

Prepared for: Mr. Larry Roth Roth Construction, Inc. Olds, Iowa

Re: Washington County School



P.O. Box 3407 Bluffton, SC. 29910 T: 843-705-3956 F: 843-705-3954 E: <u>amartin@giccllc.com</u> <u>www.giccllc.com</u>

Octpober 27, 2013

Enclosed is a copy of the actual lab report from the samples collected at the Washington County School located on 10-15-2013.

The air samples were taken using a Gast Model #ZGHV02 sampling pump and BioAerosol Sampling Cassettes manufactured by Zefon International unless otherwise noted. The pump flow rate was set at 15 LPM and calibrated for accuracy utilizing a flow meter manufactured by Dwyer Manufacturing Co. Inc. A five (5) minute air sample was collected allowing 75 Liters to be impacted on the laboratory collection media in the sampling cassette. An "outdoor control sample" was taken to establish ambient levels of any spores present.

Any direct contact samples were collected by means of a sterile swab unless otherwise noted.

The results are as follows:

Outdoor sample:

This sample represents the airborne spore levels at the time of sampling. It is consistent with weather conditions and local flora at the time of sampling. These outdoor numbers vary seasonaly and with weather conditions but are positive for the day, date and time collected.

Ms. Roth room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1.	Alternaria	3 x outdoor baseline
2.	Curvularia	Outdoor sample indicated Zero (0)
3.	Epicoccum	Outdoor sample indicated Zero (0)
4.	Nigrospora	Outdoor sample indicated Zero (0)
5.	Other browns	Outdoor sample indicated Zero (0)
6.	Pithomyces	13 x outdoor baseline
7.	Smuts, Periconia, Myxomycetes	1+ outdoor baseline

Ms. Lemon room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1.	Alternaria	10+ x outdoor baseline
2.	Cladosporium	6+ times outdoor baseline*
3.	Curvularia	Outdoor sample indicated Zero (0)
4.	Epicoccum	Outdoor sample indicated Zero (0)
5.	Pithomyces	4+ x outdoor baseline

*It should be noted that although this is only 6 x the outdoor level the actual number is very high. *Cladosporium* is an allergen and opportunistic pathogen.

Additional information can be found in the "Fungal Guide" attached to this report as reference material.

Mrs. Slagel room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1.	Alternaria	1.6+ x outdoor baseline
2.	Curvularia	Outdoor sample indicated Zero (0)
3.	Epicoccum	Outdoor sample indicated Zero (0)
4.	Other browns	Outdoor sample indicated Zero (0)
5.	Pithomyces	11+ x outdoor baseline
6.	Rusts	<i>l</i> + <i>x</i> outdoor baseline

Mrs. Grimm room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1.	Alternaria	3 x outdoor baseline
2.	Bipolaris/Drechslera group	Outdoor sample indicated Zero (0)
3.	Curvularia	Outdoor sample indicated Zero (0)
4.	Epicoccum	Outdoor sample indicated Zero (0)
5.	Other browns	Outdoor sample indicated Zero (0)
6.	Pithomyces	10+ outdoor baseline
7.	Rusts	1.5+ outdoor baseline
8.	Smuts, periconia, myxomycetes	1.5+ outdoor baseline

Mrs. Boyer room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1.	Alternaria	1.3+ outdoor baseline
2.	Epicoccum	Outdoor sample indicated Zero (0)
3.	Other browns	<i>Outdoor sample indicated Zero (0)</i>
4.	Pithomyces	7+ x outdoor baseline

Mrs. Rinner room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1.	Curvularia	<i>Outdoor sample indicated Zero (0)</i>
2.	Other browns	<i>Outdoor sample indicated Zero (0)</i>
3.	Pithomyces	2.4+ outdoor baseline

Basement:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1.	Ascospores	2.9+ outdoor baseline
2.	Cercospora	<i>Outdoor sample indicated Zero (0)</i>
3.	Cladosporium	<i>l</i> + outdoor baseline

- 4. Curvularia
- 5. Epicoccum
- 6. Penicillium/Aspergillus types

Outdoor sample indicated Zero (0) Outdoor sample indicated Zero (0) 1+ outdoor baseline

Computer lab:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

- 1. Epicoccum
- 2. Nigrospora
- 3. Oidium
- 4. Pithomyces

Outdoor sample indicated Zero (0) Outdoor sample indicated Zero (0) Outdoor sample indicated Zero (0) 12+ x outdoor baseline

Art room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1. Alternaria2.75 x outdoor baseline2. EpicoccumOutdoor sample indicated Zero (0)3. NigrosporaOutdoor sample indicated Zero (0)4. OidiumOutdoor sample indicated Zero (0)5. Pithomyces13+ x outdoor baseline

Music room:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1. Alternaria1.3+ x outdoor baseline2. CurvulariaOutdoor sample indicated Zero (0)3. EpicoccumOutdoor sample indicated Zero (0)4. Pithomyces36.5+ x outdoor baseline

Office:

The sample collected indicated a wide variety of airborne fungi. When compared to the outdoor sample the following fungi were elevated:

1. Alternaria	2 x outdoor baseline
2. Epicoccum	Outdoor sample indicated Zero (0)
3. Other browns	Outdoor sample indicated Zero (0

Notes:

- 1. The fungi listed as higher than the baseline outdoor sample or not found in the baseline sample are not indicative of other fungi which were, in fact, discovered in the outdoor sample. In some cases fungi were discovered but in numbers eaqual to or lower than that indicate din the outdoor baseline sample.
- 2. All fungi identified and quantified have more information about allergic reactions, pathogenicity and toxicity that can be found in the reference material listed as "Fungal Guide."

3. Numerous samples for bacterial identification were collected and those results will be available from the laboratory to us on Monday 29 October. An additional section to complete this report will be done at that time.

Supplementary Statistical Spore Trap Report:

This supplemental report is done to do a statistical analysis through a complicated set of parameters to determine whether or not the sample results are more likely to come from indoors or from outdoors. Final ratings are listed from a low of 100 to a high of 300. The basis of this report is to identify if the problem is ubiquitous and due to normal ventilation and infiltration or if the problem is caused by a reservoir of growth somewhere within the space tested. Any rating of "medium to high" is indicative of a reservoir of active growth impacting the conditioned, tested space.

1.	Mrs. Roth	. High.	Score 262
2.	Ms. Lemon	High.	Score 300
3.	Mrs. Slagel	Medium.	Score 235
4.	Mrs. Grimm	. Medium.	Score 242
5.	Ms. Boyer	. Medium.	Score 210
6.	Mrs. Rinner	Low.	Score 144
7.	Basement	. Low.	Score 140
8.	Computer lab	. Medium	Score 245
9.	Art room	. High	Score 256
10.	Music room	. High	Score 298
11.	Office	Medium	Score 160

Conditions and Limitations.

Air sampling results are limited in that they represent airborne concentrations at the time of sampling only. Changes in operating procedures, temperature, humidity, ventilation rates, occupancy, equipment, products used in maintenance, and other conditions can cause variations in anticipated airborne concentrations.

Analysis of samples at the time they were taken is based on concentration ratios between an outdoor control sample, used as a benchmark, and the proportionality of concentration counts obtained within the structure. Indoor concentrations should mirror those found outside but with indoor counts in the 20% to 80% range of those found outdoors.

