



Ministry of the Environment

**BRUCE MINES DRINKING WATER SYSTEM
Inspection Report**

Site Number:	210000933
Inspection Number:	1-BDU2G
Date of Inspection:	Sep 29, 2014
Inspected By:	Lori Greco

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OWNER INFORMATION:

Company Name: BRUCE MINES, THE CORPORATION OF THE TOWN OF
Street Number: 9127 **Unit Identifier:**
Street Name: HIGHWAY 17 Hwy E
City: BRUCE MINES
Province: ON **Postal Code:** P0R 1C0

CONTACT INFORMATION

Type: Owner Contact **Name:** Donna Brunke
Phone: (705) 785-3493 **Fax:** (705) 785-3170
Email: dbrunke@bellnet.ca
Title: Clerk

Type: Operating Authority **Name:** Jeff St. Pierre
Phone: (705) 943-5578 **Fax:** (705) 575-2247
Email: jst.pierre@ocwa.com
Title: Operations Manager, OCWA

Type: Operating Authority **Name:** Charles O'Kane
Phone: (705) 785-3445 **Fax:**
Email: co'kane@ocwa.com
Title: Operator, OCWA

Type: Operating Authority **Name:** Mark Witty
Phone: (705) 785-3445 **Fax:**
Email: mwitty@ocwa.com
Title: Operator, OCWA

Type: Algoma Public Health **Name:** Sherri Cleaves
Phone: (705) 541-7347 **Fax:** (705) 541-7346
Email: scleaves@algomapublichealth.com
Title: Director of Environmental Health, APH

INSPECTION DETAILS:

Site Name: BRUCE MINES DRINKING WATER SYSTEM
Site Address: 75 BRUCE BAY RD BRUCE MINES P0R 1C0
County/District: Bruce Mines
MOE District/Area Office: Sault Ste. Marie Area Office
Health Unit: ALGOMA PUBLIC HEALTH
Conservation Authority: N/A
MNR Office: N/A
Category: Large Municipal Residential

Site Number: 210000933
Inspection Type: Unannounced
Inspection Number: 1-BDU2G
Date of Inspection: Sep 29, 2014
Date of Previous Inspection: Aug 27, 2013

COMPONENTS DESCRIPTION

Site (Name): INTAKE
Type: Source **Sub Type:**

Comments:

The raw water source for the Bruce Mines WTP is the St. Joseph's Channel of Lake Huron. The intake is a 300 mm gravity line approximately 366 meters off shore in 7 metres of water. Repairs to the intake were carried out during the plant upgrade in 2003.

Site (Name): TREATED WATER
Type: Treated Water POE **Sub Type:**

Comments:

The treatment plant was upgraded in 2003 with a PALL membrane filtration system. Two submersible low lift pumps supply raw water to two parallel micro filtration units. Each filtration unit is equipped with a 0.1 micron pore size fibre membrane, and is rated for a gross production of 10 L/s. Turbidity meters monitor the discharge from each filter train. Compressed air and sodium hypochlorite are used for the frequent cleaning of the membranes. Sodium hydroxide, sodium hypochlorite and citric acid are used for periodic deep cleaning. Waste from the deep cleaning process is directed to the municipal sanitary system, while backwash water is discharged to Lake Huron following dechlorination using sodium metabisulphate and dilution to ensure a maximum suspended solids level of 25 mg/L. Sodium hypochlorite is used for prechlorination at the intake for zebra mussel control as well as primary and secondary disinfection. Three vertical turbine high lift pumps with variable frequency drives supply the distribution system. One fixed speed 38 L/s high capacity pump is available for emergency situations. A diesel generator is available to supply emergency power.

Continuous particle counters are no longer in use (Schedule C amendment to DWWP #270-201) but remain in place.

Site (Name): DISTRIBUTION (WATER INSPECTION)
Type: Other **Sub Type:**

Comments:

The distribution system serves a population of approximately 600 in the Town of Bruce Mines and 250 in the Township of Plummer Additional. The system is equipped with hydrants for fire protection and flushing purposes. Water storage consists of in-ground reservoirs at the treatment plant which also provide the necessary contact time for disinfection. There is a booster station with re-chlorination capability for servicing the Gimby subdivision and the community of Bruce Station (Twp. of Plummer Additional).

