

Lead Testing in School Drinking Water Resampling



Location:

Brockport Central School District Brockport, New York 14559

Prepared for:

Brockport Central School District 40 Allen Street Brockport, NY 14420

LaBella Project No. 2211782

September 21, 2021

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I. BACKGROUND

Under Subpart 67-4 of the New York Codes, Rules and Regulations, Title X, "all school districts and boards of cooperative educational services are required to test potable water for lead contamination, and to develop and implement a lead remediation plan, where applicable."

The Subpart 67-4 testing requirement was first promulgated under emergency legislation in 2016, and was subsequently signed into permanent law. The regulation requires that testing be performed again in 2020, and every five years thereafter. Due to the COVID-19 Pandemic, NYSDOH has granted an extension for this testing until June 30, 2021.

Lead is a toxic metal that can be harmful to human health when ingested. Young children, especially those 6 years and younger, are at particular risk for lead exposure because they have frequent hand-to-mouth activity and absorb lead more easily than do adults. Children's nervous systems are still undergoing development and thus are more susceptible to the effects of toxicants. Therefore, emphasis may be placed on assessment of lead exposure in schools and early childhood education facilities, where concentrations of a vulnerable population are regularly congregated.

Lead can be introduced into potable water by being present in the source water or, more commonly, by interaction of the water with fixtures and plumbing materials containing lead. Common sources of lead in potable water include solder, fluxes, pipes and pipe fittings, fixtures, and sediments. It is possible that different water outlets in a given building could have dissimilar concentrations of lead. It is also possible that, due to temporal fluctuations in water chemistry and physical conditions that may affect the integrity of the plumbing and the water being conveyed, the result obtained from a test at a given time may differ from the result obtained from a test at another time, even if the sampling procedures are identical.

II. PROJECT DESCRIPTION

Due to COVID-19 restrictions imposed by New York State in March of 2020, the Brockport Central School District adopted a "hybrid" teaching model which led to only partial capacity of student/teacher populations at their schools on a given day. As part of this model, drinking fountains were disabled and therefore not included in this testing.

Sampling by LaBella Associates and district staff began in May 2021. A total of ten (10) samples were lost in transit while shipping to the lab. These were resampled in a secondary round of testing. The results from these initial rounds of testing were compiled and delivered to the district in a report dated June 30, 2021. The district then carried out remedial measures on fixtures that had results above the Environmental Protection Agency's (EPA) action level of 15 micrograms per liter. LaBella resampled the remediated fixtures on July 27, 2021. This report consists only of the results from the fixtures resampled during this event.

In accordance with sections 1370-a and 1110, Subpart 67-4 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York and US EPA Guidelines, LaBella Associates performed sampling of potable water for lead contaminants for the Brockport Central School District. Sampling was conducted at the following locations:

- Fred W. Hill Elementary School
- Brockport High School
- Brockport High School Concessions Building

III. SAMPLING PROCEDURES AND SUMMARY OF RESULTS

LaBella Associates conducted a site walkthrough with district maintenance personnel to identify potable outlets required for testing. These outlets included bottle fillers, kitchen sinks, classroom sinks, and medical office sinks. Outlets categorically excluded from testing may include showers, science room sinks, art room sinks, tempered faucets, and mechanical room outlets. Also, drinking fountains and bubblers were excluded from testing as they were disabled due to COVID restrictions. Typically, excluded outlets are capable of being isolated by custodial staff, or are accompanied by warning signs to prohibit consumption.

In all locations, LaBella staff conducted sampling of target outlets prior to the facility opening and before any water was used. The water conditions were reported to be representative of normal consumption patterns (given current occupancy rates) with building occupancy controlled during stagnation and sampling periods.

In accordance with Subpart 67-4 requirements, sampling was limited to "first-draw" samples. A volume of the first 250 mL of water was taken from each cold water outlet in the inventory.

The samples were then promptly packaged and shipped to a NYS Department of Health Environmental Laboratory Approval Program (ELAP) accredited laboratory. Samples were analyzed utilizing EPA environmental analysis method 200.9 Rev 2.2 for lead in potable water.

Outlets that had exceeded the EPA lead in drinking water action level during the initial rounds of testing were identified, and district maintenance personnel applied remedial measures on the identified outlets. A second round of resampling consisted of these outlets, as well as outlets that had been lost in shipping or were not functional during the initial testing round. Results of the laboratory analyses, field testing and the visual on-site inspection were compiled and summarized.

Fred W. Hill Elementary School Resampling Summary				
Total Number of Resampled Outlets	Number of outlets at or below EPA action level (15 µg/L)	Number of outlets above EPA action level (15 µg/L)		
1	1	0		

Brockport High School Resampling Summary				
Total Number of Number of outlets at or below Resampled Outlets EPA action level (15 µg/L) Number of outlets above EPA action level (15 µg/L)				
7	3	4		

Brockport High School Concessions Resampling Summary				
Total Number of Resampled Outlets	Number of outlets at or below EPA action level (15 µg/L)	Number of outlets above EPA action level (15 µg/L)		
5	2	3		

Based on laboratory analyses of the samples collected, the following outlets were determined to exceed the EPA action level of 15 parts per billion (ppb) or equivalent 15 micrograms per liter (μ g/L). This table includes the outlets that failed both the initial and secondary rounds of testing. For a full

list of outlets sampled see Appendix A immediately following this report.

Brockport High School Samples Exceeding Action Level, Post-Remediation					
Sample ID	Sample Description	Date Sampled	Result (µg/L)		
HS Locker Room 129 Tap 1	Girl's Locker Room 129 Tap 1	7/27/2021	62.6		
HS Locker Room 129 Tap 2	Girl's Locker Room 129 Tap 2	7/27/2021	25.5		
HS Locker Room 129 Tap 3	Girl's Locker Room 129 Tap 3	7/27/2021	17.4		
HS Locker Room 197 Right	Girl's Locker Room 197 Right Sink	7/27/2021	18.6		

Brockport High School Concessions Samples Exceeding Action Level, Post-Remediation					
Sample ID	Sample Description	Date Sampled	Result (µg/L)		
Con. South EXT HB	Hose Bib, South	7/27/2021	26.4		
Con. Stand Ext. HB Bathrm	Hose Bib by Bathrooms	7/27/2021	21.7		
Con. Stand Ext. HB Service	Hose Bib by Serving Window	7/27/2021	15.8		

IV. Response and Recommendations

According to section Subpart 67-4.4 "Response" of the regulation, school districts shall prohibit the use of all outlets which exceed the 15 μ g action level. The outlet shall remain out of service until a lead remediation plan is implemented to reduce the level of lead, <u>and</u> resampling indicates lead levels at or below the action level. While the outlet is out of service, the district must supply an appropriate amount of potable water for drinking or cooking to building occupants.

LaBella would provide the following recommendations for outlets in exceedance of the action level:

- Follow up testing This may include an additional first draw sample, or second draw sample
 to further investigate and evaluate the condition of the plumbing system upstream of the
 affected outlets. Sample results may provide some insight on trends, issues with certain
 portions of the plumbing system, or links to specific outlets types and models.
- Remedial Measures The school district may elect to commence remediation of affected outlets with or without additional testing. Temporary remediation could include isolating outlets and providing alternate sources of potable drinking or cooking water. Permanent remediation could include replacing outlets, permanently isolating outlets, adding water filtration, or renovations to the plumbing system.

V. Reporting and Record Keeping

In accordance with Subpart 67-4 the district shall:

 Report the test results to the local health department as soon as practicable, but no more than 1 business day after the school received the laboratory report.

- Notify all staff and all persons in parental relation to children or students of the test results, in writing, as soon as practicable, but no more than 10 business days after the school received the laboratory report.
- The school shall make available, on the school's website, the results of all lead testing performed and lead remediation plans implemented pursuant to this Subpart, as soon as practicable, but no more than 6 weeks after the school received the laboratory reports.
- As soon as practicable, but no more than 10 business days after the school received the laboratory reports, the school shall report data relating to test results to the Department, local health department, and State Education Department, through the Department's designated statewide electronic reporting system.
- The school shall retain all records of test results, lead remediation plans, determinations that a building is lead-free, and waiver requests, for ten years following the creation of such documentation. Copies of such documentation shall be immediately provided to the Department, local health department, or State Education Department, upon request.

