



2024 ANNUAL REPORT FOR WATER SYSTEMS

Part 1 – ANNUAL REPORT (as required by O. Reg. 170/03, Section 11)

Drinking-Water System Number:	210000666
Drinking-Water System Name:	Chalk River Drinking Water System
Drinking-Water System Owner:	Town of Laurentian Hills
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 – December 31, 2024

Complete if your Category is Large Municipal Residential or Small Municipal Residential	Complete for all other Categories
Does your Drinking-Water System serve more than 10,000 people? <input checked="" type="checkbox"/> No	Number of Designated Facilities served: n/a
Is your annual report available to the public at no charge on a web site on the Internet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Did you provide a copy of your annual report to all Designated Facilities you serve? <input type="checkbox"/> Yes <input type="checkbox"/> No
Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. MUNICIPAL OFFICE Town Office – Pt. Alexander #34465 Hwy 17	Number of Designated Facilities served: n/a Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? <input type="checkbox"/> Yes <input type="checkbox"/> No

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
n/a	

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?

N/A

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

<input checked="" type="checkbox"/> Public access/notice via the web	<input type="checkbox"/> Public access/notice via Municipal Office	<input type="checkbox"/> Public access/notice via a newspaper
<input checked="" type="checkbox"/> Public access/notice via Public Request	<input type="checkbox"/> Public access/notice via a Public Library	<input type="checkbox"/> Public access/notice via other method

Describe your Drinking Water System

The source of the Chalk River Drinking Water system is Corry Lake. Raw water is screened from the lake before being pumped to the water plant for treatment. The water treatment process includes chemically-assisted coagulation, flocculation and settling within a solids contact clarifier followed by filtration through sand and anthracite filters. Filtered water is then disinfected using sodium hypochlorite. Fluoride is



then added to the treated water. Water is pumped into the elevated water storage tower for disinfection contact time and then flows out to the distribution system.

List all water treatment chemicals used over this reporting period
pH adjustment – Soda Ash Primary Coagulant – PAX-XL Coagulant aid – Polymer Disinfection – Sodium Hypochlorite Fluoridation – Hydroflousilicic acid

Please provide a brief description and a breakdown of significant monetary expenses incurred
Replace 3 UPS devices New reference and temp probes for Fluoride at Tower Filter and media replacement

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	Corrective Action	Corrective Action Date
02/06/2024	THM	105.5	No Corrective Action	NA
03/11/2024	HAA	85.67	No Corrective Action	NA
06/05/2024	THM	106.75	No Corrective Action	NA
06/05/2024	HAA	84.25	No Corrective Action	NA
10/03/2024	THM	104.75	No Corrective Action	NA

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 Results (min #) - (max #)	Range of Total Coliform Results (min #) - (max #)	Number of HPC Samples	Range of HPC Results (min #) - (max #)
Raw	52	0-6	0-300	NA	NA
Treated	52	0	0	52	1-2
Distribution	156	0	0	52	1-2

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 #)	Units
Filter Effluent Turbidity-Filter #1 Unit has been offline since May 3, 2023	0	0.00-0.00	NTU
Filter Effluent Turbidity-Filter #2	8760	0.04-0.92	NTU
Chlorine-POE (Tower)	8760	0.69-1.52	mg/L
Distribution	469	0.30-1.26	mg/L
Fluoride (If the DWS provides fluoridation)	8760	0.10-0.79	mg/L

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	Range of Results	Unit of Measure
March 2,2021	Elevated Tank PH	Monthly	7.1-7.56	
March 2,2021	Elevated Tank Alkalinity	Monthly	21-31	mg/L

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	Jan 24/24	0.6 <MDL	µg/L	No
Arsenic	Jan 24/24	0.2 <MDL	µg/L	No
Barium	Jan 24/24	10.1	µg/L	No
Boron	Jan 24/24	3	µg/L	No
Cadmium	Jan 24/24	0.003 <MDL	µg/L	No
Chromium	Jan 24/24	0.18	µg/L	No
Lead-see results below				
Mercury	Jan 24/24	0.01 <MDL	µg/L	No
Selenium	Jan 24/24	0.04 <MDL	µg/L	No
Sodium	Jan 25/23	11.3	mg/L	No
Uranium	Jan 24/24	0.002	µg/L	No
Fluoride	Jan 25/23	0.65	mg/L	No
Nitrite	Jan 22/24	<0.003	mg/L	No
Nitrate	Jan 22/24	0.060	mg/L	No
Nitrite	May 23/24	<0.003	mg/L	No
Nitrate	May 23/24	0.079	mg/L	No
Nitrite	Aug 19/24	0.042	mg/L	No
Nitrate	Aug 19/24	0.066	mg/L	No
Nitrite	Oct. 23/24	<0.003	mg/L	No
Nitrate	Oct. 23/24	0.034	mg/L	No

ND = readings are below detectable limits

Summary of Lead Results during this reporting period Summer- (June 15/24-Oct 15/24) Winter- (Dec 15/23- April 15/24)				
Sampling Period	Range of Results (µg/L) from Residential Samples (# of Samples taken)	Non-residential locations	Distribution System	Any Reportable Incidents?
Winter	.0001-.0036 (2)	.00102-.00005 (1)	.00007 - .00012 (1)	NO
Summer	.00002-.00234 (2)	.00003-00098(1)	.00006-.00026 (1)	NO

*two samples taken per residential and non-residential address

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Jan 24/24	0.02 <MDL	µg/L	No
Atrazine + N-dealkylated metabolites	Jan 24/24	0.01 <MDL	µg/L	No
Azinphos-methyl	Jan 24/24	0.05 <MDL	µg/L	No
Benzene	Jan 24/24	0.32 <MDL	µg/L	No
Benzo(a)pyrene	Jan 24/24	0.004 <MDL	µg/L	No
Bromoxynil	Jan 24/24	0.33 <MDL	µg/L	No
Carbaryl	Jan 24/24	0.05 <MDL	µg/L	No
Carbofuran	Jan 24/24	0.01 <MDL	µg/L	No
Carbon Tetrachloride	Jan 24/24	0.17 <MDL	µg/L	No
Chlorpyrifos	Jan 24/24	0.02 <MDL	µg/L	No
Diazinon	Jan 24/24	0.02 <MDL	µg/L	No
Dicamba	Jan 24/24	0.20 <MDL	µg/L	No
1,2-Dichlorobenzene	Jan 24/24	0.41 <MDL	µg/L	No
1,4-Dichlorobenzene	Jan 24/24	0.36 <MDL	µg/L	No
1,2-Dichloroethane	Jan 24/24	0.35 <MDL	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan 24/24	0.33 <MDL	µg/L	No
Dichloromethane	Jan 24/24	0.35 <MDL	µg/L	No
2,4 Dichlorophenol	Jan 24/24	0.15 <MDL	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 24/24	0.19 <MDL	µg/L	No
Diclofop-methyl	Jan 24/24	0.40 <MDL	µg/L	No
Dimethoate	Jan 24/24	0.06 <MDL	µg/L	No
Diquat	Jan 24/24	1 <MDL	µg/L	No
Diuron	Jan 24/24	0.03 <MDL	µg/L	No
Glyphosate	Jan 24/24	1 <MDL	µg/L	No
HAA (four quarter avg)	Q1-Q4 2024	72.6	µg/L	No
Malathion	Jan 24/24	0.02 <MDL	µg/L	No
MCPA	Jan 24/24	0.00012 <MDL	mg/L	N/A
Metolachlor	Jan 24/24	0.01 <MDL	µg/L	No
Metribuzin	Jan 24/24	0.02 <MDL	µg/L	No
Monochlorobenzene	Jan 24/24	0.03 <MDL	µg/L	No

Paraquat	Jan 24/24	1 <MDL	µg/L	No
Pentachlorophenol	Jan 24/24	0.15 <MDL	µg/L	No
Phorate	Jan 24/24	0.01 <MDL	µg/L	No
Picloram	Jan 24/24	1 <MDL	µg/L	No
Polychlorinated Biphenyls(PCB)	Jan 24/24	0.04 <MDL	µg/L	No
Prometryne	Jan 24/24	0.03 <MDL	µg/L	No
Simazine	Jan 24/24	0.01 <MDL	µg/L	No
THM (NOTE: show latest annual average)	Q1-Q4 2024	99.5	µg/L	No
Terbufos	Jan 24/24	0.01 <MDL	µg/L	No
Tetrachloroethylene	Jan 24/24	0.35 <MDL	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan 24/24	0.20 <MDL	µg/L	No
Triallate	Jan 24/24	0.01 <MDL	µg/L	No
Trichloroethylene	Jan 24/24	0.44 <MDL	µg/L	No
2,4,6-Trichlorophenol	Jan 24/24	0.25 <MDL	µg/L	No
Trifluralin	Jan 24/24	0.02 <MDL	µg/L	No
Vinyl Chloride	Jan 24/24	0.17 <MDL	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	Sample Date	Result Value	Unit of Measure	ODWS Criteria
HAA	Q1-Q4 2024 RAA	72.6	µg/L	80 µg/L
THM	Q1-Q4 2024 RAA	99.5	µg/L	100 µg/L

Part 2 – SUMMARY REPORT (as required by O. Reg. 170/03, Schedule 22)

Non-Compliance with Legislations, Regulations, Approvals & Orders		
During this period, the Facility was operated in full compliance with the Act, the regulations and the Facility's approval, save and except for the following:		
Requirement	Actions Required	Actions Taken
No Harmful Algal Bloom plan in place	HAB plan was in place, just some revisions were required	Updated HAB plan
Drinking Water Works Permit not accurate	Update document (chemical pump, high lift pump)	Document updated

System Capability Assessment			
Comparison of Flow Rates (m ³ /d):			
Month	Average Flow	Maximum	Max. Instantaneous Flow (L/s)
January	316	419	10.9
February	309	372	8.8
March	299	432	8.8
April	319	439	8.8
May	390	524	8.6
June	399	558	8.5
July	419	518	8.6
August	409	574	8.7
September	372	499	8.7
October	321	408	9.0
November	339	569	10.6
December	350	394	9.8
AVERAGE	354	n/a	-
MAXIMUM	-	574	10.9
SYSTEM CAPACITY	1987	1987	23L/s
% CAPACITY	18%	29%	-