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<b>Customer Name:</b>	U.S. Micro-Solutions, Inc.	<b>Sample Date:</b>	August 16, 2018
<b>Customer Address:</b>	302 Unity Plaza Latrobe, PA 15650	<b>Date Received:</b>	August 17, 2018
<b>Customer Phone:</b>	(724) 853-4047	<b>Date of Report:</b>	August 24, 2018
<b>PO Number:</b>		<b>Fax:</b>	(724) 853-4049
<b>Project Name/Number:</b>	Legionella Sample Report (Non-NY)	<b>Attention:</b>	
		<b>Analysis Date:</b>	August 17, 2018
		<b>Sample Time:</b>	1000
		<b>Analysis Time (hrs):</b>	29.3

Customer sample numbers below are uniquely identified by prefixing Laboratory # 12345-19

**Water/Liquid Sample(s) for Legionella Culture - Analytical Method USMS-B007 (ISO 11731:2017)**

Sample Number	Media	Sample Description	Results of Microbial Analysis
1	BCYE/GPCV	Cooling Tower 1	
AS = 10 CFU/mL (Volume examined: 0.3 mL)			Not Detected
2	BCYE/GPCV	Cooling Tower 2	
AS = 10 CFU/mL (Volume examined: 0.3 mL)			<b>Positive - 10 CFU/mL Legionella pneumophila Serogroup 2-14</b>
3	BCYE/GPCV	Faucet	
AS = <1 CFU/mL (Volume examined: 100 mL)			<b>Positive - 10 CFU/mL Legionella pneumophila Serogroup 1</b>
4	BCYE/GPCV	Shower	
AS = <1 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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*Herbert Layman*  
 Technical Manager: \_\_\_\_\_  
 Herbert Layman, BS, SM, CIEC

Contact: Sharon Fanchalsky, Laboratory Supervisor: 724-853-4047

## Interpretation of Legionella Culture Results

(not applicable for New York samples)

There are no federal action levels for *Legionella*, however some states, agencies, and organizations have published interpretive guidelines for *Legionella* quantitative culture results. The full text of the guidelines below can be found by accessing the provided links. It is ultimately the responsibility of a qualified professional to select actions that are appropriate for the situation being evaluated.

### OSHA Guidelines

OSHA Technical Manual, Section III, Chap. 7, Legionnaire's Disease (which was adapted from George K. Morris, PhD, and Brian G. Shelton, Pathcon Technical Bulletin 1.3, Legionella in Environmental Samples: Hazard Analysis and Suggested Remedial Actions, June 1991) <https://www.osha.gov/dts/osta/otm/legionnaires/sampling.html>, accessed 8-18-17

Legionella colony forming units per milliliter (CFU/mL)			
Action	Cooling Tower/Evaporative Condenser	Potable Water	Humidifiers & Misters
1	≥100	≥10	≥1
2	≥1000	≥100	≥10

**Action 1:** Cleaning followed by biocide treatment of the system, if appropriate.

**Action 2:** Cleaning and/or biocide treatment. Take immediate steps to prevent employee exposure.

### AWT Guidelines

Legionella 2003: An Update and Statement by the Association of Water Technologies (AWT), <https://www.awt.org/pub/035C2942-03BE-3BFF-08C3-4C686FB7395C>, accessed 8-18-17

Cooling Tower Legionella Count, colony forming units per milliliter (CFU/mL)			
>0-10	>10-100	>100-1000	>1000
A	B	C	D

- A. Increase biocide addition/s
- B. Increase biocides; review program, retest till <10
- C. Disinfect/clean within 30 days; review program
- D. Disinfect/clean within 7 days; review program