GICC LLC has performed the tasks set forth in the proposed agreement in a thorough and professional manner consistent with industry standards. GICC LLC cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site of the sampling. GICC LLC does not warrant that the assessment requested will satisfy the dictates of, or provide legal defense in connection with environmental law(s), regulations or health issues.

Results reported by GICC LLC are based on interpretation of laboratory analysis of samples submitted and are solely for the benefit of the client. The results and opinions set forth by GICC LLC in its report(s) will be valid as of the date of the report(s). GICC LLC

assumes no obligation to advise you of any changes that may later be brought to our attention without benefit of a specified, documented consulting contractual agreement.

Mold and Health.

Much uncertainty exists regarding the health effects of various molds, mildew and fungi. Since people's sensitivity to these issues varies, as do their apparent symptoms, different people may be affected in different degrees of reaction to what is present. There is no clear cut, definitive set of symptoms associated with individual molds and the effects will vary based on the age, health, etc. of the individual(s) affected.

Arthur V. Martin, President



Washington County School Building

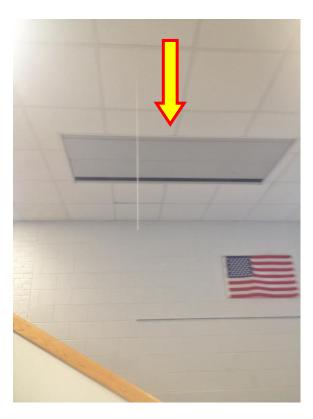


This is a TRANE Chilled Water unit installed at the school recently. The system is coupled to a series of both console units located under the windows on exterior classroom walls and ceiling mounted units where the cabinet face is flush with the dropped ceiling tile height.

The rooms were kept cool but the humidity level and grains of moisture per pound of air were high.

This is typically indicative of an oversized system. An oversized system cannot control moisture in the air and in some instances could be a cause of fungi growth.

A thorough heat loss/heat gain engineering calculation should have been part of the installation. A properly sized and configured unit based on a properly done engineering analysis would rule the HVAC unit out as a causal agent of the fungal proliferation.



This is typical of the ceiling mounted HVAC units supplied by the outdoor Chilled Water unit.



The picture on the left shows a typical ceiling return air grill. The picture on the right shows that it is not, in any way, directly connected to the units mounted in the ceiling being supplied by the chilled water unit located outside. It is open to the entire space above the dropped ceiling.

With these units designed to draw return air for recirculation through the system and back to the conditioned space integral to the unit this arrangement is not a good choice. It will have the effect of equalizing pressurization between the conditioned space (classroom) and the above the ceiling plenum but, and this is the big issue, the HVAC unit will draw return air from above the ceiling space rather than from in the room in larger quantity. This air is in a location (above the ceiling) that is not conditioned or sanitized and any pathogens located and/or growing there will be recirculated through the HVAC back into the classroom where children are located.

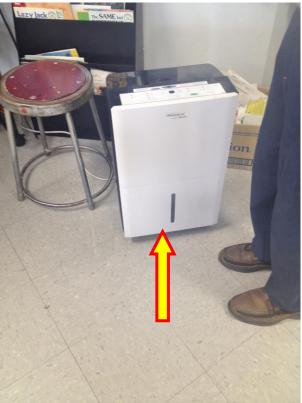
This type of installation is done for several reasons but the main one is to reduce installation cost. It is not acceptable in a health care setting and local codes may in fact prohibit the installation in a school setting.

In a location where carpeting is present, such as these classrooms, there is the chance of recirculating bacterial contamination from the carpets as well as fungal spores.

See the section of this report on bacterial sampling for carpet sample results.



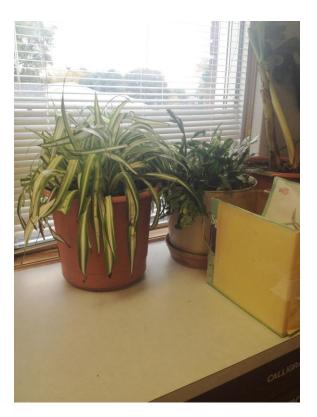
Here we see a typical classroom setting. Note the masking tape on the carpeting indicating where children sit and come in contact with the carpeting.



This is a residential type portable dehumidifier being used in an attempt to keep the relative humidity level in a classroom at an acceptable amount where fungi do not grow.

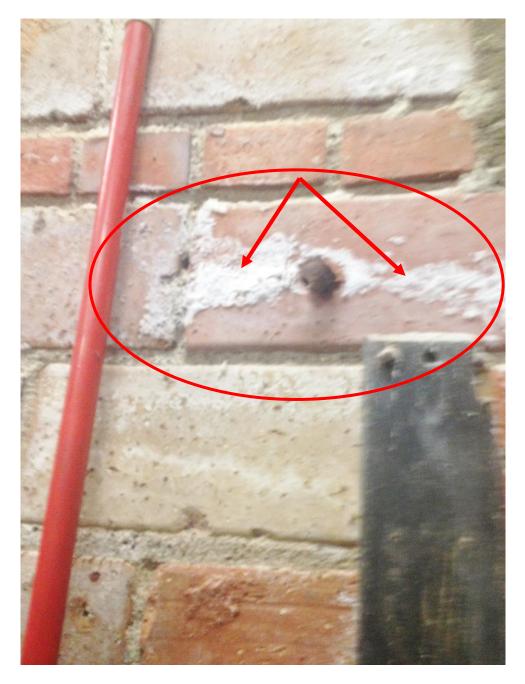


This is the Art Room.



These plants were located in the Art Room. There appeared to be some fungi growing on them and a sample was collected.

Results are in the Bacterial Sampling section of the report.



The basement is not conditioned. It is subject to flooding and standing water at times. The white material on the brick wall is not fungal growth but rather calcium that comes out of the concrete brick and mortar. It is, however, a prime indicator of high moisture levels.



January 31, 2014

L.J. Roth Construction

Re: Waco Elementary School. Washington County, Iowa

Subject: Clearance report:

Dear Mr. Roth

The attached lab results are from our clearance testing of the school after you remediated it as per our protocol using materials and methods recommended.

In short, this is an absolutely amazing result. We took care to sample some rooms and locations not included in the original testing to verify compliance with the cleaning of the ones we did test prior to your remediation.

In every case, in every room and location these results are about as good as anything we have seen in 40+ years of experience. Your crew did an outstanding job following prescribed protocols and the results speak clearly of that.

The school building is extremely free of fungi and /or bacteria and the environment is excellent for the children and staff as well as any visitors. As you know one of the issues here was the carpeting and HVAC. I would suggest you follow the following recommendations to maintain a healthy indoor environment year round.

- 1. Fog carpets on a regular schedule as outlined herein.
- 2. Fog HVAC on a regular schedule as outlined herein.

Scheduling:

- 1. One week prior to the start of the school year.
- 2. Christmas break prior to the children's return to class.
- 3. Spring break prior to the children's return to class.

Most respectfully

Arthur V. Martín, President

Arthur V. Martin, President

Laboratory Report Analysis

Prepared for: Mr. Larry Roth Roth Construction, Inc. Olds, Iowa

Re: Clearance Test Waco Elementary. Washington County



P.O. Box 3407 Bluffton, SC. 29910 T: 843-705-3956 F: 843-705-3954 E: <u>amartin@giccllc.com</u> <u>www.giccllc.com</u>

January 31, 2014

Enclosed is a copy of the actual lab report from the samples collected at the Waco Elementary, Washington County School on 1-25-2014.

The air samples were taken using a Gast Model #ZGHV02 sampling pump and BioAerosol Sampling Cassettes manufactured by Zefon International unless otherwise noted. The pump flow rate was set at 15 LPM and calibrated for accuracy utilizing a flow meter manufactured by Dwyer Manufacturing Co. Inc. A five (5) minute air sample was collected allowing 75 Liters to be impacted on the laboratory collection media in the sampling cassette. An "outdoor control sample" was taken to establish ambient levels of any spores present.

Any direct contact samples were collected by means of a sterile swab unless otherwise noted.

The results are as follows:

Outdoor sample:

This sample represents the airborne spore levels at the time of sampling. It is consistent with weather conditions and local flora at the time of sampling. These outdoor numbers vary seasonaly and with weather conditions but are positive for the day, date and time collected.

The low number is indicative of the cold weather.

Ms. Lemon room:

The sample collected indicated a count equal to the outdoor count at the time the samples were collected. This would indicate normal infiltration.

Prior levels included the following:

1.	Alternaria	10+ x outdoor baseline
2.	Cladosporium	6+ times outdoor baseline*
3.	Curvularia	Outdoor sample indicated Zero (0)
	D ·	

- 4. Epicoccum
- 5. *Pithomyces*
- *Outdoor sample indicated Zero* (0) *4+ x outdoor baseline*

Mrs. Slagel room:

The sample collected indicated a trace of *Bipolaris/Drechlera* fungi. **Prior levels included the following:**

1. Alternaria	1.6+ x outdoor baseline
1. Curvularia	Outdoor sample indicated Zero (0)
2. Epicoccum	Outdoor sample indicated Zero (0)
3. Other browns	Outdoor sample indicated Zero (0)
4. Pithomyces	11+ x outdoor baseline
5. Rusts	l + x outdoor baseline

Mrs. Grimm room:

The sample collected indicated am absence of airborne fungi:

Prior levels included the following:

- 1. Alternaria
- 2. Bipolaris/Drechslera group
- 3. Curvularia
- 4. Epicoccum
- 5. Other browns
- 6. Pithomyces
- 7. Rusts
- 8. Smuts, periconia, myxomycetes

3 x outdoor baseline Outdoor sample indicated Zero (0) 10+ outdoor baseline 1.5+ outdoor baseline 1.5+ outdoor baseline

Mrs. Boyer room:

The sample collected indicated a level of *Cladosporium* equal to the outdoor level. This would indicate normal infiltration.

Prior levels included the following:

- 1. Alternaria
- 2. Epicoccum
- 3. Other browns
- 4. Pithomyces

1.3+ outdoor baseline Outdoor sample indicated Zero (0) Outdoor sample indicated Zero (0) 7+ x outdoor baseline

Mrs. Rinner room:

The sample collected indicated a trace level of *Pithomyces* fungi. **Prior levels included the following**:

Outdoor sample indicated Zero (0)
Outdoor sample indicated Zero (0)
2.4+ outdoor baseline

Computer lab:

The sample collected indicated a trace level of *Penicillium/Aspergillus* fungi. **Prior levels included the following**:

1. Epicoccum

1. Curvularia

3. Pithomyces

2. *Other browns*

- 2. Nigrospora
- 3. Oidium
- 4. Pithomyces

Outdoor sample indicated Zero (0)Outdoor sample indicated Zero (0)Outdoor sample indicated Zero (0)12+ x outdoor baseline

Art room:

The sample collected indicated ZERO airborne fungi. **Prior levels included the following:**

1.	Alternaria	2.75 x outdoor baseline
2.	Epicoccum	Outdoor sample indicated Zero (0)
3.	Nigrospora	Outdoor sample indicated Zero (0)
4.	Oidium	Outdoor sample indicated Zero (0)
5.	Pithomyces	13+ x outdoor baseline

Music room:

The sample collected indicated ZERO airborne fungi. **Prior levels included the following:**

- 1. Alternaria
- 2. Curvularia
- 3. Epicoccum
- 4. Pithomyces

1.3+ x outdoor baseline Outdoor sample indicated Zero (0) Outdoor sample indicated Zero (0) 36.5+ x outdoor baseline

Office:

The sample collected indicated ZERO airborne fungi. **Prior levels included he foillowing:**

- 1. Alternaria
- 2. Epicoccum
- *3. Other browns*

2 x outdoor baseline Outdoor sample indicated Zero (0) Outdoor sample indicated Zero (0

Additions:

Samples were also collected in the following rooms with laboratory results as noted:

Supplementary Statistical Spore Trap Report:

This supplemental report is done to do a statistical analysis through a complicated set of parameters to determine whether or not the sample results are more likely to come from indoors or from outdoors. Final ratings are listed from a low of 100 to a high of 300. The basis of this report is to identify if the problem is ubiquitous and due to normal ventilation and infiltration or if the problem is caused by a reservoir of growth somewhere within the space tested. Any rating of "medium to high" is indicative of a reservoir of active growth impacting the conditioned, tested space.

		Pre	Remediation	Post remediation
1.	Mrs. Roth	High.	Score 262	
2.	Ms. Lemon	High.	Score 300	103
3.	Mrs. Slagel	Medium.	Score 235	105
4.	Mrs. Grimm	Medium.	Score 242	100
5.	Ms. Boyer	Medium.	Score 210	103
6.	Mrs. Rinner	Low.	Score 144	105

	P	re remediation	Post remediation
7. Basement	Low.	Score 140	
8. Computer lab	Medium	Score 245	108
9. Art room	High	Score 256	100
10. Music room	High	Score 298	100
11. Office	Medium	Score 160	100
Additions this sampling:	Po	ost remediation	
12. Mrs. Hudson	Low	Score 100	
13. Conference room	Low	Score 100	
14. Mr. Donaldson	Low	Score 100	
15. Mrs. Schaffer	Low	Score 103	
16. Reading recovery	Low	Score 103	
17. Mrs. Hagge	Low	Score 103	
18. Mrs. Stehn	Low	Score 118	
19. Mr. Wilson	Low	Score 100	
20. Library	Low	Score 100	

Swab Samples:

Several swab (direct contact) samples were collected to identify any remaining fungi/bacteria and determine viability.

- 1. Mrs. Boyer Carpet: Normal trapping with nothing detected
- 2. Mrs. Boyer HVAC: Trace of *Cladosporium* hyphae. Indicative of dead spores.
- 3. Mrs. Hudson carpet: Normal trapping with nothing detected.
- 4. Mrs. Hudson carpet 2nd location: Normal trapping with nothing detected.

Conditions and Limitations.

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Analysis of samples at the time they were taken is based on concentration ratios between an outdoor control sample, used as a benchmark, and the proportionality of concentration counts obtained within the structure. Indoor concentrations should mirror those found outside but with indoor counts in the 20% to 80% range of those found outdoors.

