



healthAIR - Industrial Hygiene Services cleanWATER - Consulting & Testing Services safeEARTH - Hazardous Waste & Recycling Services

November 18, 2022

Mr. Bernie Bowers Operations Supervisor Wyandotte Public Schools 639 Oak Street Wyandotte, Michigan 48192 Bowersb@wy.k12.mi.us

#### RE: AEG Project # AE220046

Lead Drinking Water Sampling Washington Elementary School

Dear Mr. Bowers:

Pursuant to the request of Wyandotte Public Schools, Arch Environmental Group, Inc. (AEG) collected five (5) representative first draw drinking water lead samples on November 5, 2022, at Washington Elementary School during normal usage period.

#### General Information about Lead

There is no federal law requiring testing of drinking water in schools and childcare facilities, except for those that have and/or operate their own public water system and therefore are subject to comply with the Safe Drinking Water Act (SDWA). Drinking water programs are conducted on a voluntary basis.

#### Lead enters drinking water:

#### 1. Through Corrosion

Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipe and lead solder (commonly used until 1986) as well as faucets, valves, and other components made of brass. The physical/chemical interaction that occurs between the water and plumbing is referred to as corrosion. The extent to which corrosion occurs contributes to the amount of lead that can be released into the drinking water.

#### 2. Faucet Aerators

Many taps that are used to provide water for human consumption have an aerator as part of the faucet assembly. Screens are not intended to remove contaminants in the water but may trap sediment or debris as water passes through the faucet. Lead bearing sediment may end up in drinking water from physical corrosion of leaded solder and can build up in the aerator over time.

#### 3. Galvanized Piping

Additionally, galvanized pipes are old iron pipes that were installed in many homes built before the 1960s. Over many years, old corrosion scales build up inside the walls of galvanized pipes. These pipes can cause discolored water and pressure issues. Galvanized pipes can also release lead in water if you have or ever have had a lead service line.

Washington Elementary School

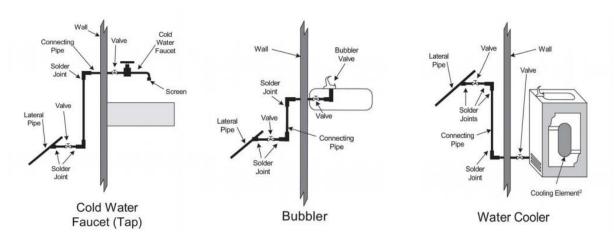
#### 4. Brass Pipes, Faucets Fittings and Valves

Brass used prior to 2014 to deliver drinking water can contribute to lead levels at the tap. Lead has long been used in the foundry process to make brass castings pressure tight. Lead is sometimes added in concentrations of about 2%.

#### **Action Levels**

The Lead and Copper Rule (LCR) is a treatment technique rule. Instead of setting a maximum contaminant level (MCL) for lead or copper, the rule requires public water systems to take certain actions to minimize lead and copper in drinking water. The Action Level for lead is 15 ug/L (15 ppb). Beginning January 1, 2025, the action level for lead in the State of Michigan will be lowered to 12 ug/L (12 ppb). In August 2016, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) recommended school districts use the contaminate level goal of 5 ug/L (5 ppb). Finally, in May of 2019, The American Academy of Pediatrics called for new federal standards to ensure water lead concentrations do not exceed 1 ug/L (1 ppb). For this sampling event, the district shall utilize 12 ug/L (ppb) as the Action Level.

#### **Common Drinking Water Outlets**



#### **Collection Procedures**

All water samples were collected utilizing 250 milliliter (mL) sample bottles as recommended in the August 1, 2016, Version 3.0 "EGLE Guidance on Drinking Water Sampling for Lead and Copper at Schools and Daycares on Community Water Supplies". Sample results are representative of the specific fixture sampled and do not represent the distribution system or other fixtures.

#### First Draw Sampling:

AEG collected first draw samples. A first draw is the water that is the first to come out of the tap after the period of 8-24 hours of inactivity.

All locations sampled identified lead below the 12 ug/L Action Level. No further action is recommended at this time.



If you have any questions regarding the report, please feel free to contact the cleanWATER team at (248) 426-0165 [office].

Sincerely,

Arch Environmental Group, Inc.

