

Aerobiology Sample Report  
43760 Trade Center Place  
Sterling, Virginia 20166  
Attn: John Doe  
Project: **Legionella ISO 11731:2017 Testing**  
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 06/10/2018  
Date Received: 06/11/2018  
Date Analyzed: 06/21/2018  
Date Reported: 06/22/2018  
Project ID: 18021438  
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Client Sample #: Sink 1  
Sample Location: Potable Water -1L  
Test: 1015.1, WATER, Legionella Analysis - ISO 11731:2017 - POTABLE 1 LITER  
Results: **<1 CFU/mL**

Lab Sample #: 18021438-001

Liquid Volume: **1000 (mL)**

Organism(s) Isolated:	Raw Count	CFU/mL	% Total	MRL
Legionella pneumophila Serogroup 1	2	<1	67	0.1 CFU/mL
Legionella pneumophila Serogroup 2-15	1	<1	33	0.1 CFU/mL
	3	<1	~100%	

Client Sample #: Basin Water  
Sample Location: Non-Potable Water 1L  
Test: 1015.2, WATER, Legionella Analysis - ISO 11731:2017 - NON-POTABLE 1 LITER  
Results: **No Legionella isolated**

Lab Sample #: 18021438-002

Liquid Volume: **1000 (mL)**

Organism(s) Isolated:	Raw Count	CFU/mL	% Total	MRL
Legionella species (not pneumophila)	3	1	100	0.2 CFU/mL
	3	1	~100%	

Client Sample #: Negative Samples  
Sample Location: Legionella Negative Samples  
Test: 1015.6.1, WATER, Legionella Analysis - ISO 11731:2017 - POTABLE - NEGATIVE  
Results: **No Legionella isolated**

Lab Sample #: 18021438-005

Liquid Volume: **1000 (mL)**

Client Sample #: Negative Samples  
Sample Location: Legionella Negative Samples  
Test: 1015.5.1, WATER, Legionella Analysis - ISO 11731:2017 - NON-POTABLE - NEGATIVE  
Results: **No Legionella isolated**

Lab Sample #: 18021438-005

Liquid Volume: **1000 (mL)**

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## Legionella Facts

1. TESTING METHODOLOGY: Culture remains the recommended method for Legionella monitoring. Standardized culture procedures include ISO 11731: *Detection and Enumeration of Legionella* and CDC: *Procedures for the Recovery of Legionella from the Environment*.

Ref: BSR / ASHRE Standard 188P

2. *Legionella* species recovered from culture method include *Legionella pneumophila* and *Legionella* species not pneumophila. All *Legionella pneumophila* isolates are run against Serogroup 1 reagent and Serogroup 2-15 reagent. *Legionella* species not pneumophila isolates are screened in *Legionella* species reagent. (This species reagent includes *micdadei*, *bozemanii*, *dumoffi*, *longbeachae*, *jordanis*, *gormanii*, *anisa* and *feeleyi*)

3. If the final quantitative result is corrected for contamination based on the blank, the blank correction is stated in the sample comments section of the report.

### Action Criteria for Legionella

Legionella / ml	Cooling Towers and Evaporative Condensers			Suggested Remedial Action: Potable Water		Humidifier/Fogger
	1	2	3	4	5	
Detectable, but <1	1	2	3	4	5	3
1 - 9	2	3	4	5	5	4
10 - 99	3	4	5	5	5	5
100 - 999	4	5	5	5	5	5
≥ 1,000	5	5	5	5	5	5

#### Remedial Actions:

##### Level 1:

Review routine maintenance program recommended by the manufacturer of the equipment to ensure that the recommended program is being followed. The presence of barely detectable number of Legionella represents a low level of concern.

##### Level 2:

Implement action 1. Conduct follow-up analysis after a few weeks for evidence of further Legionella amplification. This level of *Legionella* represents little concern, but the number of organisms detected indicates that the system is a potential amplifier of *Legionella*.

##### Level 3:

Implement action 2. Conduct review of premises for the direct and indirect bioaerosols contact with occupants and health risk status of people who may come in contact with bioaerosols. Depending on the results of the review of the premises, action related to cleaning and/or biocide treatment of the equipment may be indicated. This level of *Legionella* represents a low but increased level of concern.

##### Level 4:

Implement action 3. Cleaning and/or biocide treatment of the equipment is indicated. This level of *Legionella* represents a moderately high level of concern, since it is approaching levels that may cause outbreaks. It is uncommon for samples to contain number of *Legionella* that fall in this category.

##### Level 5:

Immediate cleaning and/or biocide treatment of the equipment is definitely indicated. Conduct post treatment analysis to ensure effectiveness of the corrective action. The level of *Legionella* represents a high level of concern, since it poses the potential for causing an outbreak. It is very uncommon for samples to contain number of *Legionella* that fall in this category.

Ref: *Legionella*: Current Status and Emerging Perspectives: Barbaree, Breiman, Dufour: ASM



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