INSPECTION SUMMARY

INTRODUCTION

- * **The primary focus of this inspection is to confirm compliance with Ministry of the Environment legislation and control documents, as well as conformance with Ministry drinking water related policies for the inspection period. The Ministry is implementing a rigorous and comprehensive approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as water system management practices.**

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.

Unless otherwise stated, data review for this inspection covers the period from August 1, 2013 to August 31, 2014.

SOURCE

- * **There were no obvious potential sources of pollution or activities in or around the source that could impair source water quality.**

PERMIT TO TAKE WATER

- * **The owner had a valid PTTW for all of the production sources.**

The Bruce Mines DWS currently operates under PTTW #6413-7FPND7 which expires June 19, 2018. All production sources are identified as required.

- * **The maximum water takings were in accordance with those allowed under the PTTW.**

The Bruce Mines Drinking Water System operates under Permit to Take Water #6413-7FPND7, issued June 20, 2008; this permit allows a maximum water taking of 1,000,000 L/day. Based on information provided for this inspection period the maximum water taking was 358,000 L/day, recorded on July 5, 2014.

CAPACITY ASSESSMENT

- * **There was sufficient monitoring of flow as required by the Permit and Licence or Approval issued under Part V of the SDWA**

Schedule C Condition 2.1 of Municipal Drinking Water Licence (#270-101) for the Bruce Mines DWS requires a sufficient number of flow monitoring devices throughout the system to ensure continuous monitoring and recording of flow rates and daily volumes of water transported into the treatment and distribution systems.

Continuous flow measuring devices are in place to monitor raw water flow into each filtration unit, treated water flow leaving the plant and influent flow to the Plummer Additional booster station.

- * **Flow measuring devices were calibrated or verified in accordance with the requirements of a Permit and Licence or Approval issued under Part V of the SDWA.**

Condition 3.0 of the drinking water licence requires that all flow measuring devices be checked and calibrated in accordance with the manufacturer's instructions, or at least once per year while the drinking water system is in operation.

Records indicate that all flow meters were last calibrated September 22/23, 2014.

CAPACITY ASSESSMENT

- * **The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Permit and Licence or Approval issued under Part V of the SDWA.**

The rated capacity for this drinking water system as outlined in Schedule C Condition 1.1 of Municipal Drinking Water Permit #270-101 is 864 m³/day.

Records indicate that there were no exceedances during the current review period.

- * **Records of flows and any capacity exceedances were made in accordance with the Permit and Licence or Approval issued under Part V of the SDWA.**

TREATMENT PROCESSES

- * **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**

The Plummer Booster station was not visited during this inspection, the operator indicated that there had not been any changes.

- * **The owner/operating authority was not in compliance with the requirement to prepare Form 3 and associated documents as required by their Drinking Water Works Permit during the inspection period.**

The owner replaced the stand-by diesel generator with a natural gas generator. The Form 3 document and associated DWW Permit 5.7 requirements were not completed at the time of the inspection.

- * **Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Permit, Licence or Approval issued under Part V of the SDWA at all times that water was being supplied to consumers.**

The Bruce Mines WTP achieves primary disinfection through the use of membrane filtration (0.1 micron) and chlorination. Since the drinking water source is surface water, the plant is required to provide 2 log removal of Cryptosporidium, 3 log removal of Giardia, and 4 log removal of Viruses; a minimum of 0.5 log removal of Giardia must be achieved through chemical disinfection.

Removal credits are assigned as follows:

	Crypto	Giardia	Viruses
Membrane Filtration	2.0	3.0	2.0
Chlorination	0	0.5	2.0
<hr/>			
Totals	2.0	3.5	4.0
Required	2.0	3.0	4.0

MEMBRANE FILTRATION:

The filtration system is being operated in a manner that fulfills the requirements outlined in the "Procedure for Disinfection of Drinking Water in Ontario". Filters are backwashed effectively with backwash water going directly to waste rather than being recycled. Trans-membrane pressure is also continuously monitored for each unit. A review of the turbidity data for this inspection period indicates that the filtered water turbidity was maintained at less than or equal to 0.1 NTU in 99% of the measurements each month.

