



December 27, 2018

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

RE: **AEG Project #AE180812**
Lead Drinking Water Sampling
Wilson Middle School Revision 1

Dear Mr. Bowers:

Pursuant to the request of Wyandotte Public Schools, Arch Environmental Group, Inc. (AEG) collected fourteen (14) representative first draw drinking water lead samples on October 13, 2018, at Wilson Middle School.

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.

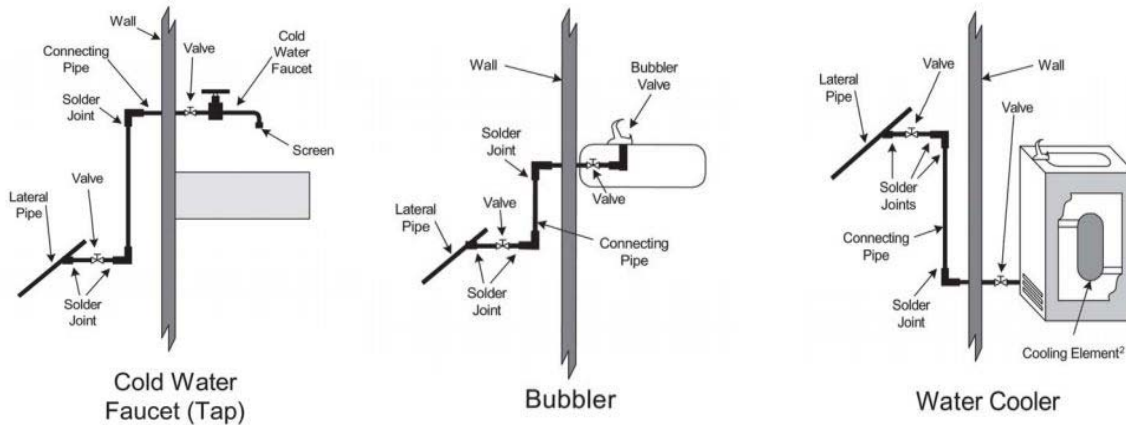
Lead enters drinking water:

- 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 pipe.
- 4. Brass Pipes, Faucets Fittings and Valves*
Brass devices passing the test can contribute to lead levels at the tap.

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 MDEQ recommended school districts use the contaminate level goal of 5 ug/L (5 ppb). For this sampling event, the District shall utilize 15 ug/L (ppb) as the Action Level.

Common Drinking Water Outlets



Collection Procedures

All water samples were collected utilizing 250 milliliters (mL) sample bottles as recommended in the August 1, 2016, Version 3.0 "MDEQ Guidance on Drinking Water Sampling for Lead and Copper at Schools and Daycares on Community Water Supplies".

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.

Locations below Action Level

- Wilson-01: Kitchen, 3-Compartment Sink, South Wall, Middle Faucet.
- Wilson-03: Kitchen Kettle, Next to Ovens.
- Wilson-04: In Hallway, Outside Cafeteria, Water Cooler.
- Wilson-05: In Hallway, Outside Cafeteria, Bottle Fill.
- Wilson-06: Staff Lounge, Faucet.
- Wilson-07: In Hallway, Across from Room 108, Water Cooler.
- Wilson-08: In Hallway, Across from Room 108, Bottle Fill.
- Wilson-09: In Hallway, Across from Room 115, Bubbler.
- Wilson-10: In Hallway, Across from Room 206, Water Cooler.
- Wilson-11: In Hallway, Across from Room 206, Bottle Fill.
- Wilson-12: In Main Office, Right of Principal's Office, Bubbler.
- Wilson-13: In Hallway, Left of Room 33, Water Cooler.
- Wilson-14: In Hallway, Left of Room 33, Bottle Fill.

Locations above Action Level

- Wilson-02: Kitchen, 3-Compartment Sink, South Wall, Right Faucet.

The District permanently removed the 3-compartment kitchen sink from service. Currently no additional actions are necessary at this location.

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



Lauren Koloski

Attachments: Results Table
Analytical Results & Chain of Custody



**Wyandotte Public Schools
Lead Drinking Water Analysis
Project Number: AE180812**

Wilson Middle School							
Date of Sampling: 10/13/2018							
Sampler: Lindsey Eveleth							
Sample #	Location	Type ¹	Time Collected	Internal Action Level (ug/L)	Lead Results (ug/L)	Aerator Present Y/N	Notes
Wilson-01	Kitchen, 3-Compartment Sink, South Wall, Middle Faucet	KF	10:56 AM	15	4	N	First Draw
Wilson-02	Kitchen, 3-Compartment Sink, South Wall, Right Faucet	KF	10:58 AM	15	23	Y	First Draw
Wilson-03	Kitchen Kettle, Next to Ovens	KK	11:00 AM	15	1	N	First Draw
Wilson-04	In Hallway, Outside Cafeteria, Water Cooler	BT	11:07 AM	15	ND ³	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not a lead lined.
Wilson-05	In Hallway, Outside Cafeteria, Bottle Fill	BT	11:09 AM	15	ND	N	First Draw
Wilson-06	Staff Lounge, Faucet	KF	11:13 AM	15	2	N	First Draw
Wilson-07	In Hallway, Across from Room 108, Water Cooler	BT	11:17 AM	15	ND	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not a lead lined.
Wilson-08	In Hallway, Across from Room 108, Bottle Fill	BT	11:19 AM	15	ND	N	First Draw
Wilson-09	In Hallway, Across from Room 115, Bubbler.	B	11:25 AM	15	2	N	First Draw
Wilson-10	In Hallway, Across from Room 206, Water Cooler	BT	11:30 AM	15	1	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not a lead lined.
Wilson-11	In Hallway, Across from Room 206, Bottle Fill	BT	11:32 AM	15	ND	N	First Draw

1) Type: B = Bubbler, BT = Bottle Fill/Cooler, WC = Water Cooler, C = Combination Sink, F = Faucet, KF = Kitchen Faucet, I = Ice Machine, KK = Kitchen Kettle, PC = Plumed Coffee
 2) <https://www.epa.gov/your-drinking-water/table-regulated-drinking-water-contaminants>
 3) ND = Non Detected at Reported Detection Limit of 1 ug/L
 4) NT = Not Tested



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Wilson-12	In Main Office, Right of Principal's Office, Bubbler	B	11:33 AM	15	1	N	First Draw
Wilson-13	In Hallway, Left of Room 33, Water Cooler	BT	11:38 AM	15	ND	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not a lead lined.
Wilson-14	In Hallway, Left of Room 33, Bottle Fill	BT	11:40 AM	15	ND	N	First Draw

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