GICC LLC has performed the tasks set forth in the proposed agreement in a thorough and professional manner consistent with industry standards. GICC LLC cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site of the sampling. GICC LLC does not warrant that the assessment requested will satisfy the dictates of, or provide legal defense in connection with environmental law(s), regulations or health issues.

Results reported by GICC LLC are based on interpretation of laboratory analysis of samples submitted and are solely for the benefit of the client. The results and opinions set forth by GICC LLC in its report(s) will be valid as of the date of the report(s). GICC LLC assumes no obligation to advise you of any changes that may later be brought to our attention without benefit of a specified, documented consulting contractual agreement.

Mold and Health.

Much uncertainty exists regarding the health effects of various molds, mildew and fungi. Since people's sensitivity to these issues varies, as do their apparent symptoms, different people may be affected in different degrees of reaction to what is present. There is no clear cut, definitive set of symptoms associated with individual molds and the effects will vary based on the age, health, etc. of the individual(s) affected.

Arthur V. Martin, President



Washington County School Building

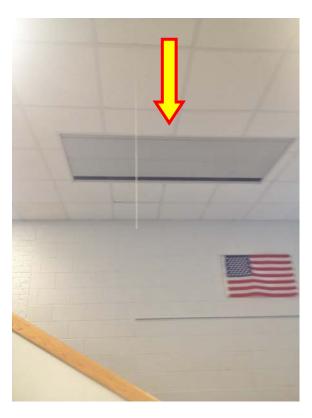


This is a TRANE Chilled Water unit installed at the school recently. The system is coupled to a series of both console units located under the windows on exterior classroom walls and ceiling mounted units where the cabinet face is flush with the dropped ceiling tile height.

The rooms were kept cool but the humidity level and grains of moisture per pound of air were high.

This is typically indicative of an oversized system. An oversized system cannot control moisture in the air and in some instances could be a cause of fungi growth.

A thorough heat loss/heat gain engineering calculation should have been part of the installation. A properly sized and configured unit based on a properly done engineering analysis would rule the HVAC unit out as a causal agent of the fungal proliferation.



This is typical of the ceiling mounted HVAC units supplied by the outdoor Chilled Water unit.



The picture on the left shows a typical ceiling return air grill. The picture on the right shows that it is not, in any way, directly connected to the units mounted in the ceiling being supplied by the chilled water unit located outside. It is open to the entire space above the dropped ceiling.

With these units designed to draw return air for recirculation through the system and back to the conditioned space integral to the unit this arrangement is not a good choice. It will have the effect of equalizing pressurization between the conditioned space (classroom) and the above the ceiling plenum but, and this is the big issue, the HVAC unit will draw return air from above the ceiling space rather than from in the room in larger quantity. This air is in a location (above the ceiling) that is not conditioned or sanitized and any pathogens located and/or growing there will be recirculated through the HVAC back into the classroom where children are located.

This type of installation is done for several reasons but the main one is to reduce installation cost. It is not acceptable in a health care setting and local codes may in fact prohibit the installation in a school setting.

In a location where carpeting is present, such as these classrooms, there is the chance of recirculating bacterial contamination from the carpets as well as fungal spores.

See the section of this report on bacterial sampling for carpet sample results.



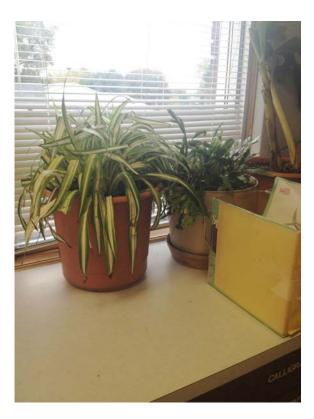
Here we see a typical classroom setting. Note the masking tape on the carpeting indicating where children sit and come in contact with the carpeting.



This is a residential type portable dehumidifier being used in an attempt to keep the relative humidity level in a classroom at an acceptable amount where fungi do not grow.



This is the Art Room.



These plants were located in the Art Room. There appeared to be some fungi growing on them and a sample was collected.

Results are in the Bacterial Sampling section of the report.



The basement is not conditioned. It is subject to flooding and standing water at times. The white material on the brick wall is not fungal growth but rather calcium that comes out of the concrete brick and mortar. It is, however, a prime indicator of high moisture levels.



Report for:

Mr. Arthur Martin Global Infection Control Consultants LLC 23 Countryside Ct. Bluffton, SC 29909

Regarding: Project: UACO School Clear; Clearance Samples EML ID: 1165810

Approved by:

ho

Technical Manager Dr. Kamashwaran Ramanathan

Dates of Analysis: Spore trap analysis: 01-31-2014

Service SOPs: Spore trap analysis (1038) AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples

Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	20243473: Outdoor		20243454: Mrs. Grimm		20241557: Reading recovery		20243442: Computer lab	
Comments (see below)		labor		Vone		g recovery		Julei 1ab
Lab ID-Version‡:		5032-1		5033-1		5034-1		5035-1
Analysis Date:	01/3	1/2014	01/3	1/2014	01/3	31/2014	01/3	1/2014
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores								
Basidiospores								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	1	53			1	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†							1	53
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+) ^{††}	3+		2+		2+		2+	
Hyphal fragments/m3	40		< 13		< 13		< 13	
Pollen/m3	13		< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		53		< 13		53		53

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

[†] The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples

Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	20243435: Mrs. Hagge		20243460: Mrs. Stehn		20243464: Mr. Wilson		19000291: Ms. Lemon	
Comments (see below)		Vone		Vone		lone	None	
Lab ID-Version [‡] :	527	5036-1	527	5037-1	527	5038-1	5275039-1	
Analysis Date:	01/3	1/2014	01/3	31/2014	01/3	1/2014	01/3	1/2014
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores								
Basidiospores								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium							1	53
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†			2	110				
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	1	13						
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+		2+		2+		1+	
Hyphal fragments/m3	< 13		< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+		< 1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		13		110		< 13		53

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

[†] The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory. A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples

Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

tion:	20243437: Mrs. Smith art room		20243431: Slaegal		20243444: Mrs. Dauldson		19000195: Mrs. Schaffer	
ments (see below)		lone		lone		Jone	None	
D-Version [‡] :		5040-1		5041-1		5042-1	5275043-1	
ysis Date:		1/2014		1/2014		51/2014		1/2014
								1
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
ospores								
diospores								
olaris/Drechslera group			1	13				
ytis								
etomium								
losporium							1	53
ularia								
occum								
rium								
othecium								
ospora								
er colorless								
cillium/Aspergillus types†								
omyces								
S								
ts, Periconia, Myxomycetes								
hybotrys								
nphylium								
la								
cladium								
omycetes								
(ground debris (1-4+) ^{††}	2+		2+		2+		1+	
hal fragments/m3	< 13		< 13		< 13		< 13	
en/m3	< 13		< 13		< 13		< 13	
cells (1-4+)	1+		1+		1+		< 1+	
ple volume (liters)	75		75		75		75	
```´		< 13		13		< 13		53
DTAL SPORES/m3		< 13		13		< 13		

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

[†] The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

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Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples

Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	20243428: Mrs. Hudson		20243452: Music room		19000293: Conference room		20243463: Office	
2					None			
Comments (see below)		lone		lone			None	
Lab ID-Version [‡] :		5044-1		5045-1		5046-1		5047-1
Analysis Date:	01/3	1/2014	01/3	31/2014	01/3	1/2014	01/3	1/2014
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores								
Basidiospores								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium								
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†								
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+		2+		1+		2+	
Hyphal fragments/m3	< 13		< 13		13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		< 1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		< 13		< 13		< 13		< 13

#### **Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

[†] The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

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Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples

Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	20243498: Library			43430: . Boyer	20243471: Mrs. Rinner		
Comments (see below)		None		None		None	
Lab ID-Version [‡] :		5048-1		5049-1		5050-1	
Analysis Date:		31/2014		31/2014		31/2014	
Analysis Date:							
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Ascospores							
Basidiospores							
Bipolaris/Drechslera group							
Botrytis							
Chaetomium							
Cladosporium			1	53			
Curvularia							
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora							
Other colorless							
Penicillium/Aspergillus types [†]							
Pithomyces					1	13	
Rusts							
Smuts, Periconia, Myxomycetes							
Stachybotrys							
Stemphylium							
Torula							
Ulocladium							
Zygomycetes							
Background debris (1-4+) ^{††}	2+		2+		2+		
Hyphal fragments/m3	< 13		27		< 13		
Pollen/m3	< 13		< 13		< 13		
Skin cells (1-4+)	1+		1+		1+		
Sample volume (liters)	75		75		75		
§ TOTAL SPORES/m3		< 13		53		13	

**Comments:** 

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

[†] The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

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Report for:

Mr. Arthur Martin Global Infection Control Consultants LLC 23 Countryside Ct. Bluffton, SC 29909

Regarding: Project: UACO School Clear; Clearance Samples EML ID: 1165810

Approved by:

ho

Technical Manager Dr. Kamashwaran Ramanathan

Dates of Analysis: Direct microscopic exam (Qualitative): 01-31-2014

Service SOPs: Direct microscopic exam (Qualitative) (1039) AIHA-LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

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Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

### DIRECT MICROSCOPIC EXAMINATION REPORT

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression						
Lab ID-Version [‡] : 5	275028-1, Analysis	Date: 01/31/2014: Swab sample SW-1	: Boyer carpet							
Light	Very few	None	None	Normal trapping						
Lab ID-Version: 5275029-1, Analysis Date: 01/31/2014: Swab sample SW-2: Boyer HVAC										
Moderate	Very few	< 1+ <i>Cladosporium</i> species (spores, hyphae)	None	Minimal mold growth						
Lab ID-Version: 52	275030-1, Analysis I	Date: 01/31/2014: Swab sample SW-3:	Hudson carpet							
Light	Very few	None	None	Normal trapping						
Lab ID-Version: 52	275031-1, Analysis I	Date: 01/31/2014: Swab sample SW-4:	Hudson carpet							
Light	Very few	None	None	Normal trapping						
	-									

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

^{††} Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

#### **MoldRANGETM: Extended Outdoor Comparison**

#### **Outdoor Location: 20243473, Outdoor**

Fungi Identified	Outdoor	Typical Outdoor Data for:			Typical Outdoor Data for:								
	data		Janua	ry in Io	wa† (n	<b>‡=89</b> )		The entire year in Iowa† (n‡=2733)					
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	-	-	-	-	-	21	13	27	110	330	600	71
Bipolaris/Drechslera group	-	-	-	-	-	-	< 1	7	7	13	27	53	15
Chaetomium	-	-	-	-	-	-	4	7	7	13	17	27	4
Cladosporium	53	27	53	80	320	530	72	110	270	1,600	5,500	10,000	93
Curvularia	-	-	-	-	-	-	< 1	7	13	13	40	67	15
Nigrospora	-	-	-	-	-	-	4	7	13	22	67	120	30
Penicillium/Aspergillus types	-	27	31	100	210	270	56	40	53	160	560	1,000	54
Pithomyces	-	-	-	-	-	-	4	7	13	33	110	210	35
Stachybotrys	-	-	-	-	-	-	1	7	7	13	21	77	< 1
Torula	-	-	-	-	-	-	1	7	13	24	53	87	12
Seldom found growing indoors**													
Ascospores	-	13	21	53	100	220	26	53	130	610	2,300	4,000	81
