



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: Brookside Elementary School**  
**Address: 6700 McVey Blvd, 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.

**Table 1: Domestic Water Sampling Results**

Location	Fixture	Water Source	Analytical Data (CFU/ml)
Mechanical Room	Hot Water Tank	Hot	ND
Mechanical Room	Municipal Water Supply	Cold	ND
Kitchen	Faucet	Hot	ND
Classroom 26	Faucet	Hot	ND
Boy's Restroom	Faucet	Hot	ND
Classroom 11	Faucet	Cold	ND
Classroom 7	Faucet	Cold	ND
Boy's Restroom	Faucet	Hot	ND
Corridor at RM 4	Bottle Filling Station	Cold	ND
Classroom 1	Faucet	Cold	ND
<div><div>1. ND. <i>Legionella</i> species were not present above detection limits for the analytical method used.</div><div>2. OSHA recommends <i>Legionella</i> concentrations be maintained below 10 CFU/ml at domestic water outlets.</div></div>			

## CONCLUSIONS

L&A conducted representative sampling of the domestic water system servicing the Brookside 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.

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,

A handwritten signature in dark ink, appearing to read 'Karrie A. Bontrager', written in a cursive style.

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 Information						Analytical Results	
Location	Concentration (CFU/ml)	Species	Sample ID	Sample Type	Temperature (°F)	Concentration (CFU/ml)	Species
Mechanical Room	Hot Water Tank	Hot	W-BES-1	First Draw	--	--	None Detected
Mechanical Room	Municipal Water Supply	Cold	W-BES-2	First Draw	--	--	None Detected
Kitchen	Faucet	Hot	W-BES-3	Flush	128.0	--	None Detected
Classroom 26	Faucet	Hot	W-BES-4	Flush	121.0	--	None Detected
Men's Restroom	Faucet	Hot	W-BES-5	Flush	114.2	--	None Detected
Classroom 11	Faucet	Cold	W-BES-6	First Draw	69.2	--	None Detected
Classroom 7	Faucet	Cold	W-BES-7	Flush	66.0	--	None Detected
Boy's Restroom	Faucet	Hot	W-BES-8	Flush	117.2	--	None Detected
Corridor at RM 4	Bottle Filling Station	Cold	W-BES-9	Flush	64.6	--	None Detected
Classroom 1	Faucet	Cold	W-BES-10	Flush	70.0	--	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  
[www.usmslab.com](http://www.usmslab.com)



Customer Name: Lawhon & Associates  
Customer Address: 1441 King Avenue  
Columbus, OH 43201  
Customer Phone: (614) 481-8600  
PO Number:  
Project Name/Number: 20-0441 Worthington CSD - Brookside Elementary School  
Sample Date: September 22, 2020  
Date Received: September 23, 2020  
Date of Report: September 30, 2020  
Fax: (614) 481-8610  
Attention: Karrie Bontrager & Matt Geiger  
Analysis Date: September 23, 2020  
Sample Time: 0830  
Analysis Time (hrs): 31.1

Customer sample numbers below are uniquely identified by prefixing Laboratory # 98036-20

Water/Liquid Sample(s) for *Legionella* Culture - Analytical Method MIC 06 MIC 07 (ISO 11731:2017)

Sample Number	Media	Sample Description	Results of Microbial Analysis
W-BES-1	BCYE/GPCV	Mechanical Room - Hot Water Tank - Hot - First Draw	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-2	BCYE/GPCV	Mechanical Room - Municipal Water Supply - Cold - First Draw	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-3	BCYE/GPCV	Kitchen - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-4	BCYE/GPCV	Classroom 26 - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-5	BCYE/GPCV	Boy's Restroom - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-6	BCYE/GPCV	Classroom 11 - Faucet - Cold - First Draw	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected

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.

