diclofop-methyl	2009/12/09	0.0002	mg/L	No
Dimethoate	2009/12/09	0.00024	mg/L	No
Dinoseb	2009/12/09	0.00005	mg/L	No
Diquat	2009/12/09	0.007	mg/L	No
Diuron	2009/12/09	0.0043	mg/L	No
Glyphosate	2009/12/09	0.02	mg/L	No
Heptachlor + Heptachlor Epoxide	2009/12/09	0.000004	mg/L	No
Linadane (Total)	2009/12/09	0.00000034	mg/L	No
Malathion	2009/12/09	0.00024	mg/L	No
Methoxychlor	2009/12/09	0.00000092	mg/L	No
Metolachlor	2009/12/09	0.00024	mg/L	No
Metribuzin	2009/12/09	0.00024	mg/L	No
Monochlorobenzene	2009/12/09	0.00025	mg/L	No
Paraquat	2009/12/09	0.001	mg/L	No
Parathion	2009/12/09	0.00036	mg/L	No
Pentachlorophenol	2009/12/09	0.001	mg/L	No
Phorate	2009/12/09	0.00036	mg/L	No
Picloram	2009/12/09	0.00005	mg/L	No
Polychlorinated Biphenyls(PCB)	2009/12/09	0.0000024	mg/L	No
Prometryne	2009/12/09	0.00024	mg/L	No
Simazine	2009/12/09	0.00059	mg/L	No
Temephos	2009/12/09	0.012	mg/L	No
Terbufos	2009/12/09	0.00036	mg/L	No
Tetrachloroethylene	2009/12/09	0.00025	mg/L	No
2,3,4,6-Tetrachlorophenol	2009/12/09	0.001	mg/L	No
Triallate	2009/12/09	0.00059	mg/L	No
Trichloroethylene	2009/12/09	0.00025	mg/L	No
2,4,6-Trichlorophenol	2009/12/09	0.001	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2009/12/09	0.00005	mg/L	No
Trifluralin	2009/12/09	0.00059	mg/L	No
Vinyl Chloride	2009/12/09	0.00025	mg/L	No

CAPREOL WELL SUPPLY - WELL J

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2009/12/09	0.00058	mg/L	No
Aldicarb	2009/12/09	0.00047	mg/L	No
Aldrin + Dieldrin	2009/12/09	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2009/12/09	0.0009	mg/L	No
Azinphos-methyl	2009/12/09	0.00035	mg/L	No
Bendiocarb	2009/12/09	0.00094	mg/L	No
Benzene	2009/12/09	0.00025	mg/L	No
Benzo(a)pyrene	2009/12/09	0.0000059	mg/L	No
Bromoxynil	2009/12/09	0.0005	mg/L	No
Carbaryl	2009/12/09	0.00094	mg/L	No
Carbofuran	2009/12/09	0.00094	mg/L	No
Carbon Tetrachloride	2009/12/09	0.00025	mg/L	No
Chlordane (Total)	2009/12/09	0.000004	mg/L	No
Chlorpyrifos	2009/12/09	0.00035	mg/L	No
Cyanazine	2009/12/09	0.00047	mg/L	No
Diazinon	2009/12/09	0.00035	mg/L	No
Dicamba	2009/12/09	0.0002	mg/L	No
1,2-Dichlorobenzene	2009/12/09	0.00025	mg/L	No
1,4-Dichlorobenzene	2009/12/09	0.00025	mg/L	No
(DDT) + metabolites	2009/12/09	0.000005	mg/L	No
1,2-Dichloroethane	2009/12/09	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2009/12/09	0.00025	mg/L	No
Dichloromethane	2009/12/09	0.00025	mg/L	No
2-4 Dichlorophenol	2009/12/09	0.001	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2009/12/09	0.0002	mg/L	No
Diclofop-methyl	2009/12/09	0.0002	mg/L	No
Dimethoate	2009/12/09	0.00023	mg/L	No
Dinoseb	2009/12/09	0.00005	mg/L	No
Diquat	2009/12/09	0.007	mg/L	No
Diuron	2009/12/09	0.0047	mg/L	No
Glyphosate	2009/12/09	0.02	mg/L	No
Heptachlor + Heptachlor Epoxide	2009/12/09	0.000004	mg/L	No
Linadane (Total)	2009/12/09	0.00000035	mg/L	No
Malathion	2009/12/09	0.00023	mg/L	No
Methoxychlor	2009/12/09	0.00000092	mg/L	No
Metolachlor	2009/12/09	0.00023	mg/L	No
Metribuzin	2009/12/09	0.00023	mg/L	No
Monochlorobenzene	2009/12/09	0.00025	mg/L	No
Paraquat	2009/12/09	0.001	mg/L	No
Parathion	2009/12/09	0.00035	mg/L	No
Pentachlorophenol	2009/12/09	0.001	mg/L	No
Phorate	2009/12/09	0.00035	mg/L	No
Picloram	2009/12/09	0.00005	mg/L	No
Polychlorinated Biphenyls(PCB)	2009/12/09	0.0000029	mg/L	No
Prometryne	2009/12/09	0.00023	mg/L	No
Simazine	2009/12/09	0.00058	mg/L	No
Temephos	2009/12/09	0.013	mg/L	No
Terbufos	2009/12/09	0.00035	mg/L	No
Tetrachloroethylene	2009/12/09	0.00025	mg/L	No

2,3,4,6-Tetrachlorophenol	2009/12/09	0.001	mg/L	No
Triallate	2009/12/09	0.00058	mg/L	No
Trichloroethylene	2009/12/09	0.00025	mg/L	No
2,4,6-Trichlorophenol	2009/12/09	0.001	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2009/12/09	0.00005	mg/L	No
Trifluralin	2009/12/09	0.00058	mg/L	No
Vinyl Chloride	2009/12/09	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)