

2008 Annual Water Quality Report



Regulatory Reporting for Municipal Drinking Water Systems

Regulation 170/03



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	W260001968 Certificate #789
Drinking-Water System Name:	Richmond Hill Distribution System
Drinking-Water System Owner:	Town of Richmond Hill
Drinking-Water System Category:	Large Municipal Residential Distribution
Period being reported:	January 1, 2008 to December 31, 2008

<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 [X] No []</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> <ul style="list-style-type: none"> • Web Site www.richmondhill.ca • Town Hall, 225 East Beaver Creek 5th Floor, Engineering Department • Operations Centre, 1200 Elgin Mills Road East • Central Library 	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text" value="N/A"/></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 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>
---	---

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 [X]



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

The Engineering and Public Works Department operates and maintains a drinking water Distribution system. The water in this system originates in Lake Ontario., where it first tested and treated by the City of Toronto and the Regional Municipality of Peel. The Town of Richmond Hill receives the water from the Region of York and distributes it to consumers.

List all water treatment chemicals used over this reporting period

Water treatment is performed by the City of Toronto and the Regional Municipality of Peel

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

Repair and maintenance of the distribution system - \$1,700,000
Replacement of watermains - \$710,000

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
Feb. 25, 2008	Lead as Pb	0.0122	mg/L	Flushed watermain and resampled	February 26, 2008
March 20, 2008	Lead as Pb	0.0105	mg/L	Flushed watermain and resampled	March 25, 2008
April 15, 2008	Total Coliforms	Present	P/A	Flushed watermain and resampled	April 15, 2008
July 1, 2008	Total Coliforms	Present	P/A	Flushed watermain and resampled	July 1, 2008
July 3, 2008	Total Coliforms	Present	P/A	Flushed watermain and resampled	July 3, 2008
July 10, 2008	Total Coliforms	Present	P/A	Flushed watermain and resampled	July 10, 2008
July 24, 2008	Total Coliforms	Present	P/A	Flushed watermain and resampled	July 24, 2008



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					
Treated					
Distribution	1749	0-0	0-9	905	<1 to 600 CFU/ml

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 #)
Turbidity		
Chlorine	3528	0.26 to 1.41 mg/l
Fluoride (If the DWS provides fluoridation)		

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

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, 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 the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	December 22, 2008	0.0008	mg/L	No
Arsenic	December 22, 2008	0.0009	mg/L	No
Barium	December 22, 2008	0.0220	mg/L	No
Boron	December 22, 2008	0.020	mg/L	No
Cadmium	December 22, 2008	<0.0001	mg/L	No
Chromium	December 22, 2008	0.0003	mg/L	No
*Lead				
Mercury	December 22, 2008	<0.02	µg/L	No
Selenium	December 22, 2008	0.0008	mg/L	No
Sodium	December 22, 2008	14.7	mg/L	No
Uranium	December 22, 2008	0.0003	mg/L	No

Fluoride	December 22, 2008	0.49	mg/L	No
Nitrite	December 22, 2008	0.01	mg/L	No
Nitrate	December 22, 2008	0.46	mg/L	No

*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

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	285	<0.0001 mg/L - 0.108 mg/L	8
Distribution	196	<0.0001 mg/L – 0.0122	2

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Dec. 22/08	<0.4	µg/L	No
Aldicarb	Dec. 22/08	<6.0	µg/L	No
Aldrin + Dieldrin	Dec. 22/08	<0.006	µg/L	No
Atrazine + N-dealkylated metabolites	Dec. 22/08	<0.2	µg/L	No
Azinphos-methyl	Dec. 22/08	<0.3	µg/L	No
Bendiocarb	Dec. 22/08	<3.0	µg/L	No
Benzene	Dec. 22/08	<0.1	µg/L	No
Benzo(a)pyrene	Dec. 22/08	<0.005	µg/L	No
Bromoxynil	Dec. 22/08	<0.4	µg/L	No
Carbaryl	Dec. 22/08	<3.0	µg/L	No
Carbofuran	Dec. 22/08	<3.0	µg/L	No
Carbon Tetrachloride	Dec. 22/08	<0.2	µg/L	No
Chlordane (Total)	Dec. 22/08	<0.006	µg/L	No
Chlorpyrifos	Dec. 22/08	<0.2	µg/L	No
Cyanazine	Dec. 22/08	<0.3	µg/L	No
Diazinon	Dec. 22/08	<0.2	µg/L	No
Dicamba	Dec. 22/08	<0.4	µg/L	No
1,2-Dichlorobenzene	Dec. 22/08	<0.1	µg/L	No
1,4-Dichlorobenzene	Dec. 22/08	<0.1	µg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Dec. 22/08	<0.008	µg/L	No
1,2-Dichloroethane	Dec. 22/08	<0.1	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Dec. 22/08	<0.3	µg/L	No



Dichloromethane	Dec. 22/08	<0.5	µg/L	No
2-4 Dichlorophenol	Dec. 22/08	<0.4	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Dec.22/08	<0.8	µg/L	No
Diclofop-methyl	Dec.22/08	<0.4	µg/L	No
Dimethoate	Dec.22/08	<0.3	µg/L	No
Dinoseb	Dec.22/08	<0.5	µg/L	No
Diquat	Dec.22/08	<0.1	µg/L	No
Diuron	Dec.22/08	<3.0	µg/L	No
Glyphosate	Dec.22/08	<25.0	µg/L	No
Heptachlor + Heptachlor Epoxide	Dec.22/08	<0.008	µg/L	No
Lindane (Total)	Dec.22/08	<0.005	µg/L	No
Malathion	Dec.22/08	<0.2	µg/L	No
Methoxychlor	Dec.22/08	<0.009	µg/L	No
Metolachlor	Dec.22/08	<0.2	µg/L	No
Metribuzin	Dec.22/08	<0.3	µg/L	No
Monochlorobenzene	Dec.22/08	<0.1	µg/L	No
Paraquat	Dec.22/08	<0.1	µg/L	No
Parathion	Dec.22/08	<0.2	µg/L	No
Pentachlorophenol	Dec.22/08	<0.4	µg/L	No
Phorate	Dec. 22/08	<0.2	µg/L	No
Picloram	Dec.22/08	<0.7	µg/L	No
Polychlorinated Biphenyls(PCB)	Dec.22/08	<0.02	µg/L	No
Prometryne	Dec.22/08	<0.2	µg/L	No
Simazine	Dec.22/08	<0.2	µg/L	No
THM (NOTE: show latest annual average)	Nov.17/08	16.51	µg/L	No
Temephos	Dec.22/08	<3	µg/L	No
Terbufos	Dec.22/08	<0.2	µg/L	No
Tetrachloroethylene	Dec.22/08	<0.3	µg/L	No
2,3,4,6-Tetrachlorophenol	Dec.22/08	<0.5	µg/L	No
Triallate	Dec.22/08	<4.0	µg/L	No
Trichloroethylene	Dec.22/08	<0.1	µg/L	No
2,4,6-Trichlorophenol	Dec.22/08	<0.5	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Dec.22/08	<0.5	µg/L	No
Trifluralin	Dec.22/08	<0.006	µg/L	No
Vinyl Chloride	Dec.22/08	<0.2	µg/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