CHLORINATION:

The disinfection component of this plant is designed for 0.5 log inactivation of giardia cysts, and 2 log inactivation of viruses. The CT sample calculation outlined in the operations manual states

TREATMENT PROCESSES

that CT conditions are met under normal high lift conditions (2 high lift pumps running - treated water flow of 16 L/S) provided that the chlorine residual is maintained at 0.6 mg/L and the clearwell level is maintained above 38.4%. The operations manual also identifies the CT value for different scenarios when the plant is operating outside of the normal range. A minimum free chlorine alarm has been set at 0.7 mg/L with a clearwell low level alarm set point of 70%. Alarm set points are established to allow operational staff sufficient time to respond to call outs and to ensure that CT is maintained under varying conditions. Based on information provided during this inspection period, there were no concerns identified with respect to the system achieving the required CT for the inactivation of both giardia and viruses.

- * **Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.**

Records provided by the operating authority for this inspection period were reviewed and indicate that the chlorine residual in the distribution system was never less than 0.05 mg/L. The lowest recorded residual was 0.63 mg/L in July 2014.

- * **The owner had evidence indicating that all chemicals and materials that come in contact with water within the drinking water system met the AWWA and ANSI standards in accordance with the Permit and Licence issued under Part V of the SDWA.**
- * **Up-to-date plans for the drinking-water system were available in accordance with the Permit and Licence issued under Part V of the SDWA.**
- * **The facility and equipment appeared to be maintained and in a fit state of repair.**
- * **The Operator-in-Charge had ensured that all equipment used in the processes was monitored, inspected, and evaluated.**
- * **Where a potential bypass of primary or secondary treatment equipment existed, measures were taken to ensure that raw or partially treated water was not directed to the distribution system.**
- * **Based on information provided by the owner/operator, it was not likely that contaminants entering the floor drains would have come in contact with the source water or treated water.**
- * **Measures were taken to ensure that pesticides were not applied, stored, or mixed in the immediate vicinity of source(s), treatment, and storage facilities.**

The owner indicated that there is a policy in place stating that the municipality will not use pesticides.

TREATMENT PROCESS MONITORING

- * **Primary disinfection chlorine monitoring was being conducted at a location approved by Permit, Licence or Approval issued under Part V of the SDWA, or at/near a location where the intended CT had just been achieved.**

TREATMENT PROCESS MONITORING

- * **Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system.**
- * **Continuous monitoring of each filter effluent line was being performed for turbidity.**

The Bruce Mines drinking water system is equipped with two membrane filtration units; effluent from each filter is monitored continuously by an on-line turbidity meter.

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

Secondary disinfection residual sampling and testing is being performed by continuous monitoring equipment, in accordance with Schedule 6 of O.Reg. 170/03.

- * **Records confirmed that the maximum free chlorine residual in the distribution system was less than 4.0 mg/L or that the combined chlorine residual was less than 3.0 mg/L.**
- * **Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.**
- * **Samples for chlorine residual analysis were tested using an acceptable portable device.**
- * **All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or approval or order, were equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6.**
- * **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.**

The operator indicated that continuous analysers are calibrated monthly. The Bruce Mines DWS uses the OCWA Hansen system to track maintenance and calibration activities. Additionally, calibration logs are kept for each piece of equipment.

PROCESS WASTEWATER

- * **The process wastewater and residual solids/sludges were being treated, handled and disposed of in accordance with the design requirements approved under the Permit and Licence or Approval issued under Part V of the SDWA.**
- * **The process wastewater discharge quality and discharge monitoring program complied requirements established in the Permit and Licence or Approval issued under Part V of the SDWA.**

DISTRIBUTION SYSTEM

DISTRIBUTION SYSTEM

- * **There is a backflow prevention program, policy and/or bylaw in place.**

The owner indicated that backflow prevention is addressed in their by-law for new hook-ups.

