



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

November 9, 2018

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

RE: AEG Project #AE180812

Lead Drinking Water Sampling JoBrighton Skills Center

Dear Mr. Bowers:

Pursuant to the request of Wyandotte Public Schools, Arch Environmental Group, Inc. (AEG) collected ten (10) representative first draw drinking water lead samples on October 13, 2018, at JoBrighton Skills Center.

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

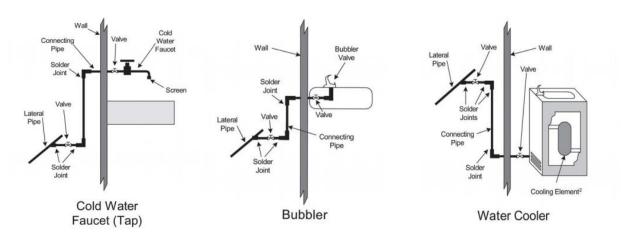
Additionally, galvanized pipes are old iron pipes that were installed in many homes built before the 1960s. Over many years, old corrosion scales build up inside the walls of galvanized pipes. These pipes can cause discolored water and pressure issues. Galvanized pipes can also release lead in water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

- JoBrighton-01: Room 18, Faucet.
- JoBrighton-02: Room 19, Faucet.
- JoBrighton-03: Cafeteria, Water Cooler.
- JoBrighton-04: Cafeteria, Bottle Fill.
- JoBrighton-05: In Hallway, Outside Cafeteria, Right Water Cooler.
- JoBrighton-06: In Hallway, Outside Cafeteria, Bottle Fill on Right Water Cooler.
- JoBrighton-07: Bakery, Faucet with Eyewash Attached.
- JoBrighton-08: Room 25, Faucet.
- JoBrighton-09: In Hallway, Left Water Cooler, Right of Room 34.
- JoBrighton-10: In Hallway, Right Water Cooler, Right of Room 34.

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

Alec Staber

Attachments: Results Table

alex Staker

Analytical Results & Chain of Custody





Wyandotte Public Schools Lead Drinking Water Analysis Project Number: AE180812

JoBrighton Skills Center

Date of Sampling: 10/13/2018

Sampler: Lindsey Eveleth

Sample #	Location	Type ¹	Time Collected	Lead EPA Action Level (ug/L)	Lead Results (ug/L)	Aerator Present Y/N	Notes
JoBrighton-01	Room 18, Faucet	KF	8:31 AM	15	1	Υ	First Draw
JoBrighton-02	Room 19, Faucet	KF	8:34 AM	15	1	Υ	First Draw
JoBrighton-03	Cafeteria, Water Cooler	ВТ	8:38 AM	15	ND³	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not lead lined.
JoBrighton-04	Cafeteria, Bottle Fill	ВТ	8:40 AM	15	ND	N	First Draw
JoBrighton-05	In Hallway, Outside Cafeteria, Right Water Cooler	ВТ	8:44 AM	15	ND	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not lead lined.
JoBrighton-06	In Hallway, Outside Cafeteria, Bottle Fill on Right Water Cooler	ВТ	8:46 AM	15	ND	N	First Draw
JoBrighton-07	Bakery, Faucet with Eyewash Attached	KF	8:48 AM	15	ND	Υ	First Draw
JoBrighton-08	Room 25, Faucet	F	8:50 AM	15	1	Υ	First Draw
JoBrighton-09	In Hallway, Left Water Cooler, Right of Room 34	WC	9:02 AM	15	ND	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not lead lined.
JoBrighton-10	In Hallway, Right Water Cooler, Right of Room 34	WC	9:00 AM	15	1	N	First Draw. Water cooler was reviewed against the EPA Fact Sheet to determine that it is not lead lined.

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-contaminante

³⁾ 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

October 22, 2018

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

Subject: Jo Brighton Skill Center IFD

AE180812-WPS

Dear Ms. Koloski:

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 10/15/2018 for the above mentioned project. NELAP/TNI Accredited Analysis and MDEQ 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 53460 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 MDNRE Certified #9404 NELAC Accredited #176507

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 08:31 12:40

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

BA Project #

53460

BA Sample ID

CI05062

Project Name:

Jo Brighton Skill Center IFD

Project Number: **AE180812-WPS**

Sample ID: JoBrighton-01 Room 18 Faucet

Analyte Name Result Units RLMCL **Method Reference Analysis Time Analysis Date Drinking Water Metal Analysis** 1 Total Lead (Drinking Water) ug/L 1 15 EPA 200.8 rev5.4 17:40 10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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 10/22/2018



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

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 08:34 12:40

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

BA Project #

53460

BA Sample ID

CI05063

Project Name:

