

Garden State Environmental
555 Broad Street Ste K
Glen Rock, New Jersey 07452
Attn: Lab Reports
Project: **WEST ORANGE #7129 ST CLOUD ELEMENTARY #1**
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 09/27/2018
Date Received: 09/28/2018
Date Analyzed: 10/05/2018
Date Reported: 10/05/2018
Project ID: 18037428
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Client Sample #: SCES-B-HWH-01P
Sample Location: BOILER RM (HOT WATER HEATER)
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-001

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/mL**

Client Sample #: SCES-1-WM-01P
Sample Location: ROOM 210A (WATER MAIN)
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-002

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/mL**

Client Sample #: SCES-1-S-01P
Sample Location: ROOM 202 (SINK 4)
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-003

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/mL**

Client Sample #: SCES-1-S-02P
Sample Location: ROOM 217 KITCHEN (SINK 1)
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-004

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/mL**

Client Sample #: SCES-1-S-03P
Sample Location: RM 213 (SINK)
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-005

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/mL**

Client Sample #: SCES-2-S-04P
Sample Location: ROOM 314 (SINK)
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-006

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/mL**

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Client Sample #: SCES-2-05P
Sample Location: BOYS RR (SINK)
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-007

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/mL**

Client Sample #: SCES-2-06P
Sample Location: ROOM SINK
Test: 1015.7, WATER, Legionella Analysis, CDC Method: SOP 2.35/SOP 2.22
- 1 LITER
Results: **No Legionella isolated**

Lab Sample #: 18037428-008

Liquid Volume: **1000 (mL)**
MRL: **10 CFU/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 *feelei*)

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

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