- * **The owner had a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.**

Reservoirs are inspected annually; inspections are tracked by OCWA's Hansen system.

- * **Existing parts of the distribution system that were taken out of service for inspection, repair or other activities that may lead to contamination, and all new parts of the distribution system that came in contact with drinking water, were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

- * **The owner had implemented a program for the flushing of watermains as per industry standards.**

All hydrants are flushed annually.

- * **Records confirmed that disinfectant residuals were routinely checked at the extremities and "dead ends" of the distribution system.**

Although residuals are checked at the extremities and dead ends of the distribution system, they are not part of a regular routine.

- * **A program was in place for inspecting and exercising valves.**

- * **There was a program in place for inspecting and operating hydrants.**

Hydrants are operated and inspected annually; maintenance/inspection is tracked through OCWA's Hansen system.

- * **There was a by-law or policy in place limiting access to hydrants.**

The municipality limits the use of fire hydrants to the fire department, the DWS operating authority and municipality.

- * **The owner has undertaken efforts to identify, quantify and reduce sources of apparent water loss.**

Distribution flow is monitored continually; operators will identify out of normal flows for further review.

- * **The distribution system pressure was monitored to alert the operator of conditions which may have lead to loss of pressure below the value under which the system is designed to operate.**

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

OPERATIONS MANUALS

- * **Operators and maintenance personnel had ready access to operations and maintenance manuals.**

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

- * **Logs for the drinking water subsystem(s) contained the required information.**

As per O. Reg. 128/04 section 27 (5) An operator-in-charge or a person authorized by an operator-in-charge shall record the following information in the logs or other record-keeping mechanisms in respect of each operating shift:

1. The date, the time of day the shift began and ended and the number or designation of the shift.
2. The names of all operators on duty during the shift.
3. Any departures from normal operating procedures that occurred during the shift and the time they occurred.
4. Any special instructions that were given during the shift to depart from normal operating procedures and the person who gave the instructions.
5. Any unusual or abnormal conditions that were observed in the subsystem during the shift, any action that was taken and any conclusions drawn from the observations.
6. Any equipment that was taken out of service or ceased to operate during the shift and any action taken to maintain or repair equipment during the shift.

The operators should take steps to ensure that they document each day that equipment that is out of service, or ceased to operate until the equipment is back online.

- * **Logbook entries were made in chronological order.**

- * **The record system allowed the reader to unambiguously identify the person who made the logbook entry.**

- * **Entries in the logbook were made only by appropriate and authorized personnel.**

- * **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.**

- * **For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test.**

- * **The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.**

LOGBOOKS

- * **Logs or other record keeping mechanisms were available for at least five (5) years.**

CONTINGENCY/EMERGENCY PLANNING

- * **Spill containment was provided for process chemicals and/or standby power generator fuel.**

The fuel storage tank for the diesel standby generator is properly contained. Although this tank is not currently in use, removal will depend on the availability of funds.

- * **Clean-up equipment and materials were in place for the clean up of spills.**

- * **Standby power generators were tested under normal load conditions.**

The operator indicated that the standby generator is tested on a weekly basis.

SECURITY

- * **All storage facilities were completely covered and secure.**
- * **Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.**
- * **The owner had provided security measures to protect components of the drinking-water system.**

CONSUMER RELATIONS

- * **Water conservation was being practiced by the owner or operating authority.**

In an effort to conserve energy/water, the municipality has installed water meters throughout the town with a plan to commence billing users in 2015.

- * **Required documents were available free-of-charge during normal business hours at a location accessible to the public.**
- * **The owner did take effective steps to advise users of the water system of the availability of Annual Reports, including posting a copy on a web site, if applicable.**

Annual reports are available on the municipal website.

CERTIFICATION AND TRAINING

- * **The overall responsible operator had been designated for each subsystem.**

The ORO duties for the treatment plant have been designated to two operators which alternate the duties of ORO. Both operators possess the required certification.

- * **Operators in charge had been designated for all subsystems which comprised the drinking-water system.**

Two operators, who are also designed as ORO alternate the duties of OIC.