Basidiospores	-	26	53	73	240	580	60	73	200	1,200	4,100	7,700	90
Rusts	-	-	-	-	-	-	4	13	13	33	93	190	40
Smuts, Periconia, Myxomycetes	-	7	7	20	53	67	33	13	17	58	190	360	68
§ TOTAL SPORES/m3	53												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

#### $\ddagger$ n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

### MoldSTATTM: Supplementary Statistical Spore Trap Report

#### Outdoor Summary: 20243473: Outdoor

Species detected	Outdoo	r sample sj	pores/m3	Typical outdoor ranges	Freq.
	<100 1K 10K >100K			(North America)	%
Ascospores			< 13	13 - 210 - 5,700	76
Basidiospores			< 13	15 - 450 - 24,000	92
Cladosporium			53	27 - 480 - 10,000	90
Penicillium/Aspergillus types			< 13	13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes			< 13	7 - 53 - 930	64
Total			53		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

### **Indoor Samples**

#### Location: 20243454: Mrs. Grimm

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)				
Result: < 1%	Result: < 1% dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes		dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low				
Species 1	Detected	Spores/m3						
		<100 1K	10K	>100K				
	None Detected			<13				

#### Location: 20241557: Reading recovery

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 100%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 1.0000		dF: 1 Result: N/A Critical value: N/A Outside Similar: N/A	Score: 103 Result: Low
Species Detected				Spores/m3	
		<100	1K	10K	>100K
	Cladosporium				53
	Total				53

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Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

### MoldSTATTM: Supplementary Statistical Spore Trap Report

#### Location: 20243442: Computer lab

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 100%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000		dF: 2 Result: -1.0000 Critical value: N/A Outside Similar: N/A	Score: 108 Result: Low
Species Detected				Spores/m3	
		<100	1K	10K	>100K
Penicillium/Aspergillus types <b>Total</b>					<u>53</u> 53

#### Location: 20243435: Mrs. Hagge

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 24%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000		dF: 2 Result: -1.0000 Critical value: N/A Outside Similar: N/A	Score: 103 Result: Low
Species Detected				Spores/m3	
		<100	1K	10K	>100K
Smuts, Periconia, Myxomycetes					13
	Total				

#### Location: 20243460: Mrs. Stehn

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 207%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000		dF: 2 Result: -1.0000 Critical value: N/A Outside Similar: N/A	Score: 118 Result: Low
Species Detected				Spores/m3	
		<100	1K	10K	>100K
Penicillium/Aspergillus types Total					<u> </u>

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples (866) 888-6653 Fax (650) 829-5852 www.emlab.com Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014

Date of Report: 01-30-2014 Date of Report: 01-31-2014

### MoldSTATTM: Supplementary Statistical Spore Trap Report

#### Location: 20243464: Mr. Wilson

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species Detected			Spores/m3	
		<100 1K	10K	>100K
	None Detected			<13

#### Location: 19000291: Ms. Lemon

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 100%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 1.0000		dF: 1 Result: N/A Critical value: N/A Outside Similar: N/A	Score: 103 Result: Low
Species Detected				Spores/m3	
		<100	1K	10K	>100K
	Cladosporium <b>Total</b>				<u>53</u> 53

#### Location: 20243437: Mrs. Smith art room

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species Detected			Spores/m3	
		<100 1K	10K	>100K
	None Detected			<13

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

# MoldSTATTM: Supplementary Statistical Spore Trap Report

#### Location: 20243431: Slaegal

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 24%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000		dF: 2 Result: -1.0000 Critical value: N/A Outside Similar: N/A	Score: 105 Result: Low		
Species 2	Detected			Spores/m3			
		<100 1K		10K	>100K		
Bipolaris/Drechslera group Total					13		

#### Location: 20243444: Mrs. Dauldson

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species	Detected		Spores/m3	
		<100 1K	10K	>100K
	None Detected			< 13

#### Location: 19000195: Mrs. Schaffer

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 100%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 1.0000	dF: 1 Result: N/A Critical value: N/A Outside Similar: N/A	Score: 103 Result: Low		
Species	Detected		Spores/m3			
		<100 1K	10K	>100K		
	Cladosporium			53		
	Total			53		

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples

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# MoldSTATTM: Supplementary Statistical Spore Trap Report

#### Location: 20243428: Mrs. Hudson

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species 1	Detected		Spores/m3	
		<100 1K	10K	>100K
	None Detected			<13

#### Location: 20243452: Music room

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low		
Species 2	Detected	Spores/m3				
		<100 1K	10K	>100K		
	None Detected			<13		

#### Location: 19000293: Conference room

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low		
Species 1	Species Detected		Spores/m3			
		<100 1K	10K	>100K		
	None Detected			<13		

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# MoldSTATTM: Supplementary Statistical Spore Trap Report

#### Location: 20243463: Office

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low		
Species 1	Detected	Spores/m3				
		<100 1K	10K	>100K		
	None Detected			<13		

#### Location: 20243498: Library

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species 2	Detected		Spores/m3	
		<100 1K	10K	>100K
