

Ministry of the Environment

Ministère de l'Environnement



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File: SI-LA-OS 540A  
Oil Springs Distribution System

March 20, 2014

Jennifer Turk, Administrator-Clerk  
Village of Oil Springs  
P.O. Box 22  
4591 Oil Springs Line  
Oil Springs, ON N0N 1P0

Dear Mrs. Turk

**Re: January 24, 2014 Inspection – Oil Springs Distribution System**

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Enclosed is a copy of the inspection report prepared for the Oil Springs Distribution System under the Ministry's focused inspection protocol. The report is based on conditions encountered at the time of inspection, and subsequent follow-up.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in "Taking Care of Your Drinking Water: A guide for members of municipal council" found under "Resources" on the Drinking Water Ontario website at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater).

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Rating Record (IRR), included as Appendix C of the inspection report, provides the Ministry, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. Please note the attached IRR methodology memo describing how the risk rating model has improved to better reflect the health related and administrative non-compliance found in an inspection report. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report. If you have any questions or concerns regarding the rating, please contact Gary Johnson, Drinking Water Program Supervisor, at (519) 383-3794.

Should you note any errors or omissions or have any concerns, please contact me at (519) 383-3778, or Gary Johnson at (519) 383-3794.

A handwritten signature in black ink that reads "Marc Bechard".

Marc Bechard  
Provincial Officer  
Safe Drinking Water Branch, Sarnia District Office

c: Mike Young, Overall Responsible Operator, Township of Enniskillen (Operating Authority)  
Duncan McTavish, Clerk-Treasurer, Township of Enniskillen  
Dr. Sudit Ranade, Medical Officer of Health, Lambton Community Health Services Dept.  
File: SI-LA-OS 540A Oil Springs Distribution System



**Ministry of the Environment**

**OIL SPRINGS WATER DISTRIBUTION SYSTEM  
Inspection Report**

<b>Site Number:</b>	260046761
<b>Inspection Number:</b>	1-AP2AS
<b>Date of Inspection:</b>	Jan 24, 2014
<b>Inspected By:</b>	Marc Bechard

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**Table of Contents**

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	Page
Owner & Contact Information	2
Inspection Details & Drinking Water System Components Description	2
Inspection Summary	
Introduction	4
Treatment Process Monitoring	5
Distribution	5
Operations Manual	5
Logbooks	6
Certification and Training	6
Water Quality Monitoring	6
Water Quality Assessment	7
Non-Compliance with Regulatory Requirements and Actions Required	8
Summary of Best Practice Issues and Recommendations	9
Signatures	10
<hr/> <b>Appendices</b>	
A. Stakeholder Appendix	
B. Inspection Rating Record	

**OWNER INFORMATION:**

**Company Name:** Oil Springs, The Corporation of the Village of  
**Street Number:** 4591 **Unit Identifier:**  
**Street Name:** OIL SPRINGS Line  
**City:** OIL SPRINGS  
**Province:** ON **Postal Code:** N0N 1P0

**CONTACT INFORMATION**

**Type:** Owner **Name:** Jennifer Turk  
**Phone:** (519) 834-2939 **Fax:** (519) 834-2333  
**Email:** oilsprings@ciaccess.com  
**Title:** Clerk-Treasurer

**Type:** Operating Authority **Name:** Michael Young  
**Phone:** (519) 882-2490 **Fax:**  
**Email:** myoung@enniskillen.ca  
**Title:** Overall Responsible Operator

**INSPECTION DETAILS:**

**Site Name:** OIL SPRINGS WATER DISTRIBUTION SYSTEM  
**Site Address:** 4591 OIL SPRINGS LINE OIL SPRINGS N0N 1P0  
**County/District:** Oil Springs  
**MOE District/Area Office:** Sarnia District  
**Health Unit:** LAMBTON HEALTH UNIT  
**Conservation Authority:** N/A  
**MNR Office:** N/A  
**Category:** Large Municipal Residential  
**Site Number:** 260046761  
**Inspection Type:** Announced  
**Inspection Number:** 1-AP2AS  
**Date of Inspection:** Jan 24, 2014  
**Date of Previous Inspection:** Feb 20, 2013

**COMPONENTS DESCRIPTION**

**Site (Name):** Oil Springs Water Distribution System  
**Type:** **Sub Type:**

**Comments:**

The Village of Oil Springs Water Distribution system consists of 50 to 250 mm diameter mains that receive water from the Township of Enniskillen Water Distribution System through two metered connections at the northwest and eastern extremities of the community. They system directly supplies approximately 736 Oil Springs residents.