CERTIFICATION AND TRAINING

- * **All activities that were undertaken by uncertified persons in the DW subsystems were overseen by persons having the prescribed qualifications.**
- * **All operators possessed the required certification.**
- * **Only certified operators made adjustments to the treatment equipment.**
- * **Operator certificates or water quality analyst certificates were displayed in a conspicuous location at the workplace or at the premises from which the subsystem was managed.**
- * **The classification certificates of the subsystems were conspicuously displayed at the workplace or at premises from which the subsystem was managed.**
- * **An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.**
- * **The owner/operating authority was aware of the operator training and record keeping requirements, and they were taking reasonable steps to ensure that all operators receive the required training.**

WATER QUALITY MONITORING

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

Section 10-4(1) of O. Reg. 170/03 requires the owner of a drinking-water system and the operating authority for the system to ensure that a water sample is taken at least once every week from the drinking-water system's raw water, before any treatment is applied to the water. The owner of the drinking-water system and the operating authority for the system shall ensure that each of the samples taken under subsection (1) is tested for, (a) Escherichia coli; and; and (b) total coliforms.

A review of data for this inspection period indicates that sampling has been completed as required.

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

Data review for this inspection period indicates that at least three samples were collected from the distribution system each week and tested for E. coli and total coliforms. HPC analysis was conducted on at least 25 percent of the distribution samples.

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

A review of data for this inspection period indicates a treated water sample is collected once per week and analysed for E. coli, total coliforms and HPC as required.

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

The most recent sampling and analysis occurred January 28, 2014.

WATER QUALITY MONITORING

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

The most recent sampling and analysis occurred January 28, 2014.

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

As of July 2, 2014 the running annual average for THM's was 78.5 ug/L which is below the standard of 100 ug/L.

- * **Trihalomethane samples were being collected from a point in the distribution system or connected plumbing system that was likely to have an elevated potential for the formation of trihalomethanes.**

- * **All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.**

A review of the water quality data for this inspection period confirms that nitrate and nitrite sampling has been completed in accordance with the regulation. The most recent sampling occurred July 2, 2014, April 23, 2014 January 28, 2014 and October 31, 2013.

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

The most recent sampling occurred January 11, 2011 (4.46 mg/L).

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

The most recent sampling occurred January 11, 2011 (0.06 mg/L).

- * **The owner ensured that water samples were taken at the prescribed location.**

- * **All water quality monitoring requirements imposed by the Permit and Licence or Approval issued under Part V of the SDWA were being met.**

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

Sampling for pH and alkalinity was completed April 9, 2014 and October 9, 2013 at two hydrants in the distribution system. Sampling for lead in the distribution system was conducted April 9, 2014 as required.

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

- * **The drinking water system owner had submitted written notices to the Director that identified the laboratories that were conducting tests for parameters required by legislation, Order Certificate of Approval (OWRA) or a Permit, Licence or Approval issued under Part V of the SDWA.**

WATER QUALITY MONITORING

- * Based on information provided by the owner/operator, samples were being taken and handled in accordance with instructions provided by the drinking-water system's laboratories.

- * The owner indicated that the required records are kept and will be kept for the required time period.

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).

REPORTING & CORRECTIVE ACTIONS

- * Corrective actions (as per Schedule 17) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.

The following AWQI's were reported for this inspection period:

January 21, 2014 (#115813) - Broken probe on chlorine analyser;

March 12, 2014 (#116384) - Depressurized main for maintenance; BWA affecting 43 residences;

August 26, 2014 (119818) - Depressurized main for maintenance; BWA affecting 3 residences.

- * All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.

- * All required written notices of adverse water quality incidents were provided as per O. Reg. 170/03 16-7.

- * In instances where written notice of issue resolution was required by regulation, the notice was provided as per O. Reg. 170/03 16-9.

- * Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.

- * The Annual Report containing the required information was prepared by February 28th of the following year.

- * Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.

- * The owner had evidence that all required notifications to all legal owners associated with the Drinking Water System had been made during the inspection period.

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. The owner/operating authority was not in compliance with the requirement to prepare Form 3 and associated documents as required by their Drinking Water Works Permit during the inspection period.**

The owner replaced the stand-by diesel generator with a natural gas generator. The Form 3 document and associated DWW Permit 5.7 requirements were not completed at the time of the inspection.