Jo Brighton Skill Center IFD

Project Number: **AE180812-WPS**

Sample ID: **JoBrighton-02 Room 19 Faucet**

Analyte Name Result Units RL**Method Reference Analysis Time Analysis Date Drinking Water Metal Analysis** 1 Total Lead (Drinking Water) ug/L 1 15 EPA 200.8 rev5.4 17:43 10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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



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

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 08:38 12:40

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

BA Project #

53460

BA Sample ID

CI05064

Project Name:

Jo Brighton Skill Center IFD

Project Number: AE180812-WPS

Sample ID: JoBrighton-03 Cafeteria WaterCooler

Analyte Name Result Units RL MCL Method Reference Analysis Time Analysis Date

Drinking Water Metal Analysis

Total Lead (Drinking Water) Not detected ug/L 1 15 EPA 200.8 rev5.4 17:46 10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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



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

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 08:40 12:40

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

BA Project #

53460

BA Sample ID

CI05065

Project Name:

Jo Brighton Skill Center IFD

Project Number: **AE180812-WPS**

Sample ID: JoBrighton-04 Cafeteria Bottle Fill

Analyte Name Result Units RL MCL Method Reference Analysis Time Analysis Date

Drinking Water Metal Analysis

Total Lead (Drinking Water) Not detected ug/L 1 15 EPA 200.8 rev5.4 17:55 10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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 10/22/2018



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

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 08:44 12:40

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

BA Project #

53460

BA Sample ID

CI05066

Project Name:

Jo Brighton Skill Center IFD

Project Number: AE180812-WPS Sample ID:

JoBrighton-05 O/S Cafe R WC

Analyte Name Result Units RLMCL **Method Reference Analysis Time Analysis Date Drinking Water Metal Analysis**

Total Lead (Drinking Water)

Not detected ug/L

15

EPA 200.8 rev5.4

17:58

10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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



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

Sample Date/Time: Submit Date/Time:

BA Project #

BA Sample ID

10/13/2018 10/15/2018 08:46 12:40

Arch Environmental Group 37720 Interchange Dr.

Farmington Hills, MI 48335

Report Date:

53460

CI05067

10/22/2018

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Project Name: Jo Brighton Skill Center IFD

Project Number: **AE180812-WPS**

Sample ID: JoBrighton-06 O/S Cafe BottleFill

Analyte Name Result Units RL MCL Method Reference Analysis Time Analysis Date

Drinking Water Metal Analysis

Total Lead (Drinking Water) Not detected ug/L 1 15 EPA 200.8 rev5.4 18:01 10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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 10/22/2018



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

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 08:48 12:40

Arch Environmental Group 37720 Interchange Dr.

Farmington Hills, MI 48335

BA Project #

53460

BA Sample ID

CI05068

Project Name:

Jo Brighton Skill Center IFD

Project Number: **AE180812-WPS**

Sample ID: JoBrighton-07 Bakery Faucet

Analyte Name Result Units RL MCL Method Reference Analysis Time Analysis Date

Drinking Water Metal Analysis

Total Lead (Drinking Water)

Not detected ug/L

. 15

EPA 200.8 rev5.4

18:04

10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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



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

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 08:50 12:40

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

BA Project #

53460

BA Sample ID

CI05069

Project Name:

Jo Brighton Skill Center IFD

Project Number: AE180812-WPS

JoBrighton-08 Room 25 Faucet

Sample ID: **Analyte Name** Result Units RLMCL **Method Reference Analysis Time Analysis Date Drinking Water Metal Analysis** Total Lead (Drinking Water) 1 ug/L 1 15 EPA 200.8 rev5.4 18:07 10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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



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

Sample Date/Time: 10.
Submit Date/Time: 10.

10/13/2018 10/15/2018 10/22/2018 09:02 12:40

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

BA Project #

Report Date:

53460

BA Sample ID

CI05070

Project Name:

Jo Brighton Skill Center IFD

Project Number: **AE180812-WPS**

Sample ID: JoBrighton-09 L Water Cooler Rm34

Analyte Name Result Units RL MCL Method Reference Analysis Time Analysis Date

Drinking Water Metal Analysis

Total Lead (Drinking Water) Not detected ug/L 1 15 EPA 200.8 rev5.4 18:10 10/18/2018

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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



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

Sample Date/Time: Submit Date/Time:

Report Date:

10/13/2018 10/15/2018 10/22/2018 09:00 12:40

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

BA Project #

53460

BA Sample ID

CI05071

Project Name:

Jo Brighton Skill Center IFD

Project Number: AE180812-WPS

JoBrighton-10 R Water Cooler Rm34

Sample ID: **Analyte Name** Result Units RL**Method Reference Analysis Time Analysis Date Drinking Water Metal Analysis** Total Lead (Drinking Water) 1 ug/L 15 EPA 200.8 rev5.4 18:30 10/18/2018 1

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR 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