The Oil Springs Water Distribution System does not include any treatment, storage or pumping components, and the Enniskillen reservoir and pumping station at 2868 Oil Heritage Road in Enniskillen maintains secondary chlorination and pressure.

The Township of Enniskillen Water Distribution System receives treated surface water from the Town of Petrolia Water Treatment Plant at 2701 Old Lakeshore Road in Sarnia. Besides the water treatment plant, the Town of Petrolia water system includes a reservoir and booster station at 3517 Confederation Line in Plympton-Wyoming, and an elevated water tank at 345 Centre Street in Petrolia.

The Township of Enniskillen is the Operating Authority for the Village of Oil Springs. Oil Springs personnel do not operate their water distribution system; however, they monitor water consumption and system pressure and assist the Operating Authority with maintenance and/or repairs when required. A private contractor is utilized for the routine collection of water distribution samples within the Village of Oil Springs for microbiological and chemical testing.

**Site (Name):** MOE DWS Mapping

**Type:** DWS Mapping Point

**Sub Type:**

**Comments:**

Not Applicable

## INSPECTION SUMMARY

### INTRODUCTION

- \* The primary focus of this inspection is to confirm compliance with Ministry of the Environment legislation and authorizing documents such as Orders and Certificates of Approval, as well as evaluating conformance with Ministry drinking water related policies and guidelines during the inspection period.

This report is based on an inspection of a "stand alone connected distribution system". This type of system receives treated water from a separately owned "donor" system. This report contains all of the elements required to assess key compliance and conformance issues associated with a "receiver" system to ensure that the system was not being operated or managed in a "deficient" condition, as defined under O. Reg. 172/03. The report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O.Reg.170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.

Your system was chosen for a focused inspection during this inspection cycle because inspection findings over the past three years were such that the number of violations were minimal or non existent, there were few or no orders issued to you that were of significance in the maintenance of water potability and there were no deficiencies as defined in O. Reg. 172/03. The undertaking of a focused inspection at your drinking water system during this year's inspection cycle does not ensure that a similar type of inspection will be conducted at any point in the future.

Specifically, this review includes an assessment of compliance / conformance in relation to the following:

- Drinking Water Systems Regulation (O. Reg. 170/03);
- Drinking Water Operator and Water Quality Analyst Certification Regulation (O. Reg. 128/04) with respect to facility certification, operator licensing and operating standards;
- Drinking Water System Licence 251-101, issued September 26, 2011, related to selected Performance, Monitoring and Recording, Operations and Maintenance requirements;
- Drinking Water Works Permit 251-201, issued September 23, 2011, and
- Ontario Drinking Water Quality Standards based on water quality data generated since the previous inspection.

The inspection was conducted on an announced basis. Inspection components, conducted on January 24, 2013, consisted of:

1. sampling the chlorine residual in the distribution system;
2. review and testing of alarm controls;
3. a brief review of the most current operating logs, and
4. collection of relevant operational documents and sampling results.

The inspection review period covers from January 1, 2013 to January 1, 2014.

**TREATMENT PROCESS MONITORING**

- \* **The secondary disinfectant residual was measured as required for the distribution system.**

The free chlorine residual in the distribution system is continuously monitored by an analyzer located at the municipal office. A review of the specifications confirmed that the continuous monitoring equipment adheres to the operational requirements set out in O. Reg. 170/03 Schedule 6-5 for a distribution sample. The chlorine residual continuous analyzer is utilized for compliance with the required operational checks as outlined in Schedule 7-2 of the regulation.