Action(s) Required:

SDWA 31(1)

31. (1) No person shall, (a) establish a new municipal drinking-water system or replace or carry out an alteration to a municipal drinking-water system except under the authority of and in accordance with an approval under this Part or a drinking-water works permit; or (b) use or operate a municipal drinking-water system that was established before or after this section comes into force except under the authority of and in accordance with an approval under this Part or municipal drinking-water licence.

**The operating authority is in the process of completing the Form 3 document and obtaining the required documentation as outlined in DWWP #270-201 Schedule B 5.0 Equipment with Emissions to the Air.

This information shall be submitted to the undersigned officer upon completion.

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.

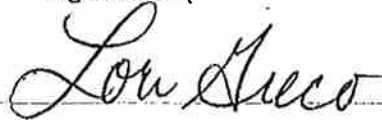
Not Applicable

SIGNATURES

Inspected By:

Lori Greco

Signature: (Provincial Officer):



Reviewed & Approved By:

Marnie Managhan

Signature: (Supervisor):



Review & Approval Date:

NOV 27/14

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.



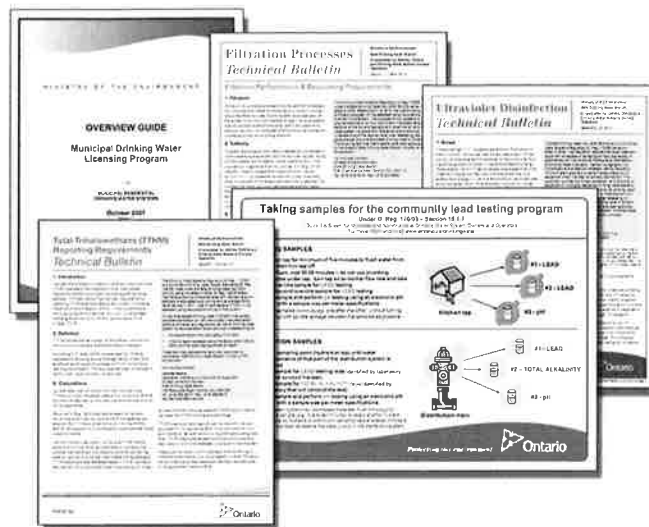
Stakeholder Appendix

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 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.



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



Inspection Rating Record

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2014-2015)

DWS Name: BRUCE MINES DRINKING WATER SYSTEM
DWS Number: 210000933
DWS Owner: Bruce Mines, The Corporation Of The Town Of
Municipal Location: Bruce Mines

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Detailed
Inspection Date: September 29, 2014
Ministry Office: Sault Ste. Marie Area Office

Maximum Question Rating: 754

Inspection Module	Non-Compliance Rating
Permit To Take Water	0 / 18
Capacity Assessment	0 / 42
Treatment Processes	4 / 107
Process Wastewater	0 / 20
Distribution System	0 / 21
Operations Manuals	0 / 42
Logbooks	0 / 42
Consumer Relations	0 / 8
Certification and Training	0 / 65
Water Quality Monitoring	0 / 160
Reporting & Corrective Actions	0 / 88
Treatment Process Monitoring	0 / 141
TOTAL	4 / 754

Inspection Risk Rating	0.53%
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FINAL INSPECTION RATING:	99.47%
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2014-2015)

DWS Name: BRUCE MINES DRINKING WATER SYSTEM
DWS Number: 210000933
DWS Owner: Bruce Mines, The Corporation Of The Town Of
Municipal Location: Bruce Mines

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Detailed
Inspection Date: September 29, 2014
Ministry Office: Sault Ste. Marie Area Office

Non-compliant Question(s)	Question Rating
Treatment Processes	
Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 3 and associated Permit condition 5.7 requirements were prepared in accordance with their Drinking Water Works Permit?	4
TOTAL QUESTION RATING	4

Maximum Question Rating: 754

Inspection Risk Rating	0.53%
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FINAL INSPECTION RATING:	99.47%
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