

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

Drinking-Water System Number:	260001026
Drinking-Water System Name:	Angus Well Supply System
Drinking-Water System Owner:	Corporation of the Township of Essa
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2004 – December 31, 2004

<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 <input checked="" type="checkbox"/> [X]</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"/> [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;"> Essa Municipal Office 5786 Simcoe Rd. 21 Utopia, Essa Twp, On. L0M 1T0 Website: www.essatownship.on.ca </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input style="width: 100px; height: 20px;" type="text"/></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: <input style="width: 100px; height: 20px;" type="text"/></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 Drinking-Water Systems, which receive all of their drinking water from your system:

Not applicable

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 [NA]

Indicate how you notified system users that your annual report is available, and is free of charge.

- [X] Public access/notice via the web
- [X] 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 Public Notice made on water bills

Describe your Drinking-Water System

The Angus Well Supply System, Treatment and Storage Works serving the Town of Angus includes:

The Mill Street Facility (II Water Distribution)

Consists of a single drilled groundwater well that can provide up to 3927 m³/day of good quality potable water. As groundwater is pumped from the well, chemical feed pumps are automatically activated to add sodium silicate (for iron sequestering) and sodium hypochlorite (for disinfection). Treated water is stored in an underground reservoir, with a capacity of 902m³. Flow is measured before entering the reservoir and as the treated water enters the distribution system. On-line monitoring equipment continuously monitors chlorine residual, turbidity and flows rates.

The McGeorge Facility (II Water Distribution)

Consists of Two drilled groundwater wells capable of providing up to 2627 m³/day potable water. As groundwater flows out of the (artesian) wells, pumps are automatically activated to add sodium silicate (for iron sequestering) and sodium hypochlorite (for disinfection). Treated water is stored in two underground reservoirs, with capacities of 95 m³ and 157 m³ respectively On-line monitoring equipment continuously monitors chlorine residual, turbidity and flows rates.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite 12% Solution NSF, Disinfection
Sodium Silicate, Iron Sequestering, NSF

Were any significant expenses incurred to?

- Install required equipment
 Repair required equipment
 Replace required equipment

Describe

Addition to the McGeorge WTP including bulk storage for Sodium Hypochlorite and Sodium silicate drums. New storage area also provides spill containment for treatment chemicals and diesel supply for auxiliary power.

New chemical feed pumps and associated appurtenances were purchased for the Mill and McGeorge facilities.

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	AWQI#	Result	Unit of Measure	Corrective Action	Corrective Action Date
Feb 4/04	Chlorine Residual	NA	<0.05	mg/L	Restore chlorination	Feb 4/04
March 31/04	Background	24432	407	Colonies /100ml	Resample	April 1/04
March 31/04	Background Total Coliform	24433	>2400	Colonies /100ml	Resample	April 1/04
March 31/04	Total Coliform	24433	2	Colonies /100ml	Resample	April 1/04
June 23/04	Total Coliform	28110	1	Colonies /100ml	Resample	June 23/04
August 25/04	Background	31747	1000	Colonies /100ml	Resample	August 25/04

Microbiological testing done under section 8-2 during this reporting period

Location	Number of Samples	Range of E.Coli or Fecal Results (# - #)	Range of Total Coliform Results (# - #)	Number of HPC Samples or Background Colony Counts	Range of HPC Results (##) or Background Colony Counts
Raw - 1	59	0 - 0	0 - 9	15	0 - 0
Raw - 2	59	0 - 0	0 - 7	15	0 - 2
Raw - 3	59	0 - 0	0 - 0	14	0 - 0
Treated -	59	0 - 0	0 - 0	59	0 - 0
Treated - 3	59	0 - 0	0 - 0	59	0 - 1
Distribution -	215	0 - 0	0 - 2	66	0 - 2400

Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

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

	Number of Grab Samples	Range of Results (#-#) McGeorge	Range of Results (#-#) Mill St.
Turbidity	8760	0.02/0.34 NTU	0.06/ 3.07 NTU
Chlorine	8760	0/3.75 mg/L	0.56/1.98 mg/L
Chlorine Residual Distribution System	527	0.46/1.73	
Fluoride (If the DWS provides fluoridation)	NA	NA	NA

*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.

Date of order or C of A	Parameter	Date Sampled	Result	Unit of Measure

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

Parameter	Sample Date	Result Value	Exceedance
Antimony: Sb (ug/L)	2003/08/25	0.60	No
Antimony: Sb (ug/L) - 3	2003/08/25	0.60	No
Arsenic: As (ug/L)	2003/08/25	2.00	No
Arsenic: As (ug/L) - 3	2003/08/25	2.00	No
Barium: Ba (ug/L)	2003/08/25	80.00	No
Barium: Ba (ug/L) - 3	2003/08/25	150.00	No
Boron: B (ug/L)	2003/08/25	22.00	No
Boron: B (ug/L) - 3	2003/08/25	25.00	No
Cadmium: Cd (ug/L)	2003/08/25	0.10	No
Cadmium: Cd (ug/L) - 3	2003/08/25	0.10	No
Chromium: Cr (ug/L)	2003/08/25	3.00	No
Chromium: Cr (ug/L) - 3	2003/08/25	3.00	No
Lead: Pb (ug/L)	2004/01/14	0.8	No
Mercury: Hg (ug/L)	2003/08/25	0.10	No
Mercury: Hg (ug/L) - 3	2003/08/25	0.10	No
Selenium: Se (ug/L)	2003/08/25	3.00	No
Selenium: Se (ug/L) - 3	2003/08/25	3.00	No
Sodium: Na (mg/L)	2003/08/25	20.70	Yes
Sodium: Na (mg/L) - 3	2003/08/25	22.40	Yes
Uranium: U (ug/L)	2003/08/25	0.05	No
Uranium: U (ug/L) - 3	2003/08/25	0.07	No
Fluoride Residual: Mean (mg/L)	2003/08/25	0.12	No
Fluoride Residual: Mean (mg/L) - 3	2003/08/25	0.10	No
Nitrite (mg/L)	2004/01/14	0.01	No
Nitrite (mg/L)	2004/04/05	0.008	No
Nitrite (mg/L)	2004/07/07	0.005	No
Nitrite (mg/L)	2004/10/07	0.005	No
Nitrate (mg/L)	2004/01/14	0.03	No
Nitrate (mg/L)	2004/04/05	0.02	No
Nitrate (mg/L)	2004/07/07	0.02	No

Nitrate (mg/L)

2004/10/07

0.01

No

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

Parameter	Sample Date	Result Value	Exceedance
Alachlor (ug/L)	2003/04/28	0.09	No
Alachlor (ug/L) - 3	2003/04/28	0.09	No
Aldicarb (ug/L)	2003/04/28	0.76	No
Aldicarb (ug/L) - 3	2003/04/28	0.76	No
Aldrin + Dieldrin (ug/L)	2003/04/28	0.05	No
Aldrin + Dieldrin (ug/L) - 3	2003/04/28	0.05	No
Atrazine + N-dealkylated metabolites (ug/L)	2004/04/28	0.43	No
Azinphos-methyl (ug/L)	2003/04/28	0.59	No
Azinphos-methyl (ug/L) - 3	2003/04/28	0.59	No
Bendiocarb (ug/L)	2003/04/28	0.27	No
Bendiocarb (ug/L) - 3	2003/04/28	0.27	No
Benzene (ug/L)	2003/04/28	0.36	No
Benzene (ug/L) - 3	2003/04/28	0.36	No
Benzo(a)pyrene (ug/L)	2003/08/25	0.004	No
Benzo(a)pyrene (ug/L) - 3	2003/08/25	0.004	No
Bromoxynil (ug/L)	2003/04/28	0.06	No
Bromoxynil (ug/L) - 3	2003/04/28	0.06	No
Carbaryl (ug/L)	2003/04/28	0.14	No
Carbaryl (ug/L) - 3	2003/04/28	0.14	No
Carbofuran (ug/L)	2003/04/28	0.14	No
Carbofuran (ug/L) - 3	2003/04/28	0.14	No
Carbon Tetrachloride (ug/L)	2003/04/28	0.34	No
Carbon Tetrachloride (ug/L) - 3	2003/04/28	0.34	No
Chlordane:Total (ug/L)	2003/04/28	0.20	No
Chlordane:Total (ug/L) - 3	2003/04/28	0.20	No
Chlorpyrifos (ug/L)	2003/04/28	1.20	No
Chlorpyrifos (ug/L) - 3	2003/04/28	1.20	No
Cyanazine (ug/L)	2003/04/28	0.08	No
Cyanazine (ug/L) - 3	2003/04/28	0.08	No
Diazinon (ug/L)	2003/04/28	0.41	No
Diazinon (ug/L) - 3	2003/04/28	0.41	No
Dicamba (ug/L)	2003/04/28	0.90	No
Dicamba (ug/L) - 3	2003/04/28	0.90	No
1,2-Dichlorobenzene (ug/L)	2003/04/28	0.56	No
1,4-Dichlorobenzene (ug/L)	2003/04/28	0.25	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L)	2003/04/28	0.46	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L) - 3	2003/04/28	0.46	No
1,2-Dichloroethane (ug/L)	2003/04/28	0.32	No
1,1-Dichloroethylene (ug/L)	2003/04/28	0.52	No
Dichloromethane (ug/L)	2003/04/28	1.17	No
Dichloromethane (ug/L) - 3	2003/04/28	1.17	No
2,4-Dichlorophenol (ug/L)	2003/04/28	0.15	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)	2003/04/28	0.33	No
Diclofop-methyl (ug/L)	2003/04/28	0.84	No
Diclofop-methyl (ug/L) - 3	2003/04/28	0.84	No
Dimethoate (ug/L)	2003/04/28	0.10	No
Dimethoate (ug/L) - 3	2003/04/28	0.10	No
Dinoseb (ug/L)	2003/04/28	0.42	No
Dinoseb (ug/L) - 3	2003/04/28	0.42	No
Diquat (ug/L)	2003/04/28	1.00	No
Diquat (ug/L) - 3	2003/04/28	1.00	No
Diuron (ug/L)	2003/04/28	0.66	No
Diuron (ug/L) - 3	2003/04/28	0.66	No
Glyphosate (ug/L)	2003/04/28	6.00	No
Glyphosate (ug/L) - 3	2003/04/28	6.00	No
Heptachlor+Hepachlor Epoxide (ug/L)	2003/04/28	0.20	No
Heptachlor+Hepachlor Epoxide (ug/L) - 3	2003/04/28	0.20	No
Lindane: (ug/L)	2003/04/28	0.13	No
Lindane: (ug/L) - 3	2003/04/28	0.13	No
Malathion (ug/L)	2003/04/28	0.37	No
Malathion (ug/L) - 3	2003/04/28	0.37	No
Methoxychlor (ug/L)	2003/04/28	0.64	No
Methoxychlor (ug/L) - 3	2003/04/28	0.64	No
Metolachlor (ug/L)	2003/04/28	0.58	No
Metolachlor (ug/L) - 3	2003/04/28	0.58	No

Metribuzin (ug/L)	2003/04/28	0.50	No
Metribuzin (ug/L) - 3	2003/04/28	0.50	No
Monochlorobenzene (ug/L)	2003/04/28	0.46	No
Monochlorobenzene (ug/L) - 3	2003/04/28	0.46	No
Paraquat (ug/L)	2003/04/28	1.00	No
Paraquat (ug/L) - 3	2003/04/28	1.00	No
Parathion (ug/L)	2003/04/28	1.20	No
Parathion (ug/L) - 3	2003/04/28	1.20	No
Pentachlorophenol (ug/L)	2003/04/28	0.15	No
Pentachlorophenol (ug/L) - 3	2003/04/28	0.15	No
Phorate (ug/L)	2003/04/28	0.73	No
Phorate (ug/L) - 3	2003/04/28	0.73	No
Picloram (ug/L)	2003/04/28	0.19	No
Picloram (ug/L) - 3	2003/04/28	0.19	No
Polychlorinated Bichenysl(PCB) (ug/L)	2003/04/28	0.04	No
Polychlorinated Bichenysl(PCB) (ug/L) - 3	2003/04/28	0.04	No
Prometryne (ug/L)	2003/04/28	0.16	No
Prometryne (ug/L) - 3	2003/04/28	0.16	No
Simazine (ug/L)	2003/04/28	0.18	No
Simazine (ug/L) - 3	2003/04/28	0.18	No
THM (ug/L)	2004/01/14	34.0	No
THM (ug/L)	2004/04/15	19.0	No
THM (ug/L)	2004/07/07	21.0	No
THM (ug/L)	2004/10/07	24.0	No
Temephos (ug/L)	2003/04/28	0.25	No
Temephos (ug/L) - 3	2003/04/28	0.25	No
Terbufos (ug/L)	2003/09/30	< 0.70	No
Terbufos (ug/L) - 3	2003/09/30	< 0.70	No
Tetrachloroethylene (ug/L)	2003/04/28	0.48	No
Tetrachloroethylene (ug/L) - 3	2003/04/28	0.48	No
2,3,4,6-Tetrachlorophenol (ug/L)	2003/04/28	0.14	No
Triallate (ug/L)	2003/04/28	0.14	No
Triallate (ug/L) - 3	2003/04/28	0.14	No
Trichloroethylene (ug/L)	2003/04/28	0.54	No
Trichloroethylene (ug/L) - 3	2003/04/28	0.54	No
2,4,6-Trichlorophenol (ug/L)	2003/04/28	0.25	No
2,4,5-Trichlorophenoxy acetic acid (ug/L)	2003/04/28	0.47	No
Trifluralin (ug/L)	2003/04/28	0.35	No
Trifluralin (ug/L) - 3	2003/04/28	0.35	No
Vinyl Chloride (ug/L)	2003/04/28	0.08	No
Vinyl Chloride (ug/L) - 3	2003/04/28	0.08	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)