	None Detected			<13

#### Location: 20243430: Mrs. Boyer

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 100%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 1.0000		dF: 1 Result: N/A Critical value: N/A Outside Similar: N/A	Score: 103 Result: Low
Species	Detected			Spores/m3	
_		<100 1K		10K	>100K
Cladosporium					53
	Total				53

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#### MoldSTATTM: Supplementary Statistical Spore Trap Report

#### Location: 20243471: Mrs. Rinner

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 24%	dF: 17 Result: 2.5614 Critical value: 27.5871 Inside Similar: Yes	Result: 0.0000		dF: 2 Result: -1.0000 Critical value: N/A Outside Similar: N/A	Score: 105 Result: Low
Species 2	Detected			Spores/m3	
		<100	1K	10K	>100K
	Pithomyces				13
	Total				13

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORETM is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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# MoldSCORETM: Spore Trap Report

#### Outdoor Sample: 20243473 Outdoor

Fungi Identified	Ot	ıtdo	or	sam	ple	e spo	res	/m	3	Raw	Spores/
	<10	0	1	ΙK		10K		>100	)K	count	m3
Generally able to grow indoors*											
Alternaria										ND	< 13
Bipolaris/Drechslera group										ND	< 13
Chaetomium										ND	< 13
Cladosporium										1	53
Curvularia										ND	< 13
Nigrospora										ND	< 13
Penicillium/Aspergillus types†										ND	< 13
Stachybotrys										ND	< 13
Torula										ND	< 13
Seldom found growing indoors**											
Ascospores										ND	< 13
Basidiospores										ND	< 13
Rusts										ND	< 13
Smuts, Periconia, Myxomycetes										ND	< 13
Total											53

#### Location: 20243454 Mrs. Grimm

Fungi Identified	Indoo	r samj	ple spor	es/m3	Raw	Spores/		MoldS	CORE:	
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types [†]					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A	Fir	al MoldS	CORE	100

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# MoldSCORETM: Spore Trap Report

#### Location: 20241557 Reading recovery

Fungi Identified	Indoo	r san	ple spo	ores	s/m3	Raw	Spores/		MoldSC		
	<100	1K	10	K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*											
Alternaria						ND	< 13				100
Bipolaris/Drechslera group						ND	< 13				100
Chaetomium						ND	< 13				100
Cladosporium						1	53				103
Curvularia						ND	< 13				100
Nigrospora						ND	< 13				100
Penicillium/Aspergillus types [†]						ND	< 13				100
Stachybotrys						ND	< 13				100
Torula						ND	< 13				100
Seldom found growing indoors**											
Ascospores						ND	< 13				100
Basidiospores						ND	< 13				100
Rusts						ND	< 13				100
Smuts, Periconia, Myxomycetes						ND	< 13				100
Total							53	Fi	nal MoldSC	CORE	103

#### Location: 20243442 Computer lab

Fungi Identified	Indoor	samp	le spore	s/m3	Raw	Spores/		MoldS		
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types [†]					1	53				108
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						53	Fina	al MoldS(	CORE	108

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# **MoldSCORETM:** Spore Trap Report

#### Location: 20243435 Mrs. Hagge

Fungi Identified	Indoo	r san	iple sp	ore	s/m3	Raw	Spores/		MoldS		
	<100	1K	1	0K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*											
Alternaria						ND	< 13				100
Bipolaris/Drechslera group						ND	< 13				100
Chaetomium						ND	< 13				100
Cladosporium						ND	< 13				100
Curvularia						ND	< 13				100
Nigrospora						ND	< 13				100
Penicillium/Aspergillus types†						ND	< 13				100
Stachybotrys						ND	< 13				100
Torula						ND	< 13				100
Seldom found growing indoors**											
Ascospores						ND	< 13				100
Basidiospores						ND	< 13				100
Rusts						ND	< 13				100
Smuts, Periconia, Myxomycetes						1	13				103
Total							13	Fin	al MoldS	CORE	103

### Location: 20243460 Mrs. Stehn

Fungi Identified	Indoor	samp	le spore	s/m3	Raw	Spores/		MoldS		
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					2	110				118
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						107	Fina	al MoldS(	CORE	118

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# **MoldSCORETM:** Spore Trap Report

#### Location: 20243464 Mr. Wilson

Fungi Identified	Indoo	r san	ple spo	ores	s/m3	Raw	Spores/		MoldSC		
	<100	1K	10	K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*											
Alternaria						ND	< 13				100
Bipolaris/Drechslera group						ND	< 13				100
Chaetomium						ND	< 13				100
Cladosporium						ND	< 13				100
Curvularia						ND	< 13				100
Nigrospora						ND	< 13				100
Penicillium/Aspergillus types [†]						ND	< 13				100
Stachybotrys						ND	< 13				100
Torula						ND	< 13				100
Seldom found growing indoors**											
Ascospores						ND	< 13				100
Basidiospores						ND	< 13				100
Rusts						ND	< 13				100
Smuts, Periconia, Myxomycetes						ND	< 13				100
Total							N/A	Fi	nal MoldSC	CORE	100

#### Location: 19000291 Ms. Lemon

Fungi Identified	Indoor	· samp	le spore	s/m3	Raw	Spores/		MoldSC	ORE	•
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				103
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						53	Fin	al MoldSC	ORE	103

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# **MoldSCORETM:** Spore Trap Report

## Location: 20243437 Mrs. Smith art room

Fungi Identified	Indoor	sam	ple spore	s/m3	Raw	Spores/		MoldS		
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types [†]					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A	Fir	nal MoldS	CORE	100

# Location: 20243431 Slaegal

Fungi Identified	Indoo	r sam	ole spore	s/m3	Raw	Spores/		MoldS	CORE:	
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					1	13				105
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						13	Fin	al MoldSC	CORE	105

