

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	220007132
Drinking-Water System Name:	Park Lane Well Supply
Drinking-Water System Owner:	The Corporation of the Township of Ramara
Drinking-Water System Category:	Small Municipal Residential
Period being reported:	January 1, 2017 to December 31, 2017

<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;"> Township of Ramara Municipal Office 2297 Highway 12 Brechin, ON L0K 1B0 </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </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: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </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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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 []
 *Not applicable

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The source water for Park Lane Subdivision Drinking Water System is groundwater, which is withdrawn either from Well No. 1 or Well No. 2. The duty well is manually selected by the operators. Water is pumped from the wells to the water works building. Raw water is treated with sodium hypochlorite and potassium permanganate for iron and manganese oxidation. Two Greensand filters are utilized to filter oxidized iron and manganese. The filter effluent is injected with sodium hypochlorite for primary disinfection. Treated water is stored in a 61 m³ standpipe. Two high lift pumps pump water into the distribution system.

Continuous water quality on-line analyzers monitor the free chlorine residual, pH and turbidity of the treated water before it enters the distribution system. The analyzers are logged continuously by the paperless chart recorder and have alarm set points to notify the operators of adverse water quality results.

The water works is equipped with a 20 kW propane emergency generator. The generator has sufficient capacity to run the entire Water Works. The generator can operate for 5 days at maximum capacity when its propane tank is full.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite
Potassium Permanganate

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

- Water service repair (\$3,000)
- Water service repair (\$3,000)
- Water service repair (\$5,000)
- Install new monitoring computer (\$2,000)

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

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	104	0	0 - 6	0	0
Treated	53	0	0	53	0 - 7
Distribution	107	0	0	107	0 - 6

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	8760	0 – 2.40 NTU
Chlorine	8760	0 – 5.01 mg/L
Fluoride (If the DWS provides fluoridation)		N/A

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

NOTE:
 When free chlorine residual was measured to be outside of the operating range of **0.4 mg/L to 4.0 mg/L**, the results were confirmed by operators as non-reportable events by use of a hand held analyzer. All results obtained outside the operating range were attributed to testing of alarm set-points, short term power failure, regular maintenance or cleaning.

When a turbidity value was recorded to exceed the limit of **1.0 NTU**, the results were checked by operators by use of a hand held analyzer. All results obtained outside the objective range were attributed to testing of alarm set-points, short term power failure, regular maintenance or cleaning.

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	Compliance Requirement	Exceedance
July 20, 2016 MDWL No. 147-102 Issue Number 2	Suspended solids in backwash effluent	February, May, August and November	2.0	mg/L (Annual average)	15 mg/L (Annual Average)	No

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	19-Aug-16	0.03	µg/L	
Arsenic	19-Aug-16	<0.2	µg/L	
Barium	19-Aug-16	109	µg/L	
Boron	19-Aug-16	210	µg/L	
Cadmium	19-Aug-16	<0.003	µg/L	
Chromium	19-Aug-16	0.36	µg/L	
Lead (Distribution)	15-Aug-17	0.67	µg/L	
Mercury	19-Aug-16	<0.01	µg/L	
Selenium	19-Aug-16	0.06	µg/L	
Sodium	02-Sept-15	67.8	mg/L	
Uranium	19-Aug-16	0.831	µg/L	
Fluoride	15-Aug-17	0.24	mg/L	
Nitrite	22-Nov-17	<0.003	mg/L	
Nitrate	22-Nov-17	<0.006	mg/L	

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 #)	Unit of Measure	Number of Exceedances
Plumbing				
Distribution				

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	18-Aug-16	<0.02	µg/L	
Atrazine + N-dealkylated metabolites	18-Aug-16	<0.01	µg/L	
Azinphos-methyl	18-Aug-16	<0.02	µg/L	
Benzene	18-Aug-16	<0.32	µg/L	
Benzo(a)pyrene	18-Aug-16	<0.004	µg/L	
Bromoxynil	18-Aug-16	<0.33	µg/L	

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Carbaryl	18-Aug-16	<0.01	µg/L	
Carbofuran	18-Aug-16	<0.01	µg/L	
Carbon Tetrachloride	18-Aug-16	<0.16	µg/L	
Chlorpyrifos	18-Aug-16	<0.02	µg/L	
Diazinon	18-Aug-16	<0.02	µg/L	
Dicamba	18-Aug-16	<0.20	µg/L	
1,2-Dichlorobenzene	18-Aug-16	<0.41	µg/L	
1,4-Dichlorobenzene	18-Aug-16	<0.36	µg/L	
1,2-Dichloroethane	18-Aug-16	<0.35	µg/L	
1,1-Dichloroethylene (vinylidene chloride)	18-Aug-16	<0.33	µg/L	
Dichloromethane	18-Aug-16	<0.35	µg/L	
2-4 Dichlorophenol	18-Aug-16	<0.15	µg/L	
2,4-Dichlorophenoxy acetic acid (2,4-D)	18-Aug-16	<0.19	µg/L	
Diclofop-methyl	18-Aug-16	<0.40	µg/L	
Dimethoate	18-Aug-16	<0.03	µg/L	
Diquat	18-Aug-16	<1.0	µg/L	
Diuron	18-Aug-16	<0.03	µg/L	
Glyphosate	18-Aug-16	<1.0	µg/L	
Malathion	18-Aug-16	<0.02	µg/L	
Metolachlor	18-Aug-16	<0.01	µg/L	
Metribuzin	18-Aug-16	<0.02	µg/L	
Monochlorobenzene	18-Aug-16	<0.30	µg/L	
Paraquat	18-Aug-16	<1.0	µg/L	
Pentachlorophenol	18-Aug-16	<0.15	µg/L	
Phorate	18-Aug-16	<0.01	µg/L	
Picloram	18-Aug-16	<1.0	µg/L	
Polychlorinated Biphenyls(PCB)	18-Aug-16	<0.04	µg/L	
Prometryne	18-Aug-16	<0.03	µg/L	
Simazine	18-Aug-16	<0.01	µg/L	
THM - Quarterly Average (NOTE: Latest annual average)	22-Feb-17 to 22-Nov-17	84.4	µg/L	
Terbufos	18-Aug-16	<0.01	µg/L	
Tetrachloroethylene	18-Aug-16	<0.35	µg/L	
2,3,4,6-Tetrachlorophenol	18-Aug-16	<0.14	µg/L	
Triallate	18-Aug-16	<0.01	µg/L	
Trichloroethylene	18-Aug-16	<0.44	µg/L	
2,4,6-Trichlorophenol	18-Aug-16	<0.25	µg/L	
2-Methyl-4-chlorophenoxy acetic acid	18-Aug-16	<0.00012	µg/L	
Trifluralin	18-Aug-16	<0.02	µg/L	
Vinyl Chloride	18-Aug-16	<0.17	µg/L	

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
THM - Quarterly Average	84.4	µg/L	Quarterly Average 22-Feb-17 to 22-Nov-17

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)

Notes on Additional Sampling

None.