On October 17th 2013 the communication between the chlorine analyser and the data logger failed. The overall responsible operator immediately contacted a technician for repair. Daily chlorine residuals were collected by operations staff until the repair was completed on December 5, 2013.

- \* **Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.**
- \* **All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or approval or order, were not equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6.**

In accordance with O. Reg. 170/03 Schedule 6-5(1.1), continuous monitoring equipment must cause an alarm to sound if the equipment malfunctions or loses power or a test result for a parameter is above or below the specified standard. During the site inspection the analyzer which monitors the free chlorine residual in the distribution was tested for power failure and a simulated low chlorine residual. Results showed that the equipment failed to alert operators when the free chlorine residual went below the minimum alarm standard. The equipment alarmed sufficiently under the power failure scenario.

- \* **Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.**
- \* **All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.**

**DISTRIBUTION SYSTEM**

- \* **Based on the records available the owner was able to maintain proper pressures in the distribution system.**

**OPERATIONS MANUALS**

- \* **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**
- \* **The operations and maintenance manuals did meet the requirements of the Permit and Licence or Approval issued under Part V of the SDWA.**

### LOGBOOKS

- \* Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.

### CERTIFICATION AND TRAINING

- \* The overall responsible operator had been designated for each subsystem.
- \* Operators in charge had been designated for all subsystems which comprised the drinking-water system.

### WATER QUALITY MONITORING

- \* All microbiological water quality monitoring requirements for distribution samples were being met.

O. Regulation 170/03 requires the owner and operating authority to take a minimum of one sample per week and at least 8 samples per month (as per population served), from the distribution system. All samples must be analysed for E. coli and total coliforms. In addition, at least 25% of the distribution microbiological samples must be analysed for heterotrophic plate count (HPC).

During the inspection review period, samples were taken as required, and within the prescribed time frame.

- \* All trihalomethanes water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

O. Regulation 170/03 Schedule 13-6 requires that a sample must be taken and analysed for trihalomethane at least every three months from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of trihalomethanes.

During the inspection review period, samples were taken as required, and within the prescribed time frame.

- \* All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.

The owner is currently eligible for the plumbing exemption sampling provisions under Schedule 15.1-5(10). Total alkalinity and pH sampling is required during each of the periods in every 12 month period and testing for lead during each of the periods in every third 12 month period. Distribution system samples must be collected from at least the number of points set out in column 5 of the Table in Schedule 15.1-5 opposite the population served by the drinking water system.

During the inspection review period, samples were taken as required, and within the prescribed time frame.

- \* Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.



**WATER QUALITY ASSESSMENT**

- \* Records show that all water sample results taken during the review period met the Ontario Drinking Water Quality Standards (O. Reg. 169/03).

**NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED**

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

1. All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or approval or order, were not equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6.

During the site inspection the analyzer which monitors the free chlorine residual in the distribution was tested for power failure and a simulated low chlorine residual. Results showed that the equipment failed to alert operators when the free chlorine residual went below the minimum alarm standard.

**Action(s) Required:**

The owner must ensure that the continuous monitoring equipment causes an alarm to sound in accordance with O. Reg. 170/03 Schedule 6-5. The owner must also create a procedure for testing the equipment's at regular frequencies to ensure the equipment complies with the continuous monitoring requirements of the regulation.

**SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES**

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

**SIGNATURES**

Inspected By:

Marc Becharad

Signature: (Provincial Officer):



Reviewed &amp; Approved By:

Gary Johnson

Signature: (Supervisor):



Review &amp; Approval Date: 20/03/2014 (dd/mm/yyyy)

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.



**Ministry of the Environment  
Drinking Water System Inspection Report**

**Appendix A**

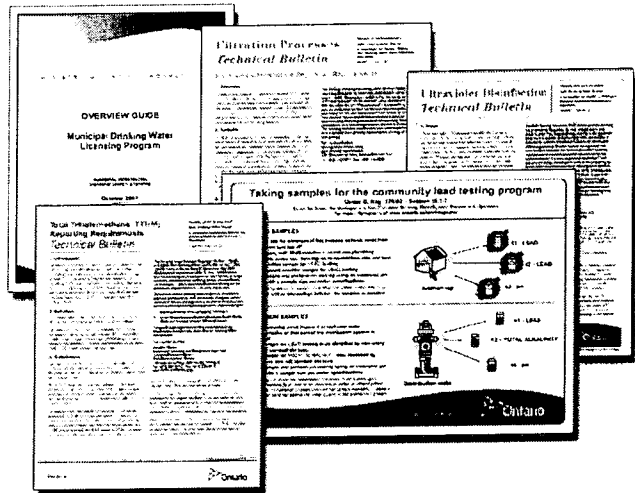
Stakeholder Appendix

# Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are posted on the Ministry of the Environment's **Drinking Water Ontario** website at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater) to help in the operation of your drinking water system.

Below is a list of key materials frequently used by owners and operators of municipal drinking water systems. To read or download these materials, go to **Drinking Water Ontario** and search in the **Resources** section by **Publication Number**.

Visit **Drinking Water Ontario** for more useful materials. Contact the Public Information Centre if you need assistance or have questions at 1-800-565-4923/416-325-4000 or [picemail.moe@ontario.ca](mailto:picemail.moe@ontario.ca).



PUBLICATION NUMBER	PUBLICATION TITLE
4448e01	Procedure for Disinfection of Drinking Water in Ontario
7152e	Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids
7467	Filtration Processes Technical Bulletin
7685	Ultraviolet Disinfection Technical Bulletin
8215	Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (February 2011)
2601e	Overview Guide: Municipal Drinking Water Licensing Program
0000	Municipal Drinking Water Licensing Program Bulletin, Issue 1, January 2011
0000	Certification Guide for Operators and Water Quality Analysts
6560e	Taking Samples for the Community Lead Testing Program
7423e	Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption
7128e	Drinking Water System Contact List
4449e01	Technical Support Document for Ontario Drinking Water Quality Standards

[ontario.ca/drinkingwater](http://ontario.ca/drinkingwater)





**Ministry of the Environment  
Drinking Water System Inspection Report**

**Appendix B**

Inspection Summary Rating Record (IRR)

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2013-2014)

**DWS Name:** OIL SPRINGS WATER DISTRIBUTION SYSTEM  
**DWS Number:** 260046761  
**DWS Owner:** Oil Springs, The Corporation Of The Village Of  
**Municipal Location:** Oil Springs

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Adhoc  
**Inspection Date:** January 24, 2014  
**Ministry Office:** Sarnia District

Maximum Question Rating: 198

Inspection Module	Non-Compliance Rating
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 14
Water Quality Monitoring	0 / 51
Other Inspection Findings	0 / 0
Treatment Process Monitoring	21 / 91
<b>TOTAL</b>	<b>21 / 198</b>

Inspection Risk Rating 10.61%

**FINAL INSPECTION RATING: 89.39%**



**Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2013-2014)**

<b>DWS Name:</b> OIL SPRINGS WATER DISTRIBUTION SYSTEM
<b>DWS Number:</b> 260046761
<b>DWS Owner:</b> Oil Springs, The Corporation Of The Village Of
<b>Municipal Location:</b> Oil Springs
<b>Regulation:</b> O.REG 170/03
<b>Category:</b> Large Municipal Residential System
<b>Type Of Inspection:</b> Adhoc
<b>Inspection Date:</b> January 24, 2014
<b>Ministry Office:</b> Sarnia District

Non-compliant Question(s)	Question Rating
<b>Treatment Process Monitoring</b>	
Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg.170/03, or approval or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?	21
<b>TOTAL QUESTION RATING</b>	21

**Maximum Question Rating: 198**

<b>Inspection Risk Rating</b>	<b>10.61%</b>
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<b>FINAL INSPECTION RATING:</b>	<b>89.39%</b>
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