**Environmental Services** 

Sabrina Fouche

Consultant, D-5 Waterworks Operator #22153

Attachments: Results Table

Analytical Results & Chain of Custody





# Wyandotte Public Schools Drinking Water Analysis Project Number: AE220046

#### **Washington Elementary School**

Date of Sampling: November 5, 2022

Sampler: Zachary Fortin

Sample #	Location	Type <sup>1</sup>	Time Collected	District Lead Action Level (ug/L) <sup>2</sup>	Lead Results (ug/L)	Aerator Present Y/N	POU Filter Present Y/N	Filter Date/Color	Notes
Washington-01	Hallway Adjacent to Room 116, Hydration Station, Bottle Fill	HS	11:02 AM	12	ND <sup>3</sup>	Υ	Y	Green	Initial First Draw
Washington-02	Hallway Next to Room 124, Water Cooler	WC	10:50 AM	12	ND	Ν	N	Unknown	Initial First Draw
Washington-03	Hallway Next to Room 216, Hydration Station, Water Cooler	HS	11:05 AM	12	ND	N	Υ	Unknown	Initial First Draw
Washington-04	Hallway Next to Room133, Water Cooler	WC	10:57 AM	12	ND	N	N	Unknown	Initial First Draw
Washington-05	Teachers Lounge, Room 222, Kitchen Faucet	KF	11:08 AM	12	ND	Υ	N	N/A	Initial First Draw

<sup>1)</sup> Type: B = Bubbler, HS = Hydration Station, BT = Single Bottle Fill, WC = Single Water Cooler, C = Combination Sink, F = Faucet, KF = Kitchen Faucet, I = Ice Machine, KK = Kitchen Kettle, PC = Plumed Coffee Machine, G = Glass Filler

<sup>2)</sup> https://www.epa.gov/sites/default/files/2016-06/documents/npwdr\_complete\_table.pdf

<sup>3)</sup> ND = Non-Detected at Reported Detection Limit of 1 ug/L



2105 Pless Drive Brighton, Michigan 48114 Phone (810)229-7575 Fax (810)229-8650 E-mail bai-brighton@sbcglobal.net

November 16, 2022

Arch Environmental Group 37720 Interchange Dr. Farmington Hills, MI 48335

Subject: Washington Elementary School IFD

AE220046 - WPS

Dear Ms. Sendra:

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 11/09/2022 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 85906 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely, Brighton Analytical, L.L.C.







2105 Pless Drive Brighton, Michigan 48114 Phone: (810)229-7575 (810)229-8650 e-mail:bai-brighton@sbcglobal.net EGLE Certified #9404 NELAC Accredited #176507

Sample Date/Time: 11/05/2022 11:02 Submit Date/Time: 11/09/2022 13:40

Report Date: 11/16/2022

Arch Environmental Group 37720 Interchange Dr. Farmington Hills, MI 48335

BA Project #

85906

Project Name:

Washington Elementary School IFD

Project Number:

**AE220046 - WPS** 

BA Sample ID **CS03238** 

Sample ID: Washington-01 Hallway Adj. Room 116 HydSta BF

Analyte Name	Result Units		RL	MCL	Method Reference	Analysis Time	Analyst	Analysis Date
Drinking Water Metal Analysis								
Total Lead (Drinking Water)	Not detected 1	ıg/L	1	15	EPA 200.8 rev5.4	11:21	LT	11/15/2022

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

11/16/2022



2105 Pless Drive Brighton, Michigan 48114 Phone: (810)229-7575 (810)229-8650 e-mail:bai-brighton@sbcglobal.net EGLE Certified #9404 NELAC Accredited #176507

Sample Date/Time: 11/05/2022 10:50 Submit Date/Time: 11/09/2022 13:40 Report Date: 11/16/2022 Arch Environmental Group 37720 Interchange Dr.

