

2019

Superior-Greenstone District School Board

Annual Report on Drinking Water Systems

April 1, 2018 through March 31, 2019

Dorion Public School

R.R. 1

Loop Road

Dorion, Ontario P0T 1K0

Drinking water system number: **260015444**

Small Non-Municipal Non-Residential Designated Facility



Report prepared by:

Marc Paris
Manager of Plant Services
12 Hemlo Drive
Marathon, Ontario
1-807-229-0436 Phone

Sept 1, 2019

Superior-Greenstone District School Board

Annual Drinking Water Report

April 1, 2018 through March 31, 2019

Dorion Public School
R.R. 1 Loop Road Dorion, Ontario
P0T 1K0

Introduction

The Province of Ontario's *Drinking-Water Systems Regulation (Ontario Regulation 170/03)* requires this report for your information.

Within this report you will find the water quality data and other information the Superior-Greenstone District School Board was required to collect for the operating period April 1, 2018 through March 31, 2019.

Copies of this report have been sent to the Ministry of the Environment Climate and Change and the interested authority (the Ministry of Education)

Copies of this and past reports can be found at Dorion Public School or can be acquired by contacting the persons below. If you have any questions about the Dorion Public School water supply or this report, please call:

Marc Paris

Superior Greenstone District School Board Coordinator of Plant Services
1-807-229-5205

Or Dorion Public School Vice Principal:

Amanda Gyori at Dorion Public School ph: 807-857-2313 during normal school hours.

Water system information

Dorion Public School has been serviced by a single on-site groundwater well supply since the school was built in 1993. The well is a drilled well 6 7/8 inch diameter and completed to a depth of 133 feet, where water is obtained from a sand/gravel aquifer. Maximum flow is 2.0 litres per second.

In order to comply with the minimum treatment requirements contained in the regulation, ultraviolet disinfecting equipment was installed in August 2002.

A professional consulting firm, Engineering Northwest Ltd. of Thunder Bay, was hired by the Board to provide design services and final certification for the water works at the school. This engineering assessment and certification is a mandatory requirement of the regulation to ensure that the water system meets the minimum treatment requirements set forth in the regulation.

Equipment costs and operating expenses

The cost of the original treatment equipment, water system upgrades, and consulting services came to a total of approximately \$25,000 in the 2001-2002 operating period.

During the operating period of April 1, 2018 through March 31, 2019, the Board spent approximately \$4,000.00 testing, training, sampling and \$ 1200.00 on maintenance and upkeep related to the system.

Summary of notices and reports

Originally, as required by the new Drinking Water Regulations, the Superior-Greenstone District School Board submitted a notice to the Ministry of the Environment and to the interested authority (the Ministry of Education) advising it that the water supply at the school did not meet the minimum treatment requirements as outlined in the Regulations. This notice of non-compliance also advised that the Board had retained the services of an engineering consultant and planned to be in compliance by September 1, 2002.

In September 2002, after the new water works commenced operation, the Board submitted an engineer's report to the Ministry of the Environment and the interested authority (the Ministry of Education) as required by the regulation. The report certified that the Dorion Public School water works met all requirements of the Regulations.

During the 2006/2007 operating period, the Ministry of the Environment carried out an audit of the Dorion waterworks system and procedures being followed by the Superior-Greenstone DSB. Results of the audit were favourable with compliance being met and testing of the water taking place as required. As a result of the favourable audit results; excellent raw water quality from the well; and proper performance of the disinfection equipment; the Ministry of Environment granted a reduced testing frequency to Dorion Public School. Monthly sampling has now replaced the previously required weekly sampling process as long as the test results are good. All other sampling frequencies will remain the same.

During the 2008-2018 operating period, lead testing continued. The water system at Dorion PS test results were good with no concerns with regard to lead in the water.

March 2018, the Ministry of the Environment and Climate Control conducted an inspection of the Dorion PS well supply to assess compliance with the Safe Drinking Water Act and associated regulation, O. Reg. 170/03. As a result of the audit Superior Greenstone District School Board continues to operate regulated systems within the legislated framework at all times. **Refer to Appendix E**

During the April 1, 2018 to March 31, 2019 operating period, lead testing at the school and daycare locations took place. Monthly sampling continues with no adverse results after flushing. All other sampling frequencies remain the same.

Training

Ongoing training Operations of Small Drinking Water Systems continues as per legislation requirements. **Refer to Appendix G**

Adverse water quality notifications and corrective actions

During the period covered by this report April 1, 2018 through March 31, 2019. There were **NO** cases of adverse test results. All tests taken showed results that were fully acceptable under the current regulations for water quality.

Summary of water quality

As a result of the testing, treatment, and performance of the water system, over the past operating year, the Board is pleased to report that the water at Dorion Public School continues to be of a high standard, and safe for human consumption.

Appendix: Other information and testing

The regulation requires the Board to sample for various types of water quality parameters at prescribed frequencies. The results are presented in **Appendix B**.

In January 2016, Fluoride and Sodium testing was carried out as per regulation 170/03 to determine if there existed any risks related to sodium and fluoride in the drinking water system. Testing was performed at the school. Test results indicated drinking water was acceptable and met regulation. **See Appendix C**

In February 2016, additional testing was carried out to determine calcium levels after the installation of a new Hydro Flow Water Softener to verify calcium levels in the drinking water system. Testing was performed at the school. The test results indicated water supply was acceptable.

In 2018, additional lead testing was carried out for lead as per regulation 243/07 and 459/16 to determine if there existed any risks related to lead in the drinking water system. Testing was performed in the school and daycare locations. The test results showed that there were no adverse levels of lead present after flushing requirements. **See Appendix D**

On July 1, 2017, O. Reg. 243/07 was revoked and replaced by O. Reg. 459/16. This regulation includes dates by which all fixtures in all schools must be sampled. For schools offering instruction to students up to and including Grade 3, all fixtures must be sampled by January 1, 2020. For schools offering instruction to Grade 4 or higher, every fixture must be sampled by January 1, 2022. Fixtures that have been previously sampled (after June 7, 2007) are considered to have been sampled. **See Appendix D**

All records of water testing are electronically stored at Superior-Greenstone District School Board and a paper copy is available at Dorion Public School at R.R. 1, Loop Road, Dorion, Ontario.

Appendix A



Monthly Microbiological

2019

Testing Results

(One only submitted for report)



Work Order L2049125

RESULTS

[MANAGE GUIDELINES](#)[EXPORT TO EXCEL](#)

Apply Guidelines

- Select Client or ALS/Regulatory ▼

Header #1			Sample ID ▼	~R1 RAW	~D1 DISTRIBUTION B
#2			ALS ID ▼	<u>L2049125-1</u>	<u>L2049125-2</u>
#3			Date Sampled ▼	1/24/2018 10:41:00 AM	1/24/2018 10:49:00 AM
Analyte	Units	LOR		Water	Water
Escherichia Coli	MPN/100mL	0.0		0	-
Escherichia Coli	p/a/100mL	n/a		-	Absent
Heterotrophic Plate Count	CFU/mL	0.0		-	34
Total Coliforms	MPN/100mL	0.0		0	-
Total Coliforms	p/a/100mL	n/a		-	Absent

Appendix B



Quarterly Nitrate

2019

Testing Results

(One only submitted for report)



Work Order L2177681

RESULTS

MANAGE GUIDELINES

Apply Guidelines

- Select Client or ALS/Regulatory ▼

Header #1			Sample ID ▼	~E1 NITRATE
#2			ALS ID ▼	<u>L2177681-1</u>
#3			Date Sampled ▼	10/9/2018 9:32:00 AM
Analyte	Units	LOR	Water	
Nitrate and Nitrite as N	mg/L	0.040	0.110	
Nitrate (as N)	mg/L	0.020	0.110	
Nitrite (as N)	mg/L	0.010	<0.010	

Appendix C



5 Year Fluoride

2016

Testing Results



Work Order L1726298

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VIEW RESULTS

Identity

Work Order	L1726298
Job Reference	260015444
PO	31635
# of Samples	1
Quote	

Dates

Sample Received	22-Jan-2016
Client Request Date	26-Feb-2016
Released Date	12-Feb-2016

Client

Client	Superior-Greenstone District School Board
Office	MARATHON
Contact	Marc Paris
Phone	+1 807 229 0436
Fax	+1 807 229 1471
Address	Re: Dorion Public School P.O BAG 'A' 12 HEMLO DRIVE MARATHON, ON Canada, P0T 2E0

REQUEST DELIVERABLES



Work Order L1726298

DETAILS

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VIEW RESULTS

Duplicates

EXPORT TO EXCEL

Laboratory Sample ID	Client SampleID	Matrix	Analyte	Units	LOR	Original Result	Duplicate Result	RPD
Water								
WG2247425-4	Anonymous	Water	Vinyl chloride	ug/L	0.20	<0.20	<0.20	n/a
WG2247425-4	Anonymous	Water	1,1-dichloroethylene (vinylidene chlorid	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	Dichloromethane	ug/L	5	<5.0	<5.0	n/a
WG2247425-4	Anonymous	Water	1,2-dichloroethane	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	Carbon tetrachloride	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	Benzene	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	Trichloroethylene	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	Tetrachloroethylene (perchloroethylene)	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	Monochlorobenzene	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	1,2-Dichlorobenzene	ug/L	0.50	<0.50	<0.50	n/a
WG2247425-4	Anonymous	Water	1,4-Dichlorobenzene	ug/L	0.50	<0.50	<0.50	n/a
WG2250216-3	L1726298-1	Water	Glyphosate	ug/L	5	<5.0	<5.0	n/a
WG2250229-3	Anonymous	Water	Diuron	ug/L	1	<1.0	<1.0	n/a
WG2250310-3	Anonymous	Water	Antimony (Sb)-Total	ug/L	0.60	<0.60	<0.60	n/a
WG2250310-3	Anonymous	Water	Arsenic (As)-Total	ug/L	1	<1.0	<1.0	n/a
WG2250310-3	Anonymous	Water	Barium (Ba)-Total	ug/L	10	24	24	1.0
WG2250310-3	Anonymous	Water	Boron (B)-Total	ug/L	50	127	128	0.9
WG2250310-3	Anonymous	Water	Cadmium (Cd)-Total	ug/L	0.10	<0.10	<0.10	n/a
WG2250310-3	Anonymous	Water	Chromium (Cr)-Total	ug/L	1	<1.0	<1.0	n/a
WG2250310-3	Anonymous	Water	Selenium (Se)-Total	ug/L	1	<1.0	<1.0	n/a
WG2250310-3	Anonymous	Water	Sodium (Na)-Total	mg/L	0.50	6.52	6.45	1.2
WG2250310-3	Anonymous	Water	Uranium (U)-Total	ug/L	2	<2.0	<2.0	n/a
WG2251462-3	L1726298-1	Water	Diquat	ug/L	1	<1.0	<1.0	n/a
WG2251462-3	L1726298-1	Water	Paraquat	ug/L	1	<1.0	<1.0	n/a



Work Order L1726298

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Spikes

[EXPORT TO EXCEL](#)

Laboratory Sample ID	Client SampleID	Matrix	Analyte	Units	LOR	Spike Concentration	Sample Result	Spike Recovery	Recovery Limits
Water									
WG2250229-4	Anonymous	Water	Diuron	ug/L	1	10	<1.0 ug/L	93.1 %	50 - 150 %
WG2250310-4	Anonymous	Water	Antimony (Sb)-Total	ug/L	0.60	20	<0.60 ug/L	107.2 %	70 - 130 %
WG2250310-4	Anonymous	Water	Arsenic (As)-Total	ug/L	1	20	<1.0 ug/L	105.1 %	70 - 130 %
WG2250310-4	Anonymous	Water	Barium (Ba)-Total	ug/L	10	44.30	24 ug/L	N/A %	n/a %
WG2250310-4	Anonymous	Water	Boron (B)-Total	ug/L	50	227	127 ug/L	N/A %	n/a %
WG2250310-4	Anonymous	Water	Cadmium (Cd)-Total	ug/L	0.10	4	<0.10 ug/L	98.1 %	70 - 130 %
WG2250310-4	Anonymous	Water	Chromium (Cr)-Total	ug/L	1	40	<1.0 ug/L	97.7 %	70 - 130 %
WG2250310-4	Anonymous	Water	Selenium (Se)-Total	ug/L	1	40	<1.0 ug/L	111.1 %	70 - 130 %
WG2250310-4	Anonymous	Water	Sodium (Na)-Total	mg/L	0.50	8.52	6.52 mg/L	N/A %	n/a %
WG2250310-4	Anonymous	Water	Uranium (U)-Total	ug/L	2	4	<2.0 ug/L	108.3 %	70 - 130 %
WG2251579-4	L1726298-1	Water	Mercury (Hg)-Total	ug/L	0.10	0.10	<0.10 ug/L	91.2 %	70 - 130 %



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Standards

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Method Blanks

Laboratory Sample ID	Matrix	Analyte	Units	LOR	Result
Water					
WG2247425-2	Water	Vinyl chloride	ug/L	0.200	<0.20
WG2247425-2	Water	1,1-dichloroethylene (vinylidene chlorid	ug/L	0.500	<0.50
WG2247425-2	Water	Dichloromethane	ug/L	5.00	<5.0
WG2247425-2	Water	1,2-dichloroethane	ug/L	0.500	<0.50
WG2247425-2	Water	Carbon tetrachloride	ug/L	0.500	<0.50
WG2247425-2	Water	Benzene	ug/L	0.500	<0.50
WG2247425-2	Water	Trichloroethylene	ug/L	0.500	<0.50
WG2247425-2	Water	Tetrachloroethylene (perchloroethylene)	ug/L	0.500	<0.50
WG2247425-2	Water	Monochlorobenzene	ug/L	0.500	<0.50
WG2247425-2	Water	1,2-Dichlorobenzene	ug/L	0.500	<0.50
WG2247425-2	Water	1,4-Dichlorobenzene	ug/L	0.500	<0.50
WG2250077-1	Water	Fluoride (F)	mg/L	0.0200	<0.020
WG2250216-1	Water	Glyphosate	ug/L	5.00	<5.0
WG2250229-1	Water	Diuron	ug/L	1.00	<1.0
WG2250310-1	Water	Antimony (Sb)-Total	ug/L	0.600	<0.60
WG2250310-1	Water	Arsenic (As)-Total	ug/L	1.00	<1.0
WG2250310-1	Water	Barium (Ba)-Total	ug/L	10.0	<10
WG2250310-1	Water	Boron (B)-Total	ug/L	50.0	<50
WG2250310-1	Water	Cadmium (Cd)-Total	ug/L	0.100	<0.10
WG2250310-1	Water	Chromium (Cr)-Total	ug/L	1.00	<1.0
WG2250310-1	Water	Selenium (Se)-Total	ug/L	1.00	<1.0
WG2250310-1	Water	Sodium (Na)-Total	mg/L	0.500	<0.50
WG2250310-1	Water	Uranium (U)-Total	ug/L	2.00	<2.0
WG2251462-1	Water	Diquat	ug/L	1.00	<1.0
WG2251462-1	Water	Paraquat	ug/L	1.00	<1.0
WG2251579-1	Water	Mercury (Hg)-Total	ug/L	0.100	<0.10
WG2257669-1	Water	Alachlor	ug/L	0.100	<0.10
WG2257669-1	Water	Aroclor 1242	ug/L	0.0200	<0.020
WG2257669-1	Water	Oxychlordane	ug/L	0.100	<0.10
WG2257669-1	Water	Atrazine	ug/L	0.100	<0.10
WG2257669-1	Water	gamma-Chlordane	ug/L	0.100	<0.10
WG2257669-1	Water	Aroclor 1254	ug/L	0.0200	<0.020
WG2257669-1	Water	Atrazine Desethyl	ug/L	0.100	<0.10
WG2257669-1	Water	alpha-Chlordane	ug/L	0.100	<0.10
WG2257669-1	Water	Aroclor 1260	ug/L	0.0200	<0.020
WG2257669-1	Water	Azinphos-methyl	ug/L	0.100	<0.10



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WG2257669-1	Water	Alachlor	ug/L	0.100	<0.10
WG2257669-1	Water	Aroclor 1242	ug/L	0.0200	<0.020
WG2257669-1	Water	Oxychlordane	ug/L	0.100	<0.10
WG2257669-1	Water	Atrazine	ug/L	0.100	<0.10
WG2257669-1	Water	gamma-Chlordane	ug/L	0.100	<0.10
WG2257669-1	Water	Aroclor 1254	ug/L	0.0200	<0.020
WG2257669-1	Water	Atrazine Desethyl	ug/L	0.100	<0.10
WG2257669-1	Water	alpha-Chlordane	ug/L	0.100	<0.10
WG2257669-1	Water	Aroclor 1260	ug/L	0.0200	<0.020
WG2257669-1	Water	Azinphos-methyl	ug/L	0.100	<0.10
WG2257669-1	Water	p,p-DDE	ug/L	0.100	<0.10
WG2257669-1	Water	Benzo(a)pyrene	ug/L	0.0100	<0.010
WG2257669-1	Water	p,p-DDD	ug/L	0.100	<0.10
WG2257669-1	Water	Carbaryl	ug/L	0.200	<0.20
WG2257669-1	Water	p,p-DDT	ug/L	0.100	<0.10
WG2257669-1	Water	Carbofuran	ug/L	0.200	<0.20
WG2257669-1	Water	o,p-DDT	ug/L	0.100	<0.10
WG2257669-1	Water	Chlorpyrifos	ug/L	0.100	<0.10
WG2257669-1	Water	Diazinon	ug/L	0.100	<0.10
WG2257669-1	Water	Diclofop-methyl	ug/L	0.200	<0.20
WG2257669-1	Water	Dimethoate	ug/L	0.100	<0.10
WG2257669-1	Water	Malathion	ug/L	0.100	<0.10
WG2257669-1	Water	Metribuzin	ug/L	0.100	<0.10
WG2257669-1	Water	Metolachlor	ug/L	0.100	<0.10
WG2257669-1	Water	Phorate	ug/L	0.100	<0.10
WG2257669-1	Water	Prometryne	ug/L	0.100	<0.10
WG2257669-1	Water	Simazine	ug/L	0.100	<0.10
WG2257669-1	Water	Terbufos	ug/L	0.200	<0.20
WG2257669-1	Water	Triallate	ug/L	0.100	<0.10
WG2257669-1	Water	Trifluralin	ug/L	0.100	<0.10
WG2257774-1	Water	Dicamba	ug/L	0.200	<0.20
WG2257774-1	Water	Bromoxynil	ug/L	0.200	<0.20
WG2257774-1	Water	2,4-D	ug/L	0.200	<0.20
WG2257774-1	Water	Picloram	ug/L	0.200	<0.20
WG2257774-1	Water	MCPA	ug/L	0.200	<0.20
WG2258414-1	Water	2,4-Dichlorophenol	ug/L	0.300	<0.30
WG2258414-1	Water	2,4,6-Trichlorophenol	ug/L	0.500	<0.50
WG2258414-1	Water	2,3,4,6-Tetrachlorophenol	ug/L	0.500	<0.50
WG2258414-1	Water	Pentachlorophenol	ug/L	0.500	<0.50

Control Standards

No data available



Work Order L1726298

RESULTS

MANAGE GUIDELINES

EXPORT TO EXCEL

VIEW WORK ORDER INFO

CREATE NEW COC

Apply Guidelines

- Select Client or ALS/Regulatory -

Header #1 Sample ID			~E1 ROOM 23
#2 ALS ID			L1726298-1
#3 Date Sampled			1/20/2016 3:30:00 PM
Analyte	Units	LOR	Water
Fluoride (F)	mg/L	0.020	0.048
Antimony (Sb)-Total	ug/L	0.60	<0.60
Arsenic (As)-Total	ug/L	1.0	1.1
Barium (Ba)-Total	ug/L	10	230
Boron (B)-Total	ug/L	50	<50
Cadmium (Cd)-Total	ug/L	0.10	<0.10
Chromium (Cr)-Total	ug/L	1.0	<1.0
Mercury (Hg)-Total	ug/L	0.10	<0.10
Selenium (Se)-Total	ug/L	1.0	<1.0
Sodium (Na)-Total	mg/L	0.50	2.64
Uranium (U)-Total	ug/L	2.0	<2.0
Benzene	ug/L	0.50	<0.50
Carbon tetrachloride	ug/L	0.50	<0.50
Monochlorobenzene	ug/L	0.50	<0.50
1,2-Dichlorobenzene	ug/L	0.50	<0.50
1,4-Dichlorobenzene	ug/L	0.50	<0.50
1,2-dichloroethane	ug/L	0.50	<0.50



Work Order L1726388

DETAILS

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VIEW RESULTS

Identity

Work Order	L1726388
Job Reference	260015444
PO	31635
# of Samples	1
Quote	

Dates

Sample Received	22-Jan-2016
Client Request Date	02-Feb-2016
Released Date	28-Jan-2016

Client

Client	Superior-Greenstone District School Board
Office	MARATHON
Contact	Marc Paris
Phone	+1 807 229 0436
Fax	+1 807 229 1471
Address	Re: Dorion Public School P.O BAG 'A' 12 HEMLO DRIVE MARATHON, ON Canada, P0T 2E0

REQUEST DELIVERABLES



Work Order L1726388

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Duplicates

EXPORT TO EXCEL

Laboratory Sample ID	Client SampleID	Matrix	Analyte	Units	LOR	Original Result	Duplicate Result	RPD
Water								
WG2248132-4	Anonymous	Water	Chloroform	ug/L	2	<2.0	<2.0	n/s
WG2248132-4	Anonymous	Water	Bromodichloromethane	ug/L	2	<2.0	<2.0	n/s
WG2248132-4	Anonymous	Water	Dibromochloromethane	ug/L	2	<2.0	<2.0	n/s
WG2248132-4	Anonymous	Water	Bromoform	ug/L	2	<2.0	<2.0	n/s



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Method Blanks

Laboratory Sample ID	Matrix	Analyte	Units	LOR	Result
Water					
WG2248132-2	Water	Chloroform	ug/L	2.00	<2.0
WG2248132-2	Water	Bromodichloromethane	ug/L	2.00	<2.0
WG2248132-2	Water	Dibromochloromethane	ug/L	2.00	<2.0
WG2248132-2	Water	Bromoform	ug/L	2.00	<2.0

Control Standards

No data available



Work Order L1726388

RESULTS

MANAGE GUIDELINES

EXPORT TO EXCEL

VIEW WORK ORDER INFO

CREATE NEW COC

Apply Guidelines

- Select Client or ALS/Regulatory -

Header #1 Sample ID			~D1 DISTRIBUTION STATION A
#2 ALS ID			L1726388-1
#3 Date Sampled			1/20/2016 3:40:00 PM
Analyte	Units	LOR	Water
1,4-Difluorobenzene	%	Surrogate	102.1
Bromodichloromethane	ug/L	2.0	<2.0
Bromoform	ug/L	2.0	<2.0
Dibromochloromethane	ug/L	2.0	<2.0
Chloroform	ug/L	2.0	<2.0
Total THMs	ug/L	4.0	<4.0

Appendix D



Lead Flushing

2017-2018

Testing Results



now



January 22, 2019

Project No. 129600179

VIA EMAIL (kpatock@sgdsb.on.ca)

Ms. Karin Patock
Coordinator of Operations & Community Use (CUS)
Superior-Greenstone District School Board
P.O. Box 909, 500 Second Street West
Geraldton, ON P0T 1M0

Dear Ms. Patock:

**Re: Summary of 2018 Lead Drinking Water Testing Results
Dorion Public School, 175 Dorion Loop Road, Dorion, Ontario**

True Grit Engineering (TGE), now Stantec Consulting Ltd. (Stantec), is pleased to provide this report summarizing the 2018 drinking water testing results for lead at the Dorion Public School, located at 175 Dorion Loop Road in Dorion, Ontario.

Regulatory Criteria

Schools and child care centres are currently regulated by Ontario Regulation 243/07 *Schools, Private Schools and Child Care Centres* (O. Reg. 243/07) made under the Safe Drinking Water Act. O. Reg. 243/07 requires schools, private schools and child care centres to conduct once annual sampling of water between May 1 and October 31 from designated drinking water fixtures for lead. The Ontario Ministry of the Environment, Conservation and Parks (MECP) has established safe limits for many chemical, physical and biological parameters in drinking water in Ontario Regulation 169/03 *Ontario Drinking Water Quality Standards*, also referred to as the Ontario Drinking Water Standards (ODWS). In Ontario, the ODWS limit for lead in drinking water is 10 parts per billion (ppb).

O. Reg. 243/07 requires that in the case of a school in which instruction is given in the primary division within the meaning of the *Education Act*, at least one set of two one-litre samples must be taken before January 1, 2020 from every drinking water fountain and tap that is used in the preparation of food and drink or to provide drinking water for consumption for children under 18 years of age. This requirement is satisfied if at least one set of two one-litre samples from every drinking water fountain and tap was taken on or after June 7, 2007. O. Reg. 243/07 also requires that at least one third of the drinking water fountains and taps, in the case of a school in which instruction is given in the primary division, must be sampled in 2017 and at least the second third of the drinking water fountains and taps must be sampled in 2018. For schools where instruction is not given in the primary division, all designated drinking water fixtures must have been sampled before January 1, 2022.

O. Reg. 243/07 permits a reduction in the sampling frequency to once every three years if:

- for a period of at least 24 consecutive months, test results in respect of the plumbing in the buildings that house the school, private school or child care centre have been obtained, and none of the test results from the most recent 24 consecutive months has exceeded the standard prescribed for lead;
- every drinking water fountain and every tap used in the preparation of food or drink for children under 18 years of age in the school, private school or child care centre has been sampled at least once since June 7, 2007; and

- a notice has been submitted to the Director stating that the conditions described in the above clauses have been met.

Methodology

Annual lead testing for drinking water in schools and child care centres is required by O. Reg. 243/07. TGE, now Stantec, was retained by the Superior-Greenstone District School Board (SGDSB) to complete the 2018 testing at this school. The testing program involved collection of fourteen grab samples of water from seven locations in the building and laboratory analysis for lead.

Sampling was conducted by trained technicians in accordance with procedures outlined in O. Reg. 243/07 *Schools, Private Schools and Child Care Centres* made under the Safe Drinking Water Act. All samples were submitted under Chain of Custody to ALS Laboratory Group, a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory, for analysis of lead.

Sample collection occurred during the summer when no classes were in session and the building was not occupied by students. The regular flushing program was maintained.

Fourteen samples were collected on July 7, 2018 from the following seven locations in the school:

- the faucet located in the JK/SK classroom;
- the bottle filler fountain located in staff room hallway (bottle filler);
- the faucet located in the staff room;
- the faucet located in kitchen A18-12 (double basin);
- the faucet located in playroom A18-17;
- the faucet located in kitchen A18-21; and
- the faucet located in kitchen A18-22 (bar faucet).

The sampling protocol used at all locations is described below.

Sample Number	Description
Standing Sample (Sample 1)	First draw sample. Collected immediately upon opening the tap after the tap has sat unused for at least 6 hours.
Flushed Sample (Sample 2)	After flushing for 5 minutes the tap is allowed to sit unused for 30 – 35 minutes before sampling.

Results are considered acceptable when the lead concentration in the flushed sample (or in both samples) is 10 ppb or less. If lead concentrations exceed 10 ppb in the flushed sample, corrective actions are taken and the location is re-sampled. A matrix showing actions required based on the sampling results is provided below.

Standing Sample Result	Flushed Sample Result	Action Required
<10 ppb	<10 ppb	None
>10 ppb	<10 ppb	None – flushing program deemed to be effective.
>10 ppb	>10 ppb	Mitigation required and could consist of longer flush time or capital improvements (replacing faucets or piping). Resampling is required to verify efficacy of capital improvements.

Results

On July 7, 2018, seven designated drinking water fixtures or fountains were sampled. Lead concentrations in all of the collected flushed samples were below 10 ppb and no further action was required.

A summary of all drinking water fountains and taps in this school and how many have been sampled since 2007, is provided in Table 1, below.

Table 1: Summary of Drinking Water Fixtures Dorion Public School			
Fixture Type	Total #	# Sampled	% Sampled
Water Fountain	1	1	100%
Bottle Filler Fountain ¹	1	1	100%
Faucet	7	7	100%
DRINKING WATER FIXTURE TOTALS	9	9	100%
Note: 1. Both outlets on bottle filler fountains must be sampled. Each outlet (bubbler or bottle filler) accounts for one half of the fixture count.			

Based on the SGDSB water fixture inventory, 100% of designated drinking water fixtures have been sampled between 2007 and 2018.

The 2018 analytical results are summarized in Table 2, below, along with previous results dating back to 2017 for this facility.

Table 2: Summary of Results Dorion Public School						
Date	Laboratory Sample I.D.	Standing Sample (ppb)	Flushed Sample (ppb)	Sample Location Description	Fixture I.D.	Sample Location
Oct. 1, 2017	DOPS – 1	<1.0	<1.0	Bottle filler fountain in staff room hallway (bubbler)	A18-F4	A18-60
	DOPS – 2	2.0	1.2	Fountain in childrens' hallway	A18-F2	A18-57
	DOPS – 3	2.5	1.3	Faucet in snack and lunch room	A18-T1	A18-44
July 7, 2018	DOPS – 1	4.3	1.3	Faucet in JK/SK classroom (upper)	A18-T3	A18-47
	DOPS – 2	<1.0	<1.0	Bottle filler fountain in staff room hallway (bottle filler)	A18-F4	A18-60

Table 2: Summary of Results Dorion Public School						
Date	Laboratory Sample I.D.	Standing Sample (ppb)	Flushed Sample (ppb)	Sample Location Description	Fixture I.D.	Sample Location
	DOPS – 3	<u>21.3</u>	1.3	Faucet in staff room	A18-T5	A18-7
	DOPS – 4	2.6	<1.0	Faucet in kitchen (double basin)	A18-T6	A18-12
	DOPS – 5	3.5	1.2	Faucet in playroom	A18-T7	A18-17
	DOPS – 6	2.8	1.1	Faucet in kitchen (township/ community use)	A18-T9	A18-21
	DOPS - 7	3.0	3.3	Faucet in kitchen (bar)	A18-T8	A18-22
Note: Bold and <u>underlined</u> results indicate an exceedance of the ODWS lead criterion of 10 ppb.						

A summary of drinking water fixtures and mitigation actions required (if applicable) for each designated drinking water fixture in order to meet ODWS criteria is provided below in Table 3.

Table 3: Summary of Mitigation Measures Required Dorion Public School			
Fixture Type (Fixture I.D.)	Location	Description	Mitigation Required
Faucet (A18-T1)	Snack and lunch room, A18-44	Kitchen-type	None; regular flushing required.
Fountain (A18-F2)	Childrens' hallway, A18-57	Porcelain	None; regular flushing required.
Faucet (A18-T3)	JK/SK classroom (upper), A18-47	Kitchen-type	None; regular flushing required.
Fountain (A18-F4)	Staff room hallway, A18-60	Bottle Filler	None; regular flushing required.
		Bubbler	None; regular flushing required.
Faucet (A18-T5)	Staff room, A18-7	Kitchen-type	None; regular flushing required.
Faucet (A18-T6)	Kitchen (double basin), A18-12	Kitchen-type	None; regular flushing required.
Faucet (A18-T7)	Playroom, A18-17	Kitchen-type	None; regular flushing required.
Faucet (A18-T8)	Kitchen (bar), A18-22	Kitchen-type	None; regular flushing required.
Faucet (A18-T9)	Kitchen (township/ community use), A18-21	Kitchen-type	None; regular flushing required.

Conclusions

Based on the 2018 testing program, the following conclusions are presented.

- Lead concentrations in all of the flushed water samples collected from the seven sampling locations on July 7, 2018 were below the ODWS lead criterion.
- As required by O. Reg. 243/07 for a school in which instruction is given in the primary division, at least two thirds of the drinking water fixtures must be sampled by 2018. Between 2007 and 2018, 100% of the drinking water fixtures at Dorion Public School have been sampled.

Recommendations

The following recommendations are provided for this school.

- The daily flushing program for the school should continue. Ensure that all drinking water taps are flushed daily.
- Occupants should run tap water until cold before consuming.
- Sampling should be carried out again in 2019 to fulfill the requirements of O. Reg. 243/07.
- Consideration should be given to placing signs at drinking water taps that have been tested and comply with O. Reg. 243/07 advising users that water has been tested for lead and meets the ODWS lead criterion. Conversely, taps that are not intended for use for drinking water should be signed accordingly (e.g. hand washing only).



Closure

If you have any questions or require further information, please contact the undersigned at 807.626.5640.

Sincerely,

TRUE GRIT ENGINEERING, NOW STANTEC CONSULTING LTD.

A handwritten signature in blue ink, reading "Layla Miller", positioned above a horizontal line.

Layla Miller, B.Eng.
Engineer in Training
layla.miller@stantec.com

A handwritten signature in blue ink, reading "Paula Sdao", positioned above a horizontal line.

Paula Sdao, P.Eng.
Principal, Environmental Services
paula.sdao@stantec.com

LM/PS:lw

Enclosures: Figure 1: 2018 Sample Locations
 Laboratory Certificate of Analysis



Figure 1: 2018 Sample Locations



- Notes:
1. Building dimensions and layout are approximate and may not be exactly as shown.
 2. This drawing should be printed in colour.
 3. This drawing should be read in conjunction with the attached report (129600179).

LEGEND

- ◆ 2018 Sample Location
- () Previously Sampled Location
- ⦿ Drinking Water Faucet Location
- Drinking Water Fountain Location
- X Bottle Filler Fountain Location

now

Superior Greenstone District School Board
Lead Water Sampling
Dorion Public School
175 Dorion Loop Road, Dorion, Ontario

2018 Sample Locations



Designed By: AS
Approved By: PS
Date: December 12, 2018

FIGURE 1



Laboratory Certificate of Analysis



True Grit Engineering
ATTN: Paula Sdao
Re: Dorion Public School
1263 Innovation Drive
Thunder Bay ON P7B 0A2

Date Received: 10-JUL-18
Report Date: 19-JUL-18 15:12 (MT)
Version: FINAL

Client Phone: 807-626-5640

Certificate of Analysis

Lab Work Order #: L2126543

Project P.O. #: NOT SUBMITTED

Job Reference: C 500001093

of C Numbers:

Legal Site Desc:

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1081 Barton Street, Thunder Bay, ON P7B 5N3 Canada | Phone: +1 807 623 6463 | Fax: +1 807 623 7598
ALS CANADA LTD Part of the ALS Group An ALS Limited Company



ANALYTICAL GUIDELINE REPORT

L2126543 CONTD....

Page 2 of 4

19-JUL-18 15:12 (MT)

500001093

Sample Details Grouping	Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
L2126543-1	~P1 DORION PUBLIC SCHOOL	DOPS-1S								
Sampled By:	MB/KW on 07-JUL-18 @ 08:03						#1	#2		
Matrix:	PLUMBING STANDING									
Total Metals										
Lead (Pb)-Total		4.3		1.0	ug/L	18-JUL-18	10			
L2126543-2	~P2 DORION PUBLIC SCHOOL	DOPS-1F								
Sampled By:	MB/KW on 07-JUL-18 @ 08:49						#1	#2		
Matrix:	PLUMBING FLUSHED									
Total Metals										
Lead (Pb)-Total		1.3		1.0	ug/L	18-JUL-18	10			
L2126543-3	~P1 DORION PUBLIC SCHOOL	DOPS-2S								
Sampled By:	MB/KW on 07-JUL-18 @ 08:05						#1	#2		
Matrix:	PLUMBING STANDING									
Total Metals										
Lead (Pb)-Total		<1.0		1.0	ug/L	18-JUL-18	10			
L2126543-4	~P2 DORION PUBLIC SCHOOL	DOPS-2F								
Sampled By:	MB/KW on 07-JUL-18 @ 08:50						#1	#2		
Matrix:	PLUMBING FLUSHED									
Total Metals										
Lead (Pb)-Total		<1.0		1.0	ug/L	18-JUL-18	10			
L2126543-5	~P1 DORION PUBLIC SCHOOL	DOPS-3S								
Sampled By:	MB/KW on 07-JUL-18 @ 08:06						#1	#2		
Matrix:	PLUMBING STANDING									
Total Metals										
Lead (Pb)-Total		21.3		1.0	ug/L	18-JUL-18	*10			
L2126543-6	~P2 DORION PUBLIC SCHOOL	DOPS-3F								
Sampled By:	MB/KW on 07-JUL-18 @ 08:50						#1	#2		
Matrix:	PLUMBING FLUSHED									
Total Metals										
Lead (Pb)-Total		1.3		1.0	ug/L	18-JUL-18	10			
L2126543-7	~P1 DORION PUBLIC SCHOOL	DOPS-4S								
Sampled By:	MB/KW on 07-JUL-18 @ 08:08						#1	#2		
Matrix:	PLUMBING STANDING									
Total Metals										
Lead (Pb)-Total		2.6		1.0	ug/L	18-JUL-18	10			
L2126543-8	~P2 DORION PUBLIC SCHOOL	DOPS-4F								
Sampled By:	MB/KW on 07-JUL-18 @ 08:50						#1	#2		
Matrix:	PLUMBING FLUSHED									
Total Metals										
Lead (Pb)-Total		<1.0		1.0	ug/L	18-JUL-18	10			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Drinking Water Regulation (ODWQS) JAN.1,2018 = [Suite] - ON-DW-STANDARD+GUIDELINES

#1: Schedule 1 (Microbiological) and 2 (Chemical) Standards (JAN,2018)

#2: Ontario DW Aesthetic and Operational Guidelines



ANALYTICAL GUIDELINE REPORT

L2126543 CONTD....

Page 3 of 4

19-JUL-18 15:12 (MT)

500001093

Sample Details Grouping	Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
L2126543-9	~P1 DORION PUBLIC SCHOOL	DOPS-5S								
Sampled By:	MB/KW on 07-JUL-18 @ 08:09						#1	#2		
Matrix:	PLUMBING STANDING									
Total Metals										
Lead (Pb)-Total		3.5		1.0	ug/L	18-JUL-18	10			
L2126543-10	~P2 DORION PUBLIC SCHOOL	DOPS-5F								
Sampled By:	MB/KW on 07-JUL-18 @ 08:50						#1	#2		
Matrix:	PLUMBING FLUSHED									
Total Metals										
Lead (Pb)-Total		1.2		1.0	ug/L	18-JUL-18	10			
L2126543-11	~P1 DORION PUBLIC SCHOOL	DOPS-6S								
Sampled By:	MB/KW on 07-JUL-18 @ 08:12						#1	#2		
Matrix:	PLUMBING STANDING									
Total Metals										
Lead (Pb)-Total		2.8		1.0	ug/L	18-JUL-18	10			
L2126543-12	~P2 DORION PUBLIC SCHOOL	DOPS-6F								
Sampled By:	MB/KW on 07-JUL-18 @ 08:49						#1	#2		
Matrix:	PLUMBING FLUSHED									
Total Metals										
Lead (Pb)-Total		1.1		1.0	ug/L	18-JUL-18	10			
L2126543-13	~P1 DORION PUBLIC SCHOOL	DOPS-7S								
Sampled By:	MB/KW on 07-JUL-18 @ 08:12						#1	#2		
Matrix:	PLUMBING STANDING									
Total Metals										
Lead (Pb)-Total		3.0		1.0	ug/L	19-JUL-18	10			
L2126543-14	~P2 DORION PUBLIC SCHOOL	DOPS-7F								
Sampled By:	MB/KW on 07-JUL-18 @ 08:49						#1	#2		
Matrix:	PLUMBING FLUSHED									
Total Metals										
Lead (Pb)-Total		3.3		1.0	ug/L	19-JUL-18	10			

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Drinking Water Regulation (ODWQS) JAN.1,2018 = [Suite] - ON-DW-STANDARD+GUIDELINES

#1: Schedule 1 (Microbiological) and 2 (Chemical) Standards (JAN,2018)

#2: Ontario DW Aesthetic and Operational Guidelines

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
MET-DW-MS-TB	Water	Drinking Water Metals	APHA 3030E/EPA 6020A
Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).			

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL- THUNDER BAY, ONTARIO, CANADA		

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L2126543

Report Date: 19-JUL-18

Page 1 of 2

Client: True Grit Engineering
Re: Dorion Public School 1263 Innovation Drive
Thunder Bay ON P7B 0A2

Contact: Paula Sdao

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-DW-MS-TB		Water						
Batch R4132622								
WG2826055-11	DUP	L2126543-11						
Lead (Pb)-Total		2.8	3.0		ug/L	6.6	20	18-JUL-18
WG2826055-10	LCS							
Lead (Pb)-Total			97.4		%		80-120	18-JUL-18
WG2826055-9	MB							
Lead (Pb)-Total			<1.0		ug/L		1	18-JUL-18
WG2826055-12	MS	L2126543-12						
Lead (Pb)-Total			96.4		%		70-130	18-JUL-18
Batch R4133021								
WG2826849-2	LCS							
Lead (Pb)-Total			95.6		%		80-120	19-JUL-18
WG2826849-1	MB							
Lead (Pb)-Total			<1.0		ug/L		1	19-JUL-18

Appendix E



**Ministry of the Environment and Climate
Change**

Drinking Water Inspection Report

**Ministry of the Environment and
Climate Change**

Safe Drinking Water
Branch
Thunder Bay Regional Office
3rd Floor, Suite 331
435 James Street South
Thunder Bay, ON P7E 6S7
Tel.: 807-475-1513
Fax.: 807-475-1161
Toll Free: 1-800-875-7772

Ministère de l'Environnement

Direction du contrôle de la qualité de l'eau
potable
230, Bureau régional de Thunder Bay
3e étage, bureau 331
435 rue James sud
Thunder Bay, ON P7E 6S7
Tél.: 807-475-1513
Télec.: 807-475-1161



March 27, 2018

Superior-Greenstone District School Board
12 Hemlo Dr, Post Office Bag,
Marathon, ON P0T 1K0

Attn: Mr. Marc Paris, Manager of Plant Services/Transportation

**Re: Drinking Water System Inspection Program
2017-2018 Inspection Report for Dorion Public School Well Supply
Drinking Water System (DWS #260015444)
Inspection Number: 1-G9R6C**

Dear Mr. Paris,

Please find attached the inspection report for the Dorion Public School Well Supply Drinking Water System inspection report. The inspection was conducted on March 08, 2018. The time and cooperation of the drinking water system operators was appreciated.

There were two non-compliance issues or actions which require action for this report period.

There were no best management practice (BMP) issues identified during the inspection.

Copies of this inspection report have been sent to the Thunder Bay Health Unit, in accordance with the Ministry's Drinking Water Inspection Protocol.

If you have any questions concerning the content of this inspection report; or if you would like to discuss Ontario's drinking water legislation, please contact me at (807)475-1513 or don.gervais@ontario.ca.

Yours truly,

A handwritten signature in black ink, appearing to read 'D. Gervais', is positioned above the printed name.

Donald Gervais
Provincial Officer
Water Inspector
Thunder Bay District Office

:dg
Attach.

c.: Thunder Bay District Health Unit (abby.mackie@tbdhu.com)



Ministry of the Environment and Climate Change

DORION PUBLIC SCHOOL WELL SUPPLY

Inspection Report

Site Number:	260015444
Inspection Number:	1-G9R6C
Date of Inspection:	Mar 08, 2018
Inspected By:	Don Gervais

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OWNER INFORMATION:

Company Name:	SUPERIOR-GREENSTONE DISTRICT SCHOOL BOARD		
Street Number:	12	Unit Identifier:	
Street Name:	HEMLO Dr		
City:	MARATHON		
Province:	ON	Postal Code:	P0T 2E0

CONTACT INFORMATION**INSPECTION DETAILS:**

Site Name:	DORION PUBLIC SCHOOL WELL SUPPLY
Site Address:	175 DORION LOOP RD DORION P0T 1K0
County/District:	Dorion
MOECC District/Area Office:	Thunder Bay District
Health Unit:	THUNDER BAY DISTRICT HEALTH UNIT
Conservation Authority:	
MNR Office:	
Category:	Small Non-Municipal Non-Residential
Site Number:	260015444
Inspection Type:	Announced
Inspection Number:	1-G9R6C
Date of Inspection:	Mar 08, 2018
Date of Previous Inspection:	

COMPONENTS DESCRIPTION

Site (Name):	MOE DWS Mapping
Type:	DWS Mapping Point

Sub Type:

Site (Name):	DISTRIBUTION
Type:	Other

Sub Type: Other

Comments:
Dorion Public School building plumbing system.

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

Sub Type: Treatment Facility

Comments:
Primary disinfection is provided by ultraviolet (UV) radiation. The disinfection system includes a 5-micron pre-filter with duty and standby Trojan UV max model F units. UV units are sized to provide a minimum dosage of 40,000 mJ/cm² based on a flow rate of 1.26 L/s and a UVT (transmittance) of 75% and the system is designed with a duty and a standby unit. A UV-intensity monitor is installed on each unit and in the event that UV intensity falls below the

set level required for adequate disinfection, a solenoid operated valve is activated to prevent flow from the affected unit and an alarm is triggered.

Other related equipment includes an ion exchange water softener, located upstream of pressure tanks.

Site (Name): RAW WATER

Type: Source

Sub Type: Ground Water

Comments:

The drilled well is located approximately 30 meters from the northeast corner of the school property. The area has proper drainage with the construction of a ditch around the property boundary.

A septic disposal field is located approximately 120 metres west of the well. The nearest surface water source is a creek approximately 330 metres southwest of the well.

Land development in the area is mainly residential or undeveloped.

The well, constructed in 1977, is drilled to a depth of 41 meters and has a 170 mm steel casing projecting 370 mm above grade, with a sealed sanitary cap. The pump test conducted during well drilling yielded a sustained rate of 7.6 L/s.

.

INSPECTION SUMMARY:

Introduction

- The primary focus of this inspection is to confirm compliance with Ministry of the Environment and Climate Change (MOECC) legislation as well as conformance with ministry drinking water policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of this drinking water system focusing on the water source, treatment components, applicable distribution components, sampling and monitoring programs, and response to adverse water quality incidents.

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.

This inspection report does not in any way suggest that all applicable legislation and regulations were evaluated. It is, and remains the responsibility of the owner, to ensure compliance with all applicable legislative and regulatory requirements.

Source

- The drinking water system was registered with the Ministry and the required notices containing information about the system have been provided to the Ministry.
- All changes to the system registration information were provided within ten (10) days of the change.

Treatment Processes

- **An Engineering Evaluation Report was prepared as required by Schedule 21 of O. Reg. 170/03.**

An Engineering Evaluation Report for this facility, dated October 28, 2002, was prepared by Engineering Northwest Ltd. A signature of a Professional Engineer was placed on correspondence with the opinion that the drinking water systems meets the requirements of O. Reg. 170/03.

- **The system is capable of providing the required minimum level of treatment, as confirmed by a statement prepared by a licensed engineering practitioner.**

At the time of inspection the system was in compliance with the requirement to provide the minimum level of treatment as prescribed by subsection 2-2 (1) of Schedule 2 of O. Reg. 170/03. Treatment is provided by ultraviolet disinfection with one duty and one stand-by unit in place. They are equipped to operate with automatic switch-over, are alarmed and provision for automatic shut-off exists in the event of failure of both units.

- **Records indicated that the treatment equipment was operated in accordance with O. Reg. 170/03 at all times that water was being supplied to consumers.**

After reviewing the log book information it was determined that the treatment equipment was being operated in a manner that achieved disinfection at all times that water was being supplied to the users.

- **Records indicated that the treatment equipment was maintained in accordance with the requirements of Ontario Regulation 170/03.**

Treatment Processes

Logbooks

- **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.**

Documentation provided by the operating authority indicated that for every operational test and required sample the date, time, location, test results, and name of the person conducting the test was recorded.

Consumer Relations

- **Required documents were made available free-of-charge during normal business hours at a location accessible to the public.**

The operator of the designated facility is making the required information and documents set out in section 12, O. Reg. 170/03, available between 9 a.m. and 5 p.m. during normal business hours without charge to any person entering the facility.

Certification and Training

- **All operators and trained persons did possess the required certification/designation.**

Small Non-Residential DWSs serving DFs require a "trained person". A "trained person" is a person who is a "certified operator" or who, in the preceding 36 months, has successfully completed a course approved by the ministry that relates to the operation and routine maintenance of drinking water systems.

There are two certified operators listed that operate the Dorion Public School drinking water system, Mikko Lespi and Rhonda Marchand.

Water Quality Monitoring

- **Raw water microbiological sampling requirements prescribed by legislation had not been met.**

Raw water microbiological sample requirements prescribed by legislation were not met. A sample must be taken at least once per month from the raw water source.

A raw water sample was not taken for the month of April 2016.

In accordance with Schedule 12 of the Drinking Water System Regulation:

12-3. (1) If a drinking-water system obtains water from a raw water supply that is ground water or a drinking-water system is deemed under section 2 to obtain water from a raw water supply that is surface water, the owner of the system and the operating authority for the system shall ensure that a water sample is taken at least once every month from the raw water in each well that is supplying water to the system, before any treatment is applied to the water. (2) Revoked: O. Reg. 247/06, s. 23 (8). (3) 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 (b) total coliforms.

- **Distribution system microbiological sampling requirements prescribed by legislation had not been met.**

Distribution water microbiological sample requirements prescribed by legislation were not met. A sample must be taken at least once per month from the raw water source.

A distribution water sample was not taken for the month of April 2016.

12-2. (1) The owner of a drinking-water system and the operating authority for the system shall ensure that, (a)

Water Quality Monitoring

at least one distribution sample is taken every month.

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 (b) total coliforms.

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

A copy of the most recent inorganic/organic (Schedule 23 and 24 parameters) test results verify that all sampling and testing has been conducted in accordance with the section 15-2 and 15-4(2) of Schedule 15 of O.Reg. 170/. The last sample was taken January 20, 2016.

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

Copies of nitrate and nitrite test results generated during the inspection review period verify that all sampling and testing has been conducted in accordance with the section 13-7 of Schedule 13 of O. Reg. 170/03.

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

13-8 of O.Reg. 170/03 outlines the frequency of sampling. A sample is required to be collected once every 60 months. Schedule 6-1.1(7) states the owner is required to ensure that the sample is taken not more than 90 days before or after the fifth anniversary of the day a sample was taken in the previous 60-months. The inspection verified that all sampling and testing has been conducted in accordance with the Schedule 13-8 of O. Reg. 170/03.

A sodium sample was last collected on January 20, 2016. The sample result was 1.43 mg/L.

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

Schedule 13.9 of O.Reg. 170/03 outlines the frequency of sampling. A sample is required to be collected once every 60 months, the owner is required to ensure that the sample is taken not more than 90 days before or after the fifth anniversary of the day a sample was taken in the previous 60-months. The inspection verified that all sampling and testing has been conducted in accordance with the Schedule 13.9 of O. Reg. 170/03.

A fluoride sample was last collected on January 20, 2016. The sample result was 0.062 mg/L.

- **Water samples were taken at the prescribed location.**

During the inspection, it was determined that microbiological distribution samples are normally collected at different tap locations.

Raw water samples are collected from the raw water tap prior to any treatment.

- **The owner and operating authority had ensured that the UV system was equipped with an alarm or shut-off, and maintained to ensure adequate primary disinfection.**

The disinfection system has both a feature to provide automatic switch-over from a primary UV unit to a secondary unit as well as an alarm. An audible and visible alarm is activated at the location of the disinfection equipment, main administration office of the school and over the general public address system. Additionally, in the event of power failure or failure of both UV disinfection units, solenoid switches automatically prevent water from entering the plumbing and the alarms are triggered.

Water Quality Assessment

Water Quality Assessment

- **Records show that all water sample results taken during the review period met the Ontario Drinking Water Quality Standards.**
- **Results of Ministry audit sampling met the standards included in the Ontario Drinking Water Quality Standards (O. Reg. 169/03) and O. Reg 170/03.**

A sample was collected from the kitchen sink and analyzed for total coliforms and Escherichia coli. on March 20, 2018. The results did not indicate the presence of bacteriological contamination.

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. Raw water microbiological sampling requirements prescribed by legislation had not been met.

Raw water microbiological sample requirements prescribed by legislation were not met. A sample must be taken at least once per month from the raw water source.

A raw water sample was not taken for the month of April 2016.

In accordance with Schedule 12 of the Drinking Water System Regulation:

12-3. (1) If a drinking-water system obtains water from a raw water supply that is ground water or a drinking-water system is deemed under section 2 to obtain water from a raw water supply that is surface water, the owner of the system and the operating authority for the system shall ensure that a water sample is taken at least once every month from the raw water in each well that is supplying water to the system, before any treatment is applied to the water. (2) Revoked: O. Reg. 247/06, s. 23 (8). (3) 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 (b) total coliforms.

Action(s) Required:

The raw water sampling is not being conducted as required and an accurate sampling plan/schedule was not available at the time of inspection. The undersigned inspector requires by April 20, 2018 the development and implementation of a sampling plan/schedule that accurately reflects the requirements set out in the Regulation.

Sample Logs are available on the Ministry's Website entitled "Keeping Track Schedules and Sample Logs".

2. Distribution system microbiological sampling requirements prescribed by legislation had not been met.

Distribution water microbiological sample requirements prescribed by legislation were not met. A sample must be taken at least once per month from the raw water source.

A distribution water sample was not taken for the month of April 2016.

12-2. (1) The owner of a drinking-water system and the operating authority for the system shall ensure that, (a) at least one distribution sample is taken every month.

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 (b) total coliforms.

Action(s) Required:

The distribution water sampling is not being conducted as required and an accurate sampling plan/schedule was not available at the time of inspection. The undersigned inspector requires by April 20, 2018 the development and implementation of a sampling plan/schedule that accurately reflects the requirements set out in the Regulation.

Sample Logs", are available on the Ministry's Website entitled "Keeping Track Schedules and Sample Logs".

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:

Don Gervais

Signature: (Provincial Officer)



Reviewed & Approved By:

Dave Manol

Signature: (Supervisor)



Review & Approval Date:

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
and Climate Change
Drinking Water Inspection Report**

APPENDIX A

STAKEHOLDER APPENDIX

Key Reference and Guidance Material for Schools, Private Schools and Day Nurseries

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of schools, private schools and day nurseries frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. 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.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater and email drinking.water@ontario.ca to subscribe to drinking water news.



PUBLICATION TITLE	PUBLICATION NUMBER
Flushing and Testing for Lead in Drinking Water (March 2010)	6530b01
Flushing Your Plumbing: At-A-Glance Guide for Schools, Private Schools and Day Nurseries (March 2010)	6338b02
Sampling for Lead: At-A-Glance Guide for Schools, Private Schools and Day Nurseries (March 2010)	6339b01
A Manual for Operators of Schools, Private Schools and Day Nurseries with Excess Lead in their Drinking Water (August 2009)	7101e
Frequently Asked Questions: Lead Testing Program O. Reg. 243/07	8211e
Notice of Reduced Lead Sampling Form (February 2011)	7350e
Registration and Laboratory Services Notification Form	6271e01
Laboratories Licensed to Test for Lead	
Video – Flushing Plumbing in Schools, Private Schools and Day Nurseries (February 2010)	
Video – Sampling for Lead in Schools, Private Schools and Day Nurseries (February 2010)	

Principaux guides et documents de référence pour les écoles, les écoles privées et les garderies

De nombreux documents utiles peuvent vous aider à vous acquitter de vos responsabilités en matière de surveillance de la concentration de plomb dans l'eau potable. Vous trouverez ci-après une liste de documents que les responsables des écoles, des écoles privées et des garderies utilisent fréquemment.

Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le Centre d'information au public au 1 800 565-4923 ou au 416 325-4000, ou encore à picemail.moe@ontario.ca si vous avez des questions ou besoin d'aide.

Pour plus de renseignements sur l'eau potable



en Ontario, consultez le site www.ontario.ca/eaupotable ou envoyez un courriel à drinking.water@ontario.ca pour suivre l'information sur l'eau potable.

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Vidange et analyses afin de mesurer la concentration de plomb dans l'eau potable (mars 2010)	6530b01
Comment vidanger votre installation de plomberie – Guide pratique pour les écoles, les écoles privées et les garderies (mars 2010)	6338b02
Comment prélever des échantillons d'eau pour mesurer la concentration de plomb – Guide pratique pour les écoles, les écoles privées et les garderies (mars 2010)	6339b01
Manuel destiné aux responsables des écoles publiques, des écoles privées et des garderies d'enfants dont l'eau potable présente une teneur trop élevée en plomb (août 2009)	7101f
Foire aux questions : Programme d'analyse de la teneur en plomb de l'eau dans les collectivités (Règlement de l'Ontario 243/07)	8211f
Avis de réduction de la fréquence des prélèvements (février 2011)	7350f
Inscription et avis de demande de services de laboratoire	6271f01
Laboratoires autorisés à analyser la teneur en plomb	
Vidéo : Comment vidanger la plomberie dans les écoles, les écoles privées et les garderies (février 2010)	
Vidéo : Comment prélever des échantillons d'eau pour mesurer la concentration de plomb de l'eau potable dans les écoles, les écoles privées et les garderies (février 2010)	

ontario.ca/eaupotable



Ministry of the Environment
and Climate Change
Drinking Water Inspection Report

APPENDIX B -MOE Audit Sample Results



ONT MOE - Northern Region
ATTN: Donald Gervais
435 James St. S
Thunder Bay ON N/A

Date Received: 20- MAR- 18
Report Date: 21- MAR- 18 11:26 (MT)
Version: FINAL

Client Phone: 807- 475- 1513

Certificate of Analysis

Lab Work Order #: L2069794

Project P.O. #: 0SS61002
Job Reference: C 260015444

of C Numbers:

Legal Site Desc: Audit Sample from Inspection 260015444

Christina Shepherd
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1081 Barton Street, Thunder Bay, ON P7B 5N3 Canada | Phone: +1 807 623 6463 | Fax: +1 807 623 7598
ALS CANADA LTD Part of the ALS Group An ALS Limited Company



Environmental

ANALYTICAL GUIDELINE REPORT

L2069794 CONTD....

Page 2 of 3

21-MAR-18 11:26 (MT)

260015444

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2		
L2069794-1	~D DORION PUBLIC SCHOOL	Absent			p/a/100mL	20-MAR-18				
Sampled By:	DG on 20-MAR-18 @ 11:30									
Matrix:	DISTRIBUTION									
Bacteriological Tests										
Escherichia Coli					p/a/100mL	20-MAR-18				
Total Coliforms					p/a/100mL	20-MAR-18				

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
TC,EC-P/A-TB	Water	Total Coliform & E.coli Presence/Absence	APHA 9223 B
This analysis is carried out using procedures adapted from APHA Method 9223 "Enzyme Substrate Coliform Test". E. coli and Total Coliform are determined simultaneously. The sample is mixed with a mixture of hydrolyzable substrates and then incubated for 18 or 24 hours. The qualitative results are then obtained.			

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL- THUNDER BAY, ONTARIO, CANADA		

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



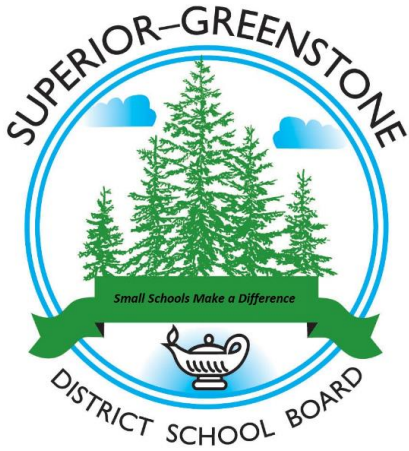
Quality Control Report

Workorder: L2069794 Report Date: 21-MAR-18 Page 1 of 2

Client: ONT MOE - Northern Region
 435 James St. S
 Thunder Bay ON N/A
Contact: Donald Gervais

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
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Appendix G



Training

CERTIFICATE OF ACHIEVEMENT

MIKKO LESPI

has successfully completed the following course and has been awarded 1.8 CEUs.

Operation of Small Drinking Water Systems - Online

* The person named in this certificate meets the requirements of Clause (b) of the definition of "Trained Person" in subsection 1 (1) of O. Reg. 170/03 (Drinking Water Systems) made under the Safe Drinking Water Act, 2002 for 36 months after the issue date.

Roman Martiuk
CEO

May 11, 2015

* Issue Date

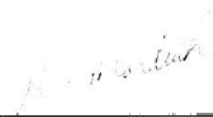
CERTIFICATE OF ACHIEVEMENT

RONDA MARCHAND

has successfully completed the following course and has been awarded 1.8 CEUs.

Operation of Small Drinking Water Systems - Online

* The person named in this certificate meets the requirements of Clause (b) of the definition of "Trained Person" in subsection 1 (1) of O. Reg. 170/03 (Drinking Water Systems) made under the Safe Drinking Water Act, 2002 for 36 months after the issue date.



Roman Martiuk
CEO

www.wcwc.ca

May 05, 2016

* Issue Date