Technical Manager:

*Sharon Danko*

Sharon Danko, AS, MLT (ASCP)

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



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 Bontrager & Matt Geiger
		Analysis Date:	September 23, 2020
Project Name/Number:	20-0441 Worthington CSD - Brookside Elementary School	Sample Time:	0830
		Analysis Time (hrs):	31.1

Customer sample numbers below are uniquely identified by prefixing Laboratory # 98036-20

Water/Liquid Sample(s) for *Legionella* Culture - Analytical Method MIC 06 MIC 07 (ISO 11731:2017)

Sample Number	Media	Sample Description	Results of Microbial Analysis
W-BES-7	BCYE/GPCV	Classroom 7 - Faucet - Cold - Flush	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-8	BCYE/GPCV	Boy's Restroom - Faucet - Hot - Flush	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-9	BCYE/GPCV	Corridor at RM 4 - Bottle Filling Station - Cold - Flush	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected
W-BES-10	BCYE/GPCV	Classroom 1 - Faucet - Cold - Flush	
AS = 0.5 CFU/mL (Volume examined: 100 mL)			Not Detected

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.

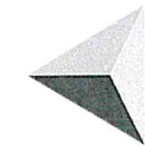
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Technical Manager: Sharon Danko  
Sharon Danko, AS, MLT (ASCP)

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

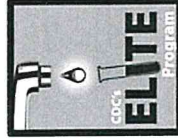
\*End of Report\*





# U.S. Micro-Solutions, Inc.

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



NY ELAP #12055  
The New York Environmental  
Laboratory Approval Program

## LEGIONELLA / WATER TEST REQUEST - CHAIN OF CUSTODY

CUSTOMER NAME: Lawhon & Associates PHONE # 614-481-8600 FAX # 614-481-8610

ADDRESS: 1441 King Avenue CITY: Columbus STATE: Ohio ZIP: 43201

ATTENTION TO: Karrie Bontrager & Matt Geiger E-MAIL: kbbontrager@lawhon-assoc.com & mgeiger@

SAMPLE OBTAINED BY: Matt Geiger RESULTS: ☒ FAX ☒ EMAIL ☒

PROJECT NAME/NUMBER: 20-0441 Worthington CSD - Brookside Elementary School PO#

# SAMPLES: 10 Samples collected in New York state? ☐ Yes ☒ No

SAMPLE NUMBER	SAMPLE DATE / TIME	SAMPLE LOCATION AND DESCRIPTION	SAMPLE TYPE		POTABLE WATER		TEST TYPE		LAB USE ONLY	
			WATER	SWAB	YES	NO	LEGIONELLA	Heterotrophic Plate Count	Chlorine (ppm)	Temperature (°C)
W-BES-1	9/22/2020 8:30am-1:00pm	Mechanical Room - Hot Water Tank - Hot - First Draw	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-2	9/22/2020 8:30am-1:00pm	Mechanical Room - Municipal Water Supply - Cold - First Draw	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-3	9/22/2020 8:30am-1:00pm	Kitchen - Faucet - Hot - Flush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-4	9/22/2020 8:30am-1:00pm	Classroom 26 - Faucet - Hot - Flush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-5	9/22/2020 8:30am-1:00pm	Boy's Restroom - Faucet - Hot - Flush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-6	9/22/2020 8:30am-1:00pm	Classroom 11 - Faucet - Cold - First Draw	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-7	9/22/2020 8:30am-1:00pm	Classroom 7 - Faucet - Cold - Flush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-8	9/22/2020 8:30am-1:00pm	Boy's Restroom - Faucet - Hot - Flush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
W-BES-9	9/22/2020 8:30am-1:00pm	Corridor at RM 4 - Bottle Filling Station - Cold - Flush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

RELINQUISHED BY - CUSTOMER (MUST SIGN)

DATE AND TIME

Analyst Initials

RECEIVED BY - LAB USE ONLY

DATE AND TIME

LABORATORY NUMBER

9/22/2020 14:07

09/23/20 10:15

98036-20



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