Brighton Analytical, L.L.C. TM Email: bai-brighton@sbcglobal.net	BA PROJECT #: 53460	Analysis Requested/Method	PAGE OF COMPANY/MAILING ADDRESS:		
2105 Pless Drive Phone: 810-229-7575 Brighton, MI 48114 Fax: 810-229-8650	ABBREVIATIONS FOR MATRIX S = Solid L = Liquid		From Environmental		
PROJECT NAME: JOBNE NON SKILL CON YV JFD PROJECT #: YFE (808) Z	DW = Drinking H ₂ 0 O = Oil P = Wipe A = Air (Tedlar Bag) F = Filter T = Tube		ATTN: WUNCH KUNOSKI PHONE:		
PO#: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)			EXTREMOVEN NO ECOPO		
MNGM ZVEIEIV	er Type & Quantity er Type & Quantity EQ		Samples received within hold time? yes ☑ no ☐ Temperature of samples °C: ♠ N		
REQUESTED TURNAROUND: (circle one) Rush: 1 -3 business days (verify with lab & specify date needed) approved by:	PRESERVED? PRESERVATIVE DEACTERIA TOWN N		pHs verified in login? yes ☑ no □		
REQUESTED TURNAROUND: (circle one) Rush: 1 -3 business days (verify with lab & specify date needed) 1 Day = 2.5X Cost 2 Day = 2X Cost 3 Day = 1.5X Cost Standard: 5 business days Sample Coll. Brighton ID # Sample Description Date Time ONH BAGH	AOF SSO		Headspace/bubbles in VOA's? yes ☐ no ☐ n/a ☐		
Standard: 5 bosiness days Sample Coll. Brighton ID # Sample Description Date Time Time ONH Add Haddh	HDPE H,SO4 HDPE NAOH AMBER P GLASS, NO PF STERILIZED MEOH Preserv		Sample containers and COC match? yes ☐ no ☐		
sólz Jobnanton ol Room 1013831 X	XX				
1) 13 3015 TSN 1017-02 Koom 834			BILLING ADDRESS (IF REQUIRED):		
3) LY TORRIGHTON-03 cooler 838					
4) 65 Parismonton-04 Paretina Bathehill 840					
Johns non-as outside 844					
6) 62 takena Botherine 846 To Borganion of 848			Deinking II O		
0 10 10 10 10 10 10 10 10 10 10 10 10 10			Drinking H ₂ O: Fax to LCHD? yes □ no □		
Jobnanton-09 montett			Chlorinated Water Supply? yes no AMT.:		
10) 2 To Brighton 10 min 3nt 20		 	MCI Esilves D. as D.		
Special Instructions:			MCL Failure: yes □ no □ Client Notified (date/time/initials):		
Please fill out the Chain of Custody completel	and marine to		"Hold" on all analyses		
Trans	Trans.	mpieie injormation wat resuu in a	now on an analyses.		
Trans. # RELINQUISHED BY: RECEIVED BY:	DATE: TIME: #	RELINQUISHED BY:	RECEIVED BY: DATE: TIME:		
Charles KK II	10/15/18 10:40 3				
XXX WALL	115/19 12:26 4				



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

ICP-MS METHOD 200.8/6020

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 10/18/2018	Standard ID: 092618 H2O	Batch: 10/17/2018 B4
Matrix Spike Lab ID: C105060	Matrix: Total	Analyst: LT

Matrix Spike - Precision *				Matrix Spike	e - Accurac	·y**		Miscellaneous***		
Metals	Matrix Spike (ug/kg)	Matrix Spike Dup (ug/kg)	RPD (%)	Spk Conc (ug/kg)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/kg)	Method Blk (ug/kg)	LCS- Method STD (%)	Ind. Std. (%)
Lead	1095	1056	3.6	1000	109.2	105.3	3	<1	103.3	100.1

Comments:	

^{*} Matrix spike precision range +/- 20% RPD

** Matrix spike accuracy range +/- 20% recovery

*** LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

ICP-MS METHOD 200.8/6020

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 1	10/18/2018	Standard ID: 09	92618 H2O	Batch:	10/17/2018	B5
Matrix Spike Lab ID: C	CI05080	Matrix:	Total	Analyst:	LT	

	Matrix Spike - F	Precision *		Matrix Spike	e - Accurac	y**		Miscellanec	Miscellaneous***		
Metals	Matrix Spike (ug/kg)	Matrix Spike Dup (ug/kg)	RPD (%)	Spk Conc (ug/kg)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/kg)	Method Blk (ug/kg)	LCS- Method STD (%)	Ind. Std. (%)	
Lead	984	1055	7.0	1000	98.2	105.3	2	<1	94.2	100.1	

Comments:		

^{*} Matrix spike precision range +/- 20% RPD
** Matrix spike accuracy range +/- 20% recovery
*** LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery