



Drinking-Water Systems Regulation O.Reg. 170/03  
 Section 11 Annual Report

**System Information**

<b>Drinking Water System Name:</b>	Killaloe Water Treatment Plant
<b>Drinking Water System Number:</b>	220006026
<b>System Owner:</b>	Township of Killaloe, Hagarty and Richards
<b>Operating Authority:</b>	Ontario Clean Water Agency
<b>Drinking Water System Category:</b>	Large Municipal Residential
<b>Reporting Period:</b>	January 1, 2006 – December 31, 2006

**Summary Report (170/03 Schedule 22) will be available for inspection at:**

Township of Killaloe, Hagarty and Richards  
 1 John Street  
 Killaloe, ON  
 K0J 2A0

**List all Drinking Water Systems which receive all of their drinking water from your system:**

Name	Drinking Water System Number
No other systems receive water from this system	

**Provide a brief description of the system:**

Killaloe Water Treatment Plant is a single well, groundwater system equipped with greensand contactors that provide iron and manganese removal. Pre disinfection is provided using Ultraviolet light and post disinfection is provided by sodium hypochlorite. pH adjustment equipment is installed but not required or in service.

**What Treatment Chemicals were used during the reporting year:**

Chemical Name	Use	Supplier
Potassium Permanganate	Contactors	Cariox
Sodium Hypochlorite	Disinfection	D.H Jutzi

**Summary of any reports made to the Ministry under subsection 18 (1) of the Act or section 16-4 of Schedule 16:**

-There were no reports made in accordance with this regulation.

**Does your Drinking-Water System serve more than 10 000 people?**

YES

NO

**If yes, is your annual report available to the public at no charge on a web site on the internet?**

YES

NO

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

- Via Township of Killaloe, Hagarty and Richards internet website

**Regulatory Sample Results Summary**

**Microbiological Testing (170/03, Sch.10, Sch.11 or Sch.12):**

	# of E-coli Samples Taken	E-Coli Results (min-max)	# of Total Coliform Samples Taken	Total Coliform Results (min-max)	# of HPC Samples Taken	HPC Results (min-max)
Raw	52	0-0	52	0-2	13	0-7
Treated	52	0-0	52	0-0	51*	0-27
Distribution	108	0-0	108	0-0	108*	0-11

\*Laboratory did not test for HPC, Laboratory error

**Operational Testing (170/03, Sch.7, Sch.8 or Sch.9):**

NOTE: 8760 samples indicates an on-line analyzer

	# of grab samples taken	Range of Results (min # - max #)
Treated Turbidity	8760	0.04 – 0.98 NTU
Treated Turbidity	249	0.06 – 0.14 NTU
Treated Free Chlorine	8760	0.36 – 1.81 mg/L
Treated Free Chlorine	249	0.7 – 1.42 mg/L
Distribution Free Chlorine	8760	0.25 – 0.85 mg/L
Distribution Free Chlorine	108	1.03 – 0.25 mg/L
Fluoride	Fluoride is not added at this facility	

**Summary of additional samples:**

Legal Document	Date of Issuance	Parameter	Date Sampled	Result	Unit of measure
Certificate of Approval #4496-6BSK5K	13-May-05	Backwash Suspended Solids	24-Jan-06	3	mg/L
			21-Feb-06	3	mg/L
			28-Mar-06	2	mg/L
			18-Apr-06	6	mg/L
			25-May-06	3	mg/L
			20-Jun-06	3	mg/L
			18-Jul-06	7	mg/L
			15-Aug-06	4	mg/L
			19-Sep-06	5	mg/L
			17-Oct-06	<2.0	mg/L
			21-Nov-06	<2.0	mg/L
			19-Dec-06	2	mg/L
		Backwash pH	24-Jan-06	7.63	no units
			21-Feb-06	7.54	no units
			28-Mar-06	7.64	no units
			18-Apr-06	7.79	no units
			25-May-06	7.91	no units
			20-Jun-06	7.62	no units
			18-Jul-06	7.57	no units
			15-Aug-06	7.69	no units
			19-Sep-06	7.97	no units
			17-Oct-06	7.69	no units
			21-Nov-06	7.78	no units
19-Dec-06	7.99	no units			

**Summary of inorganic parameters tested or most recent sample result:**

MAC = Maximum Allowable Concentration as per O.Reg 169/03

Parameter	Sample Date	Result	Unit of Measure	Exceedence of MAC	Exceedence of ½ MAC
Antimony	20-Feb-06	<1.0	ug/L	no	no
Arsenic	20-Feb-06	<1.0	ug/L	no	no
Barium	20-Feb-06	50	ug/L	no	no
Boron	20-Feb-06	120	ug/L	no	no
Cadmium	20-Feb-06	<0.1	ug/L	no	no
Chromium	20-Feb-06	<0.1	ug/L	no	no
Lead	03-Jan-06	<0.001	ug/L	no	no
Mercury	20-Feb-06	<0.1	ug/L	no	no
Selenium	20-Feb-06	2	ug/L	no	no
Sodium	10-Jun-03	29.7	mg/L	no	no
Uranium	20-Feb-06	2	ug/L	no	No
Fluoride	08-Jul-03	0.4	mg/L	no	no
1 <sup>st</sup> Quarter Nitrite	03-Jan-06	<0.1	mg/L	no	no