Farmington Hills, MI 48335

BA Project # 859

85906

Project Name:

Washington Elementary School IFD

Project Number:

**AE220046 - WPS** 

BA Sample ID **CS03239** 

Sample ID: Washington-02 Hallway Next Room 124 Water Cooler

Analyte Name	Result Un		RL MCL		Method Reference	Analysis Time	Analyst	Analysis Date
Drinking Water Metal Analysis								
Total Lead (Drinking Water)	Not detected	ıg/L	1	15	EPA 200.8 rev5.4	11:23	LT	11/15/2022

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

11/16/2022



2105 Pless Drive Brighton, Michigan 48114 Phone: (810)229-7575 (810)229-8650 e-mail:bai-brighton@sbcglobal.net EGLE Certified #9404 NELAC Accredited #176507

Sample Date/Time: 11/05/2022 11:05 Submit Date/Time: 11/09/2022 13:40 Report Date: 11/16/2022

Arch Environmental Group 37720 Interchange Dr. Farmington Hills, MI 48335

BA Project #

85906

Project Name:

Washington Elementary School IFD

**AE220046 - WPS** 

BA Sample ID CS03240 Project Number:

Sample ID: Washington-03 Hallway Next Room 26 HydSta WC

Analyte Name	e Result Units		RL	MCL	Method Reference	Analysis Time	Analyst	Analysis Date
Drinking Water Metal Analysis								
Total Lead (Drinking Water)	Not detected u	g/L	1	15	EPA 200.8 rev5.4	11:25	LT	11/15/2022

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date 11/16/2022



2105 Pless Drive Brighton, Michigan 48114 Phone: (810)229-7575 (810)229-8650 e-mail:bai-brighton@sbcglobal.net EGLE Certified #9404 NELAC Accredited #176507

Sample Date/Time: 11/05/2022 10:57 Submit Date/Time: 11/09/2022 13:40 Report Date: 11/16/2022

Arch Environmental Group 37720 Interchange Dr. Farmington Hills, MI 48335

BA Project #

85906

Project Name: V

Washington Elementary School IFD

Project Number:

AE220046 - WPS

BA Sample ID **CS03241** 

Sample ID: Washington-04 Hallway Next Room 133 Water Cooler

Analyte Name	Result	Units	RL	MCL	Method Reference	Analysis Time	Analyst	Analysis Date
Drinking Water Metal Analysis								
Total Lead (Drinking Water)	Not detected u	ıg/L	1	15	EPA 200.8 rev5.4	11:32	LT	11/15/2022

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date 11/16/2022



2105 Pless Drive Brighton, Michigan 48114 Phone: (810)229-7575 (810)229-8650 e-mail:bai-brighton@sbcglobal.net EGLE Certified #9404 NELAC Accredited #176507

Sample Date/Time: 11/05/2022 Submit Date/Time: 11/09/2022

Report Date: 11/16/2022

Arch Environmental Group 37720 Interchange Dr. Farmington Hills, MI 48335

BA Project #

85906

Project Name:

Washington Elementary School IFD

Project Number:

AE220046 - WPS

BA Sample ID **CS03242** 

Sample ID: Washington-06 Teachers Lounge Room 222 Kitchen Faucet

Analyte Name	Result Uni		RL	MCL Method Reference		Analysis Time	Analyst	Analysis Date
Drinking Water Metal Analysis								
Total Lead (Drinking Water)	Not detected	ıg/L	1	15	EPA 200.8 rev5.4	11:35	LT	11/15/2022

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

11:08

13:40

MCL = Maximum contaminant Levels.

Analysis not specifically identified as drinking water are for non-regulatory compliance purposes.

Released by

Date

11/16/2022

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4) (11 V	Nashington-04 Hallway Next to Room133, Wa Cooler	10:57	11/5/2022					Х							DW	X									
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## BRIGHTON ANALYTICAL, LLC

# QUALITY ASSURANCE/QUALITY CONTROL

### ICP-MS METHOD 200.8/6020

#### REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date:	11/15/2022	Standard ID:	101722 H2O	Batch: 1	1/14/2022 B1
Matrix Spike Lab ID:	CS03242	- Matrix:	Total	Analyst:	LT
		- Indana.		-	

Matrix Spike - Precision *		Precision *		Matrix Spike	e - Accurac	y**	Miscellaneous***			
Metals	Matrix Spike (ug/L)	Matrix Spike Dup (ug/L)	RPD (%)	Spk Conc (ug/L)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/L)	Method Blk (ug/L)	LCS- Method STD (%)	Ind. Std. (%)
Lead	1094	984	10.6	1000	109.4	98.4	0	<1	106.7	109.9

<sup>\*</sup> Matrix spike precision range +/- 20% RPD

Comments:			

<sup>\*\*</sup> Matrix spike accuracy range +/- 20% recovery

<sup>\*\*\*</sup> LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery