



# **Village of Oil Springs**

## **Water Distribution**

**Annual Summary Report**

**2017**

This summary report has been prepared by CH2M for the Village of Oil Springs. The purpose of the report is to meet the requirements of the Safe Drinking Water Act, 2002 and Ontario Regulation 170/03, Schedule 22, which requires that a Summary Report be prepared each year no later than March 31<sup>st</sup> and given to the municipal council in the case of a drinking water system owned by a municipality. Schedule 22-2(1)

The report summarizes the water quality information for the Oil Springs Water Distribution System, Water Works number 60046761 for the period of **January 1, 2017 to December 31, 2017**. The Oil Springs Water Distribution System is categorized as a Large Municipal Residential Drinking Water System.

The annual MOECC inspection for the Oil Springs Distribution System was completed on July 20<sup>th</sup> 2017  
The overall Inspection rating was 100%

### **Statement of compliance.**

The Oil Springs Water Distribution System is operated and maintained by CH2M on behalf of the Village of Oil Springs. The water supplied to the consumers serviced by the system followed the requirements of the Safe Drinking Water Act all applicable regulations made in accordance with that Act, the Drinking Water Works Permit Number: 251-201 Issue Number: 2 and the Municipal Drinking Water License Number: 251-101 Issue Number: 2

**There was one Adverse Water Quality Incident # 136477 – (2 Total Coliform) Notice received Sept 7<sup>th</sup>**

### **Review of Distribution system**

CH2M assumed operations of Oil Springs distribution system Oct 6<sup>th</sup>/16

Oil Springs water distribution system consists of a 50 mm to a 300 mm diameter water main.  
The distribution system includes 38 Fire Hydrants, 3 Blow offs and 69 Valves

The Oil Springs system is connected to the Township of Enniskillen Water Distribution System. The water is purchased from & supplied by the Township of Enniskillen.

There are no chemicals added to system by the Village of Oil Springs. Immediately upstream of the system a 12% chlorine solution of sodium hypochlorite is used at the Enniskillen Water Reservoir which feeds the Oil Springs Distribution System

A Hach CL17 in-line chlorine analyzer located at the municipal office is used to continuously monitor the residual in the distribution system. The chlorine residual information from the analyzer is stored on a designated computer and a paper copy back up is kept in a binder located at the municipal office.

The distribution system for The Village Oil Springs has qualified for a reduced Lead sampling schedule and is not required to perform Lead sampling until 2019.

As per O, Reg 170/03, Schedule 13-6.1 (1) - Starting in July 2017 Oil Springs now must sample for HAA's (Haloacetic Acids) each quarter.

## Repairs & Maintenance

- Installed a Hach CL17 Chlorine Analyzer / Removed old Dopolox analyzer
- All hydrants were flushed Aug 28<sup>th</sup> & Aug 30<sup>th</sup>
- Water Distribution valves were located/exercised during the month of October
- All valve caps were painted
- Repairs to Hydrant # 5 was performed by Corix
- A power outage occurred Nov 4<sup>th</sup> but the Chlorine Analyzer data logger failed to record the distribution residuals. Juice computers called with a recommendation for a computer upgrade. To be installed in early 2018
- Replaced 7 water meters

## Health Samples

The health samples include tests for the presence of E-coli, Total coliforms and HPC (Heterotrophic Plate Count) Any presence of E-coli or Total coliforms would be considered adverse and must be reported. They are taken on a weekly basis at 2 locations within the Village of Oil Springs:

1. Oil Springs Municipal office
2. Oil Springs Community Hall

Free chlorine samples are also analyzed at each site when collecting the health samples. Sample results less than 0.25 mg/L are of concern and results less than 0.05 mg/L are considered adverse and must be reported.

Chlorine residuals collected during sampling ranged from 0.74 mg/L (July 11<sup>th</sup>) to 1.66 mg/L (Dec 12<sup>th</sup>)

Health samples for HPC (Heterotrophic plate count) ranged from 0 cfu/mL to 610 cfu/mL

THM samples were collected on Jan 23<sup>rd</sup>, April 10<sup>th</sup>, July 11<sup>th</sup>, Oct 10<sup>th</sup> @ Hydrant # 38

HAA samples were collected on July 11<sup>th</sup> & Oct 10<sup>th</sup> @ Hydrant # 34

## 2017 Water purchased from Enniskillen Township (m3)

Month	Oil Heritage Road	Oil Springs Line	Monthly Total
January	1346	2178	3524
February	1129	2570	3699
March	1052	2587	3639
April	989	2406	3395
May	1030	3060	4090
June	2094	2315	4409
July	1268	2524	3792
August	1904	2704	4608
September	1315	2584	3899
October	1221	2858	4079
November	967	2351	3318
December	1255	2460	3715
<b>Total</b>	<b>15,570</b>	<b>30,597</b>	
<b>2017 Annual Total</b>			<b>46,167</b>
<b>Monthly Average</b>			<b>3,847</b>
<b>Daily Average</b>			<b>126.5</b>

The annual total amount purchased includes water sold to customers in the Oil Springs distribution system and other water uses including hydrant flushing, fire flows, new watermain construction, repairs to watermain etc...

### **Previous Annual water (m3) purchased from Enniskillen**

<b>Year</b>	<b>Amount Purchased (m3)</b>
<b>2016</b>	<b>50,751</b>
<b>2015</b>	<b>50,959</b>
<b>2014</b>	<b>49,823</b>
<b>2013</b>	<b>49,230</b>
<b>2012</b>	<b>48,657</b>
<b>2011</b>	<b>60,678</b>
<b>2010</b>	<b>63,392</b>
<b>2009</b>	<b>55,811</b>
<b>2008</b>	<b>56,480</b>

**The water loss factor (%) for 2017 is 5.27 %**

### **Previous water loss factor**

<b>Year</b>	<b>Factor (%)</b>
<b>2016</b>	<b>7.58</b>
<b>2015</b>	<b>6.64</b>
<b>2014</b>	<b>8.61</b>
<b>2013</b>	<b>3.91</b>
<b>2012</b>	<b>2.06</b>
<b>2011</b>	<b>17.01</b>
<b>2010</b>	<b>8.21</b>
<b>2009</b>	<b>8.81</b>
<b>2008</b>	<b>6.63</b>
<b>2007</b>	<b>11.00</b>

The agreement with the Township of Enniskillen provides for the supply of water for an ultimate population of 1200 in the Village of Oil Springs. The estimates of water consumption is based on a 66 imp. gallons/capita/day (0.3 m3/capita/day) for a population of 1200, the average daily consumption is 79,000 imp. gallons/day (359 m3/day) with an average flow rate of 55 imp. gpm (0.25 m3/min) Maximum daily flow rate of 138 imp gpm (0.63 m3/min) and a peak hourly flow rate of 206 imp gpm (0.94 m3/min)