2 <sup>nd</sup> Quarter Nitrite	04-Apr-06	<0.1	mg/L	no	no
3 <sup>rd</sup> Quarter Nitrite	04-Jul-06	<0.1	mg/L	no	no
4 <sup>th</sup> Quarter Nitrite	03-Oct-06	<0.1	mg/L	no	no
1 <sup>st</sup> Quarter Nitrate	03-Jan-06	<0.1	mg/L	no	no
2 <sup>nd</sup> Quarter Nitrate	04-Apr-06	<0.1	mg/L	no	no
3 <sup>rd</sup> Quarter Nitrate	04-Jul-06	<0.1	mg/L	no	no
4 <sup>th</sup> Quarter Nitrate	03-Oct-06	<0.1	mg/L	no	no

### Summary of Organic parameters tested or most recent result

MAC = Maximum Allowable Concentration as per O.Reg 169/03

BDL = Below the laboratory detection level

Parameter	Sample Date	Result	Unit of measure	Exceedence of MAC	Exceedence of ½ MAC
Alachlor	20-Feb-06	<0.5	ug/L	no	no
Aldicarb	20-Feb-06	<0.9	ug/L	no	BLD
Aldrin + Dieldrin	20-Feb-06	<0.012	ug/L	no	no
Atrazine + N-Dealkylated metabolites	20-Feb-06	<0.2	ug/L	no	no
Azinphos-methyl	20-Feb-06	<2.0	ug/L	no	no
Bendiocarb	20-Feb-06	<2.0	ug/L	no	no
Benzene	20-Feb-06	<0.5	ug/L	no	no
Benzo<a>pyrene	20-Feb-06	<0.01	ug/L	no	BLD
Bromoxynil	20-Feb-06	<0.5	ug/L	no	no
Carbaryl	20-Feb-06	<5.0	ug/L	no	no
Carbofuran	20-Feb-06	<5.0	ug/L	no	no
Carbon Tetrachloride	20-Feb-06	<0.5	ug/L	no	no
Chlordane (Total)	20-Feb-06	<0.018	ug/L	no	no
Chlorpyrifos	20-Feb-06	<1.0	ug/L	no	no
Cyanazine	20-Feb-06	<1.0	ug/L	no	no
Diazinon	20-Feb-06	<1.0	ug/L	no	no
Dicamba	20-Feb-06	<1.0	ug/L	no	no
1,2-Dichlorobenzene	20-Feb-06	<0.4	ug/L	no	no
1,4-Dichlorobenzene	20-Feb-06	<0.4	ug/L	no	no
Dichlorodiphenyltrichloroethane (DDT) + metabolites	20-Feb-06	<0.024	ug/L	no	no
1,2-Dichloroethane	20-Feb-06	<0.5	ug/L	no	no
1,1-Dichloroethylene (vinylidene chloride)	20-Feb-06	<0.5	ug/L	no	no
Dichloromethane	20-Feb-06	<4.0	ug/L	no	no
2,4-Dichlorophenol	20-Feb-06	<0.5	ug/L	no	no
2,4-Dichlorophenoxy acetic acid (2,4-D)	20-Feb-06	<1.0	ug/L	no	no
Diclofop-methyl	20-Feb-06	<0.9	ug/L	no	no
Dimethoate	20-Feb-06	<2.5	ug/L	no	no
Dinoseb	20-Feb-06	<1.0	ug/L	no	no
Diquat	20-Feb-06	<7.0	ug/L	no	no
Diuron	20-Feb-06	<10	ug/L	no	no
Glyphosate	20-Feb-06	<10	ug/L	no	no
Heptachlor + Heptachlor Epoxide	20-Feb-06	<0.012	ug/L	no	no

Lindane (Total)	20-Feb-06	<0.006	ug/L	no	no
Malathion	20-Feb-06	<5.0	ug/L	no	no
Methoxychlor	20-Feb-06	<0.024	ug/L	no	no
Metolachlor	20-Feb-06	<0.5	ug/L	no	no
Metribuzin	20-Feb-06	<5.0	ug/L	no	no
Monochlorobenzene	20-Feb-06	<0.2	ug/L	no	no
Paraquat	20-Feb-06	<1.0	ug/L	no	no
Parathion	20-Feb-06	<1.0	ug/L	no	no
Pentachlorophenol	20-Feb-06	<0.5	ug/L	no	no
Phorate	20-Feb-06	<0.5	ug/L	no	no
Picloram	20-Feb-06	<5.0	ug/L	no	no
Polychlorinated Biphenyls (PCB)	20-Feb-06	<0.1	ug/L	no	no
Prometryne	20-Feb-06	<0.25	ug/L	no	no
Simazine	20-Feb-06	<1.0	ug/L	no	no
THM (Treated) (NOTE: show latest annual average)	21-Mar-06	61.4	ug/L	no	no
THM (Distribution) (NOTE: show latest annual average)	10-Oct-06	88.4	ug/L	no	N/A
Temephos	20-Feb-06	<10	ug/L	no	no
Terbufos	20-Feb-06	<0.4	ug/L	no	no
Tetrachloroethylene	20-Feb-06	<0.3	ug/L	no	no
2,3,4,6-Tetrachlorophenol	20-Feb-06	<0.5	ug/L	no	no
Triallate	20-Feb-06	<1.0	ug/L	no	no
Trichloroethylene	20-Feb-06	<0.3	ug/L	no	no
2,4,6-Trichlorophenol	20-Feb-06	<0.5	ug/L	no	no
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	20-Feb-06	<1.0	ug/L	no	no
Trifluralin	20-Feb-06	<0.4	ug/L	no	no
Vinyl Chloride	20-Feb-06	<0.2	ug/L	no	no

## **Maintenance Summary**

### **Summary of expenses incurred for install, repair or replace**

<b>Brief Description</b>
Flow switch non-operational
Replace needle valves on singer valve
Install UPS miltronics in clearwell
Repair backflow preventors
Replace treated water jockey pump
Upgrades to SCADA system
Check vibrations in generator