Cleveland Dayton

October 5, 2020

Mr. Tim Gehring Director of Facilities Management Worthington City School District 250 East Wilson Bridge Road Worthington, Ohio 43085

Re: Report of Findings for the Legionella Environmental Sampling

Facility: Bluffsview Elementary School

Address: 7111 Linworth Rd, Columbus, OH 43235

Sample Date: September 22, 2020

L&A Project No: 20-0441

Dear Mr. Gehring,

Lawhon & Associates, Inc. (L&A) performed environmental sampling to document concentrations of *Legionella* in the building's domestic water system. This testing was performed as a proactive measure to ensure *Legionella* concentrations are at acceptable levels following a period of reduced occupancy. L&A's conclusions and recommendations relevant to the sampling performed are presented in this document.

METHODOLOGY

L&A performed environmental sampling for *Legionella* at the site on September 22, 2020. Field activities included a visual assessment of conditions, documentation of water temperatures and the collection of representative water samples for analysis to document *Legionella* concentrations. All activities were performed in accordance with recommendations published by OSHA, AIHA, CDC and current infection control literature. The samples were sent cold, by overnight mail, to U.S. Micro-Solutions, Inc, Greensburg, Pennsylvania for analysis by culture method. This lab is certified to perform *Legionella* analysis through the Centers for Disease Control (CDC) Environmental *Legionella* Isolation Techniques Evaluation (Elite) Certification Program. U.S. Micro-Solutions, Inc. is also accredited by the American Industrial Hygiene Association (AIHA) through the Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program.

FINDINGS

L&A collected ten (10) water samples from the domestic water system on this date. A summary of the analytical results is presented in Table 1. The comprehensive data set is presented in Appendix A. A copy of the laboratory report is included as Appendix B.

1441 King Avenue | Columbus, Ohio 43212 | P: 614.481.8600 | F: 614.481.8610 | www.lawhon-assoc.com

Table 1: Domestic Water Sampling Results

Location	Fixture	Water Source	Analytical Data (CFU/ml)
Boiler Room	Hot Water Tank (L)	Hot	ND
Boiler Room	Municipal Water Main	Cold	ND
Kitchen	Faucet	Hot	ND
Classroom 39	Faucet	Hot	ND
Restroom 43F	Faucet	Hot	ND
Classroom 23A	Faucet	Hot	ND
Classroom 18A	Faucet	Hot	ND
Corridor Near Restroom	Bottle Filling Station	Cold	ND
Classroom 7A	Faucet	Hot	ND
Admin Nurse Station	Faucet	Hot	ND

^{1.} ND. Legionella species were not present above detection limits for the analytical method used.

CONCLUSIONS

L&A conducted representative sampling of the domestic water system servicing the Bluffsview Elementary School. As illustrated in Table 1, analytical results indicate that *Legionella* was not detected at the representative domestic water outlets sampled. No further action is recommended.

CLOSURE

L&A has prepared this report for your use in accordance with generally accepted inspection and testing practices. The information obtained in this report is site and time specific and pertains to this project only. This inspection evaluated the conditions that were readily accessible at the time of the investigation of the subject property and does not warrant against hidden conditions or future alteration of conditions at the site, as well as subsequent changes in regulations. The opinions expressed in this report are based on L&A's experience, relevant literature and available information.

This report was prepared for the exclusive use of the Worthington City School District. No other party may rely on this report unless expressly designated by the Client in writing. The use of the report is subject to the limitations and exceptions set forth in this report, as well as the terms and conditions contained in the original contract documents. L&A will not distribute or publish this report without the Client's consent, except as required by law or court order.

^{2.} OSHA recommends Legionella concentrations be maintained below 10 CFU/ml at domestic water outlets.

Thank you for the opportunity to assist you in this important matter. If you have any questions concerning this report, please contact Karrie Bontrager at (614) 481-8600, extension 136.

Sincerely,

Karrie A. Bontrager, LEED AP Principal and Sr. Microbiologist

APPENDIX A

Comprehensive Data Set

Table A1: Summary of Water Sampling Data (September 22, 2020 Sampling Event)

		Sample Inform	ation			,	Analytical Results
Location	Concentration (CFU/ml)	Species	Sample ID	Sample Type	Temperature (°F)	Concentration (CFU/ml)	Species
Boiler Room	Hot Water Tank	Hot	W-WBVES-1	First Draw			None Detected
Boiler Room	Municipal Water Main	Cold	W-WBVES-2	First Draw			None Detected
Kitchen	Faucet	Hot	W-WBVES-3	Flush	118.6		None Detected
Classroom 39	Faucet	Hot	W-WBVES-4	Flush	124.0		None Detected
Restroom 43F	Faucet	Hot	W-WBVES-5	Flush	102.8		None Detected
Classroom 23A	Faucet	Hot	W-WBVES-6	Flush	123.6		None Detected
Classroom 18A	Faucet	Hot	W-WBVES-7	Flush	118.2		None Detected
Corridor Near Restroom	Bottle Filling Station	Cold	W-WBVES-8	First Draw	71.2		None Detected
Classroom 7A	Faucet	Hot	W-WBVES-9	First Draw	81.0		None Detected
Admin Nurse Station	Faucet	Hot	W-WBVES-10	Flush	107.8		None Detected

^{1.} Flush Samples. Sample was collected after the fixture had run for one minute.

^{2.} First Draw. Sample was collected immediately after the fixture was turned on.

^{3.} None detected. No Legionella species isolated at seven days of culture.

APPENDIX B

Laboratory Analytical Report



U.S. Micro-Solutions, Inc. * 302 Unity Plaza * Latrobe, PA 15650 Phone: (724) 853-4047 Fax: (724) 853-4049 AIHA-LAP, LLC EMLAP #103009 <u>www.usmslab.com</u>



Customer Name: Lawhon & Associates Sample Date: September 22, 2020
Customer Address: 1441 King Avenue Date Received: September 23, 2020
Columbus, OH 43201 Date of Report: September 30, 2020

Customer Phone: (614) 481-8600 Fax: (614) 481-8610

PO Number: Attention: Karrie Bontrag

Attention: Karrie Bontrager & Matt Geiger
Analysis Date: September 23, 2020

Analysis Date: September 23, 2020
Project Name/Number: 20-0441 Worthington CSD - Bluffsville Elementary School Sample Time: 0830

Sample Time: 0830 Analysis Time (hrs): 31.1

Customer sample numbers below are uniquely identified by prefixing Laboratory # 98033-20

	Customer sa	imple numbers below are uniquely identified by prefixing Labo	ratory # 98033-20
	Water/Liquid Sample(s) for	r <i>Legionella</i> Culture - Analytical Method MIC 06 MIC 07 (ISO 11	731:2017)
Sample Number	Media	Sample Description	Results of Microbial Analysis
W-WBVES-1	BCYE/GPCV	Boiler Room - Hot Water Tank - Hot - First Draw	
AS = 0.5 CFU/mL (Volume exar	mined: 100 mL)		Not Detected
W-WBVES-2	BCYE/GPCV	Boiler Room - Municipal Water Main - Cold - First Draw	
AS = 0.5 CFU/mL (Volume exar	mined: 100 mL)		Not Detected
W-WBVES-3	BCYE/GPCV	Kitchen - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume exa	mined: 100 mL)		Not Detected
W-WBVES-4	BCYE/GPCV	Classroom 39 - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume exar	mined: 100 mL)		Not Detected
W-WBVES-5	BCYE/GPCV	Restroom @ 43F - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume exar	mined: 100 mL)		Not Detected
W-WBVES-6	BCYE/GPCV	Classroom 23A - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume exar	mined: 100 mL)		Not Detected

l	Notes:

CFU/mL = colony forming units per milliliter, AS = analytical sensitivity. Results are reported as Positive or Not Detected.

A negative culture for Legionella spp. from a sample does not necessarily rule out its presence.

Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant.

When providing duplicates of this report, the document should be provided in total and not in section in accordance with AIHA-LAP, LLC. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported.

Technical Manager: <u>Fraum Damko</u>

Contact: Sharon Danko, Technical Manager: 724-853-4047



U.S. Micro-Solutions, Inc. * 302 Unity Plaza * Latrobe, PA 15650 Phone: (724) 853-4047 Fax: (724) 853-4049 AIHA-LAP, LLC EMLAP #103009 <u>www.usmslab.com</u>



Customer Name: Lawhon & Associates Sample Date: September 22, 2020 Customer Address: 1441 King Avenue Date Received: **September 23, 2020** Columbus, OH 43201 Date of Report: **September 30, 2020**

(614) 481-8610 Customer Phone: (614) 481-8600 Fax:

PO Number:

Attention: Karrie Bontrager & Matt Geiger

Analysis Date: **September 23, 2020**

Project Name/Number: 20-0441 Worthington CSD - Bluffsville Elementary School Sample Time: 0830 Analysis Time (hrs): 31.1