Appendix A Detailed Results Spreadsheet

7.27.2021 Retest					
Testing	New Identification Code	Description	Date	Time	Results
Order	New Identification Code	Description	Sampled	Sampled	(ug/L)
1	HS Nurses Exam Room C	Nurse's Exam Room C Sink	7/27/2021	501	<5.00
2	HS Nurses Exam Room D	Nurse's Exam Room D Sink	7/27/2021	501	<5.00
3	HS Locker Room 129 Tap 1	Girl's Locker Room 129 Tap 1	7/27/2021	510	62.6
4	HS Locker Room 129 Tap 2	Girl's Locker Room 129 Tap 2	7/27/2021	510	25.5
5	HS Locker Room 129 Tap 3	Girl's Locker Room 129 Tap 3	7/27/2021	510	17.4
6	HS Locker Room 197 Left	Girl's Locker Room 197 Left Sink	7/27/2021	515	11.3
7	HS Locker Room 197 Right	Girl's Locker Room 197 Right Sink	7/27/2021	515	18.6
8	Con. Stand Field East	Field Hose Line, East Side	7/27/2021	525	9.8
9	Con. Stand Field West	Field Hose Line, West Side	7/27/2021	525	6.45
12	Con. South EXT HB	Hose Bib, South	7/27/2021	525	26.4
10	Con. Stand Ext. HB Bathrm	Hose Bib by Bathrooms	7/27/2021	535	21.7
11	Con. Stand Ext. HB Service	Hose Bib by Serving Window	7/27/2021	535	15.8
13	FHS Pot Filler 1	Kitchen 119 Pot Filler 1	7/27/2021	1305	<5.00

Appendix B Laboratory Analytical Results

SLGi

Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117 804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer: Labella Associates (1126)

Address: 300 State Street

Rochester, NY 14614-1098

Attn:

Project: Brockport CSD Lead In Water

Location: 7.27.2021 Retest **Number:** 2211782, Phase 2

Order #: 431414

 Matrix
 Drinking Water

 Received
 08/02/21

 Reported
 08/05/21

PO Number:

Sample ID	Cust. Sample ID	Location					
Parameter		Method	Result	RL*	Units	Analysis Date	Analyst
431414-001	HS Nurses Exam Rm	Nurse's Exzam Rm C Sink					
Metals Ana	alysis						
Lead		EPA 200.9 Rev 2.2	<5.00	5.00	μg/L	08/05/21	DLJ
431414-002	HS Nurses Exam Rm	Nurse's Exam Rm D Sink					
Metals Ana	alysis						
Lead		EPA 200.9 Rev 2.2	<5.00	5.00	μg/L	08/05/21	DLJ
431414-003	HS Locker Rm 129 T	Girls Locker Rm 129 Tap					
Metals Ana	alysis						
Lead		EPA 200.9 Rev 2.2	62.6	50.0	μg/L	08/05/21	DLJ
431414-004	HS Locker Rm 129 T	Girls Locker Rm 129 Tap					
Metals Ana	alysis				_		
Lead		EPA 200.9 Rev 2.2	25.5	5.00	μg/L	08/05/21	DLJ
431414-005	HS Locker Rm 129 T	Girls Locker Rm 129 Tap					
Metals Ana	alysis						
Lead		EPA 200.9 Rev 2.2	17.4	5.00	μg/L	08/05/21	DLJ
431414-006	HS Locker Rm 197 Le	Girls Locker Rm 197 Left					
Metals Ana	alysis	-D				22/27/2/	5. .
Lead		EPA 200.9 Rev 2.2	11.3	5.00	μg/L	08/05/21	DLJ
431414-007	HS Locker Rm 197 Ri	Girls Locker Rm 197 Right					
Metals Ana	alysis	-D				22/27/24	5. .
Lead		EPA 200.9 Rev 2.2	18.6	5.00	μg/L	08/05/21	DLJ
431414-008	Con Stand Field East	Field Hose Line East Side					
Metals Ana	alysis	EDA 000 0 D 0 0	0.00	5 00	/1	00/05/04	DI I
Lead		EPA 200.9 Rev 2.2	9.80	5.00	μg/L	08/05/21	DLJ
431414-009	Con Stand Field West	Field Hose Line West Side					
Metals Ana Lead	alysis	EPA 200.9 Rev 2.2	C 45	F 00	/1	08/05/21	DLJ
			6.45	5.00	μg/L	06/05/21	DLJ
431414-010	Con South EXT HB	Hose Bib South					
Metals Ana Lead	aiysis	EPA 200.9 Rev 2.2	26.4	5.00	ug/l	08/05/21	DLJ
	0 0 15 115 5		∠0.4	5.00	μg/L	00/03/21	DLJ
431414-011	Con Stand Ext HB Ba	Hose Bib By Bathrooms					
Metals Ana Lead	aiysis	EPA 200.9 Rev 2.2	21.7	5.00	μg/L	08/05/21	DLJ
Leau		LI A 200.3 NGV 2.2	21.1	5.00	μg/ L	00/03/21	DLU

