



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220 008 104
Drinking-Water System Name:	Creighton Heights Water Supply System
Drinking-Water System Owner:	The Corporation of the Township of Hamilton
Drinking-Water System Category:	Large Municipal Residential-Water Treatment System Class 2
Period being reported:	January 1 st - December 31 st , 2018

<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;"> <p>8285 Majestic Hills Drive Cobourg, ON. K9A 4J7</p> </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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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

Three drilled wells are located on-site in front of the treatment plant. The treatment plant building houses treatment and pumping equipment, chemical feed systems, a filtration system for iron, manganese and turbidity removal/ control, filter residuals management system, ultraviolet disinfection equipment, methane removal equipment, reservoir, high lift pumping, stand-by diesel generator, instrumentation and control equipment, SCADA system, and associated electrical controls and appurtenances.

List all water treatment chemicals used over this reporting period

12% sodium hypochlorite
Potassium Permanganate
Sodium Thiosulphate

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

[Empty box for description and breakdown of monetary expenses]

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
Dec 28,2018	Loss of pressure			Temporary water service, BWA	BWA until watermain repaired and samples taken

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	158	0 - 0	0 -1	0	NA



Treated	53	0 - 0	0 - 0	53	0 - 320
Distribution	114	0 - 0	0 - 0	53	0 - 100

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	365	1.93 – 2.88 (chloramination) .12 – 2.54(free chlorine)*

*system free chlorinated from Oct 19 to Nov 16 for distribution maintenance

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	Parameter	Date Sampled	Result	Unit of Measure
08/18/16 Licence #139-102	Suspended solids	03/21/18	8	mg/l
		06/09/18	15.66	
		09/29/18	16.33	
		12/11/18	9.00	
08/18/16 Licence #139-102	Chlorine residual	03/21/18	.21	mg/l
		06/09/18	.41	
		09/29/18	.39	
		12/11/18	.12	

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	05/29/18	0.02<MDL	ug/l	no
Arsenic	“	0.2<MDL	“	“
Barium	“	28.6	“	“
Boron	“	54.0	“	“
Cadmium	“	0.003<MDL	“	“
Chromium	“	0.12	ug/l	no
*Lead	NA	NA	“	“
Mercury	05/29/18	.01<MDL	“	“
Selenium	“	.04< MDL	“	“
Sodium	06/05/17	27.2	mg/l	
Uranium	05/29/18	0.002<MDL	ug/l	“
Fluoride	06/05/17	.34	mg/l	“
Nitrite	03/19/18	.030	mg/l	“
	06/11/18	.020		
	09/10/18	.015		
	12/10/18	.018		



Nitrate	03/19/18	.026	mg/l	“
	06/11/18	.020		
	09/10/18	.010		
	12/10/18	.014		

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

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

Lead sampled according to Schedule D of Municipal Drinking Water Licence 139-102

Location Type	Date	Sample Location	pH	Alkalinitymg/l as CaCO3	Lead ug/l
Distribution	03/26/18	Van Luven	7.5	206	
		Hwy 45	7.4	202	
Distribution	10/01/18	Burwash	7.44	194	
		Hwy 45	7.40	202	

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

Parameter	Sample Date	Result Value	Units	Exceedance
Alachlor	05/29/18	.02<MDL	ug/l	no
Aldicarb	“	.02<MDL	“	“
Aldrin + Dieldrin	“	.01<MDL	“	“
Aldrin	“	.01<MDL	“	“
Dieldrin	“	.01<MDL	“	“
Atrazine + N-dealkylated metabolites	“	.01<MDL	“	“
Atrazine	“	.01<MDL	“	“
Azinphos-methyl	“	.05<MDL	“	“
Benzene	“	.32<MDL	“	“
Benzo(a)pyrene	“	.004<MDL	“	“
Bromoxynil	“	.33<MDL	“	“
Carbaryl	“	.05<MDL	“	“
Carbofuran	“	.01<MDL	“	“
Carbon Tetrachloride	“	.16<MDL	“	“
Chlordane (Total)	“	.01<MDL	“	“
Chlorpyrifos	“	.02<MDL	“	“
Cyanazine	“	.03<MDL	“	“
Desethyl atrazine	“	.01<MDL	“	“
Diazinon	“	.02<MDL	“	“
Dicamba	“	.20<MDL	“	“



1,2-Dichlorobenzene	“	.41<MDL	“	“
1,4-Dichlorobenzene	“	.36>MDL	“	“
1,2-Dichloroethane	“	.35<MDL	“	“
1,1-Dichloroethylene (vinylidene chloride)	“	.33<MDL	“	“
Dichloromethane	“	.35<MDL	“	“
2-4 Dichlorophenol	“	.15<MDL	“	“
2,4-Dichlorophenoxy acetic acid (2,4-D)	“	.19<MDL	“	“
Diclofop-methyl	“	.40<MDL	“	“
Dimethoate	“	.03<MDL	“	“
Diquat	“	1<MDL	“	“
Diuron	“	.03<MDL	“	“
Glyphosate	“	1<MDL	“	“
Haloacetic Acid HAA	03/19/18 06/11/18 09/10/18 12/10/18	6.6ug/L 5.6ug/L 5.1ug/L 5.5ug/L	“	“
Malathion	05/29/18	.02<MDL	“	“
Metolachlor	“	.01<MDL	“	“
Metribuzin	“	.02<MDL	“	“
Paraquat	“	1<MDL	“	“
Pentachlorophenol	“	.15<MDL	“	“
Phorate	“	.01<MDL	“	“
Picloram	“	1<MDL	“	“
Polychlorinated Biphenyls(PCB)	“	.04<MDL	“	“
Prometryne	“	.03<MDL	“	“
Simazine	“	.01<MDL	“	“
THM (NOTE: show latest annual average)	03/11/18 06/11/18 09/10/18 12/10/18	RAA 1.3ug/L	“	“
Terbufos	05/29/18	.01<MDL	“	“
Tetrachloroethylene	“	.35<MDL	“	“
2,3,4,6-Tetrachlorophenol	“	.20<MDL	“	“
Triallate	“	.01<MDL	“	“
Trichloroethylene	“	.44<MDL	“	“
2,4,6-Trichlorophenol	“	.25<MDL	“	“
Trifluralin	“	.02<MDL	“	“
Vinyl Chloride	“	.17<MDL	“	“