Customer sample numbers below are uniquely identified by prefixing Laboratory # 98033-20 Water/Liquid Sample(s) for Legionella Culture - Analytical Method MIC 06 MIC 07 (ISO 11731:2017) Sample Number Sample Description Media Results of Microbial Analysis W-WBVES-7 BCYE/GPCV Classroom 18A - Faucet - Hot - Flush Not Detected AS = 0.5 CFU/mL (Volume examined: 100 mL) W-WBVES-8 BCYE/GPCV Corridor near Restroom - Bottle Filling Station - Cold - First Draw AS = 0.5 CFU/mL (Volume examined: 100 mL) Not Detected W-WBVES-9 BCYE/GPCV Classroom 7A - Faucet - Hot - First Draw Not Detected AS = 0.5 CFU/mL (Volume examined: 100 mL) W-WBVES-10 BCYE/GPCV Admin Nurse Station - Faucet - Hot - Flush Not Detected AS = 0.5 CFU/mL (Volume examined: 100 mL)

Notes:	

CFU/mL = colony forming units per milliliter, AS = analytical sensitivity. Results are reported as Positive or Not Detected.

A negative culture for Legionella spp. from a sample does not necessarily rule out its presence. Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant.

When providing duplicates of this report, the document should be provided in total and not in section in accordance with AIHA-LAP, LLC. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer's customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported



Contact: Sharon Danko, Technical Manager: 724-853-4047



U.S. Micro-Solutions, Inc.
302 Unity Plaza
Latrobe, PA 15650
P: 724-853-4047 F: 724-853-4049
supplies@usmslab.com





LEGIONELLA / WATER TEST REQUEST - CHAIN OF CUSTODY

CUSTOMER NAME: Lawhon & Associates	-awhon	& Asso	ociates		PHONE #: 614-481-8600	-8600			FAX #: 6	14-48	FAX #: 614-481-8610		
ADDRESS: 1441 King Avenue	ing Ave	anne	I		CITY: Columbus			STATE	STATE: Ohio	ZIF	ZIP: 43201		
ATTENTION TO: Karrie Bontrager & Matt Geige	rrie Bon	trager &	& Matt Geiger	/		E-MAII	-: kbor	ıtrage	r@lawh	on-as	E-MAIL: kbontrager@lawhon-assoc.com &	n & mge	mgeiger@
SAMPLE OBTAINED BY: Matt Geiger	в ^у : Matt	Geige	ır	RESULTS:	FAX EMAIL	L SAMPLE TYPE	<u> </u>	POTABLE WATER	щ ~	TEST TYPE	rype	LAB US	LAB USE ONLY
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W-WBVES-2	9/22/2020	9/22/2020 8:30am-1:00pm	Boiler Room - Municipal Water Main - Cold - First Draw	ipal Water Main	- Cold - First Dra	×		<u> </u>					
W-WBVES-3	9/22/2020	9/22/2020 8:30am-1:00pm		Kitchen - Faucet - Hot - Flush	ot - Flush								
W-WBVES-4 9/22/2020 8:30am-1:00pm	9/22/2020	8:30am-1:00pr	Classroom 39 - Faucet - Hot - Flush	9 - Faucet	- Hot - Flush	<u>\</u>							
W-WBVES-5	9/22/2020	9/22/2020 8:30am-1:00pm	Restroom @ 43F - Faucet - Hot - Flush	3F - Fauce	t - Hot - Flus	h 🗸							
W-WBVES-6 9/22/2020 8:30am-1:00pm	9/22/2020	8:30am-1:00pr	Classroom 23A - Faucet - Hot - Flush	A - Faucet	- Hot - Flus	h V							
W-WBVES-7		9/22/2020 8:30am-1:00pm	Classro	3A- Faucet	om 18A- Faucet - Hot - Flush	<u>\</u>							
W-WBVES-8		9/22/2020 B:30am-1:00pm	Corridor near	- Bottle Filling Star	Restroom - Bottle Filling Station - Cold - First Draw	wi							
W-WBVES-9	9/22/2020	8:30am-1:00pi	W-WBVES-9 9/22/2020 830880-10000 Classroom 7A - Faucet - Hot - First Draw	- Faucet - H	ot - First Dra	> M							
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U.S. Micro-Solutions, Inc. 302 Unity Plaza Latrobe, PA 15650 P: 724-853-4047:724-853-4049 supplies@usmslab.com





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s al as	awhon 8	век: 20-0441 М	SAMPLE DATE / TIME

CUSTOMER NAME:	CUSTOMER NAME: Lawhon & Associ	k Associates	SAMPLE TYPE	POTABLE WATER	TEST TYPE	ЭE	LAB USE ONLY	<u></u>
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