All internal QC parameters were met. Unusual sample conditions, if any, are described. Surrogate Spike results designated with "D" indicate that the analyte was diluted out. "MI" indicates matrix interference. Concentration and *Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. Solid PPM = mg/kg | PPB = $\mu g/kg$ and Water PPM = mg/k | PPB = $\mu g/k$. The test results reported relate only to the samples submitted.



Analysis Report

Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117 804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

Customer: Labella Associates (1126)

Address: 300 State Street

Rochester, NY 14614-1098

Attn:

Project: Brockport CSD Lead In Water

Location: 7.27.2021 Retest **Number:** 2211782, Phase 2

Order #: 431414

Drinking Water 08/02/21

Received 08/02/21 **Reported** 08/05/21

PO Number:

Matrix

Sample ID	Cust. Sample ID	Location					
Parameter		Method	Result	RL*	Units	Analysis Date	Analyst
431414-012	Con Stand Ext HB Se	Hose Bib By Serving					
Metals And	alysis						
Lead		EPA 200.9 Rev 2.2	15.8	5.00	μg/L	08/05/21	DLJ
431414-013	FHS Pot Filler 1	Kitchen 119 Pot Filler 1					
Metals And	alysis						
Lead		EPA 200.9 Rev 2.2	<5.00	5.00	μg/L	08/05/21	DLJ

431414-08/05/21 04:30 PM

Reviewed By: Jennifer Lee

Manager

EPA Regulatory Limits

 $\begin{array}{ccc} \textbf{Parameter} & \textbf{Reg. Limit} & \textbf{Unit} \\ \textbf{Lead} & 15.0 & \mu \text{g/L} \end{array}$

State Certifications

Method	Parameter	New York	Virginia
EPA 200.9 Rev 2.2	Lead	ELAP Certified	VELAP Certified

State	Certificate Number
New York	ELAP 63556
Virginia	VELAP 11259

Appendix C Laboratory Certification



ANDREW M. CUOMOGovernor

HOWARD A. ZUCKER, M.D., J.D.Commissioner

LISA J. PINO, M.A., J.D.Executive Deputy Commissioner

March 31, 2021

ELAP ID 11413 SCHNEIDER LABORATORIES GLOBAL, INC MR. FAYEZ ABOUZAKI 2512 WEST CARY STREET RICHMOND, VA 23220-5117 ifaszewski@slabinc.com

Certified Mail & Email

Dear Mr. Abouzaki,

The review of your laboratory's renewal application through the New York State (NYS) Department of Health's Environmental Laboratory Approval Program (ELAP) for a certificate of approval will require the evaluation of additional information, and therefore has not been completed. Please note that Article 4, Section 401, and Subsection 2 of the State Administrative Procedure Act states:

"When a licensee has made timely and sufficient application for a renewal of a license or a new license with the reference to any activity of a continuing nature, the existing license does not expire until the application has been finally determined by the agency ..."

The 2020-2021 NYS ELAP certificate of approval issued to your laboratory remains in effect, without regard to the expiration date of April 1, 2021, printed on the certificate. A copy of this letter may be provided to any person inquiring as to the status of your certificate.

If you have any questions, please contact ELAP at the New York State Department of Health, Wadsworth Center, Empire State Plaza, Albany, NY 12237; by phone at (518) 485-5570; or by email at elap@health.ny.gov.

Sincerely,

Victoria A. Pretti

Director and QA Officer

cc. L. McNaughton

NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER



Expires 12:01 AM April 01, 2021 Issued April 01, 2020

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. FAYEZ ABOUZAKI SCHNEIDER LABORATORIES GLOBAL, INC 2512 WEST CARY STREET RICHMOND, VA 23220-5117 NY Lab Id No: 11413

is hereby APPROVED as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (2003) for the category ENVIRONMENTAL ANALYSES POTABLE WATER

All approved analytes are listed below:

Metals I

Lead, Total

EPA 200.9 Rev. 2.2



Serial No.: 61370

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

