

# 2017 Annual Drinking Water System (DWS) Quality Report for Kleinburg DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O.Reg. 170/03

**Drinking Water System Number:** 220002360

**Drinking Water System Name:** Kleinburg DWS

**Drinking Water System Owner:** The Regional Municipality of York

**DWS Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II

**Reporting period:** Jan 1, 2017 - Dec 31, 2017

**The Kleinburg DWS serves approximately 6500 people**

This annual report is available to the public at no charge on the Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**Summary report required under O.Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Environmental Services Department  
17250 Yonge Street, Newmarket ON  
and online, at [york.ca/drinkingwater](http://york.ca/drinkingwater)

**List all Drinking Water Systems which receive their drinking water from the Kleinburg DWS:**

Vaughan Distribution System (260003097)

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public Requests at any time

## **Description of the Kleinburg DWS**

### **Introduction**

Kleinburg is a village in the City of Vaughan. Kleinburg DWS provides water from Lake Ontario through the York DWS. Two wells are maintained as an emergency backup water source. York Region operates the water supply, and the City of Vaughan maintains and distributes water to users. The Province governs the Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### **Raw water source**

Groundwater

### **Profile of water in distribution system**

Blended - Lake and Groundwater

### **Water treatment description**

Kleinburg DWS includes two wells, one storage facility and two booster pumping stations. Water is disinfected with chloramine. Sodium silicate is used to manage iron and manganese. The storage facility holds water. Pressure is maintained by the storage facility and the pumping stations. Operators test the water and inspect the process. Online analyzers continuously monitor the facilities. When analyzers detect an issue, the system pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system**

In 2017, water in Kleinburg was 100% pre-treated and York Region did not apply any treatment chemicals to the Kleinburg DWS. Well facilities have capability to apply chlorine (gas), ammonia solution for chloramination, and sodium silicate.

### **Brief description and breakdown of monetary expenses incurred**

\$1,891,170 for general maintenance and repair, one elevated tank re-coating, and well upgrades.

**Notices submitted under Section 18(1) of the Safe Drinking Water Act or Section 16-4 of O.Reg. 170/03 and reported to MOECC Spills Action Centre**

**Not Applicable**

There were no reported adverse water quality incidents or observations of improper disinfection that occurred in the Kleinburg DWS during 2017

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**Microbiological testing completed under Schedule 10 of O.Reg. 170/03**

\*For distribution samples collected under Schedule 10, refer to the local municipality

Parameter	Sample Source	No. of Samples	No. of Detections
E. coli	Raw	98	0
	Treated	4	0
Heterotrophic Plate Count	Treated	4	0
Total Coliforms	Raw	98	0
	Treated	4	0

**Operational testing completed under Schedule 7 of Regulation 170/03 during this reporting period**

\*8,760 is used as the number of samples for continuous analyzers

Parameter	Units	No. of Samples	Average	Minimum	Maximum
Chlorine	mg/L	8,760	1.68	0.49	2.61
Turbidity (Treated)	NTU	8,760	0.04	0.00	5.00

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater)

Parameter	Units	No. of Samples	Average	Minimum	Maximum
Fluoride	mg/L	1	0.610	0.61	0.61
Haloacetic Acids	mg/L	2	0.020	<0.02	<0.02
Trihalomethanes	mg/L	3	0.030	0.0187	0.0432

\*Lead testing under Schedule 15.1 is conducted by the Local Municipality - refer to Local Municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes

**Organic and inorganic parameter(s) that exceeded half the standard prescribed in Schedule 2 of O.Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**

There were no parameters that exceeded half the standard indicated above for the Kleinburg DWS during 2017

**Summary of inorganic parameters teste pursuant to Schedule 23 of O.Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater)

**Not Applicable**

Refer to previous reports for the most recent results

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**Summary of organic parameters tested pursuant to Schedule 24 of O.Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater)

Test Parameter	Units	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	mg/L	1	0.0003	<0.0003	<0.0003	0.014
1,2-(o-dcb) Dichlorobenzene	mg/L	1	0.0001	<0.0001	<0.0001	0.2
1,2-Dichloroethane	mg/L	1	0.0001	<0.0001	<0.0001	0.005
1,4-(p-dcb) Dichlorobenzene	mg/L	1	0.0001	<0.0001	<0.0001	0.005
Benzene	mg/L	1	0.0001	<0.0001	<0.0001	0.005
Carbon Tetrachloride	mg/L	1	0.0002	<0.0002	<0.0002	0.005
Dichloromethane	mg/L	1	0.0010	<0.001	<0.001	0.05
Monochlorobenzene	mg/L	1	0.0001	<0.0001	<0.0001	0.08
Tetrachloroethylene (perchloroethylene)	mg/L	1	0.0003	<0.0003	<0.0003	0.03
Trichloroethylene	mg/L	1	0.0001	<0.0001	<0.0001	0.005
Vinyl Chloride	mg/L	1	0.0002	<0.0002	<0.0002	0.002