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# MoldSCORETM: Spore Trap Report

#### Location: 20243444 Mrs. Dauldson

Fungi Identified	Indo	or san	ple s	pore	s/m3	Raw	Spores/			CORE:	
	<100	1K		10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*											
Alternaria						ND	< 13				100
Bipolaris/Drechslera group						ND	< 13				100
Chaetomium						ND	< 13				100
Cladosporium						ND	< 13				100
Curvularia						ND	< 13				100
Nigrospora						ND	< 13				100
Penicillium/Aspergillus types [†]						ND	< 13				100
Stachybotrys						ND	< 13				100
Torula						ND	< 13				100
Seldom found growing indoors**											
Ascospores						ND	< 13				100
Basidiospores						ND	< 13				100
Rusts						ND	< 13				100
Smuts, Periconia, Myxomycetes						ND	< 13				100
Total							N/A	Fi	nal MoldS	CORE	100

### Location: 19000195 Mrs. Schaffer

Fungi Identified	Indoor	· samp	le spore	s/m3	Raw	Spores/		MoldSC	ORE	•
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				103
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						53	Fin	al MoldSC	ORE	103

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# **MoldSCORETM:** Spore Trap Report

#### Location: 20243428 Mrs. Hudson

Fungi Identified	Indoor	sam	ple spore	s/m3	Raw	Spores/		MoldS		
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types [†]					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A	Fir	nal MoldS	CORE	100

### Location: 20243452 Music room

Fungi Identified	Indoor	samp	le spore	s/m3	Raw	Spores/		MoldSC	ORE	
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A	Fin	al MoldSC	ORE	100

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# **MoldSCORETM:** Spore Trap Report

#### Location: 19000293 Conference room

Fungi Identified	Indo	or san	iple s	pore	s/m3	Raw	Spores/	MoldSCORE [‡]			
	<100	1K		10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*											
Alternaria						ND	< 13				100
Bipolaris/Drechslera group						ND	< 13				100
Chaetomium						ND	< 13				100
Cladosporium						ND	< 13				100
Curvularia						ND	< 13				100
Nigrospora						ND	< 13				100
Penicillium/Aspergillus types [†]						ND	< 13				100
Stachybotrys						ND	< 13				100
Torula						ND	< 13				100
Seldom found growing indoors**											
Ascospores						ND	< 13				100
Basidiospores						ND	< 13				100
Rusts						ND	< 13				100
Smuts, Periconia, Myxomycetes						ND	< 13				100
Total							N/A	Fi	nal MoldS	CORE	100

#### Location: 20243463 Office

Fungi Identified	Indoo	r samj	ple spor	es/m3	Raw	Spores/	MoldSCORE [‡]			
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types [†]					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A	Final MoldSCORE 1			100

Client: Global Infection Control Consultants LLC C/O: Mr. Arthur Martin Re: UACO School Clear; Clearance Samples 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (866) 888-6653 Fax (650) 829-5852 www.emlab.com

Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

# **MoldSCORETM: Spore Trap Report**

#### Location: 20243498 Library

Fungi Identified	Indoor sample spores/m3					Raw	Spores/	MoldSCORE [‡]				
	<100	1K		10K	>100K	count	m3	100	20	0	300	Score
Generally able to grow indoors*												
Alternaria						ND	< 13					100
Bipolaris/Drechslera group						ND	< 13					100
Chaetomium						ND	< 13					100
Cladosporium						ND	< 13					100
Curvularia						ND	< 13					100
Nigrospora						ND	< 13					100
Penicillium/Aspergillus types [†]						ND	< 13					100
Stachybotrys						ND	< 13					100
Torula						ND	< 13					100
Seldom found growing indoors**												
Ascospores						ND	< 13					100
Basidiospores						ND	< 13					100
Rusts						ND	< 13					100
Smuts, Periconia, Myxomycetes						ND	< 13					100
Total							N/A	Fi	nal Mol	dSCO	RE	100

#### Location: 20243430 Mrs. Boyer

Fungi Identified	Indoor	samp	ole spore	s/m3	Raw	Spores/	MoldSCORE [‡]			
	<100	1K	10K	>100K	count	m3	100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				103
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types [†]					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						53	Final MoldSCORE 10			103

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Date of Sampling: 01-25-2014 Date of Receipt: 01-30-2014 Date of Report: 01-31-2014

#### **MoldSCORETM: Spore Trap Report**

#### Location: 20243471 Mrs. Rinner

Fungi Identified	Indo	or san	nple spor	res/m3	Raw	Spores/	MoldSCORE [‡]			
	<100	1K	10K	>100K	count	m3	100	) 200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types [†]					ND	< 13				100
Pithomyces					1	13				105
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						13	F	inal MoldS	CORE	105

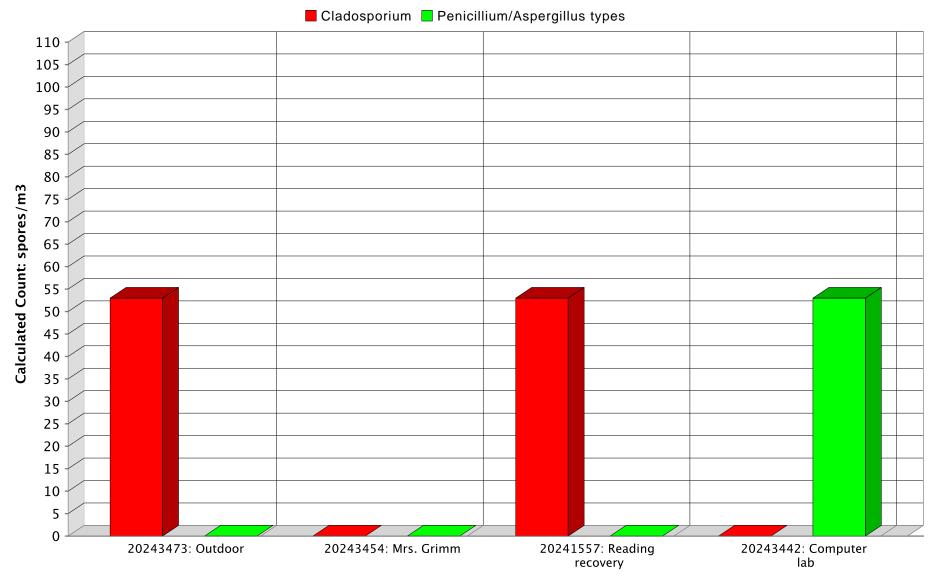
* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

[†]The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

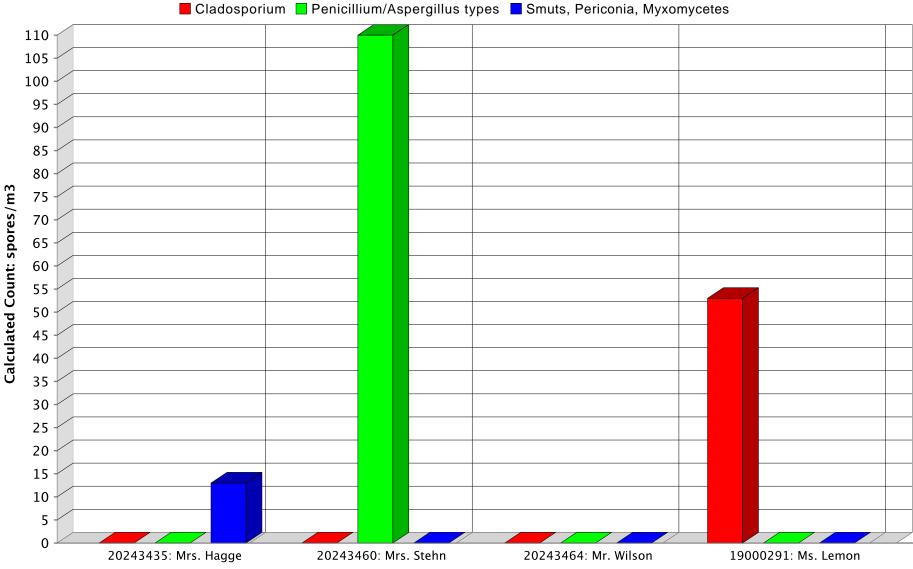
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# SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

#### **Comments:**

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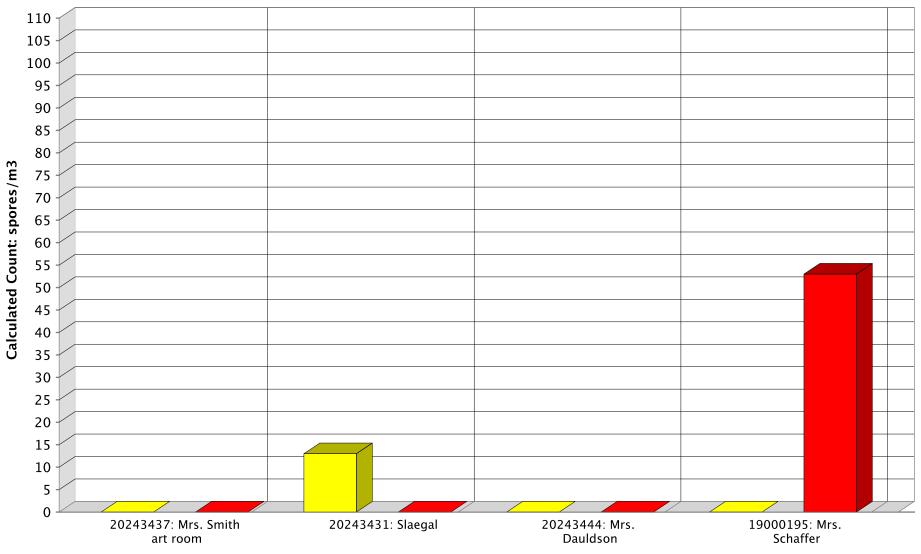


#### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

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# SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

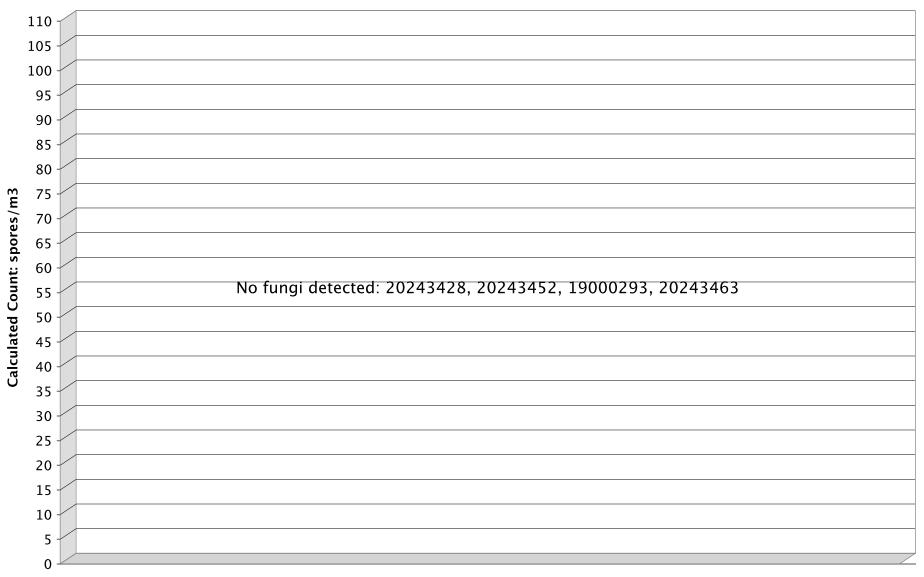


Bipolaris/Drechslera group Cladosporium

#### **Comments:**

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### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

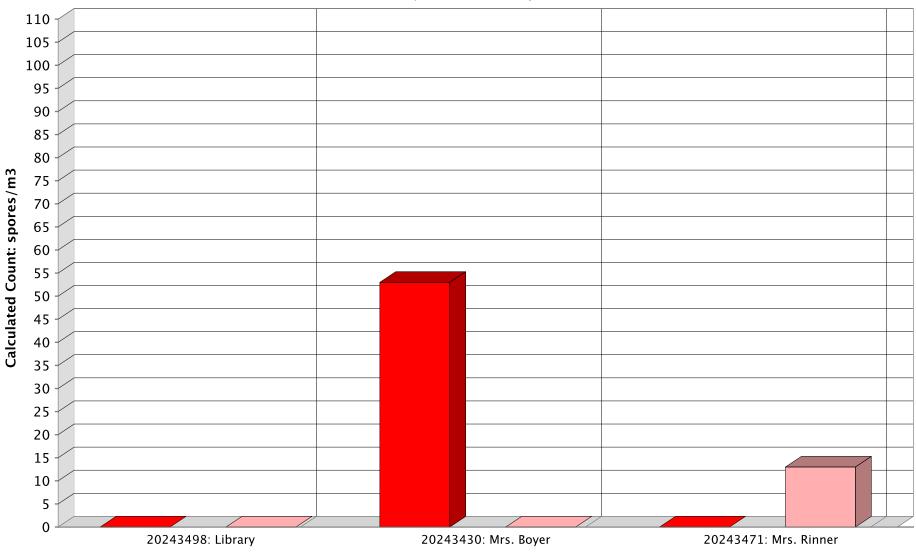
#### **Comments:**

Note: Graphical output may understate the importance of certain "marker" genera. EMLab P&K, LLC

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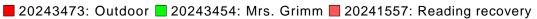
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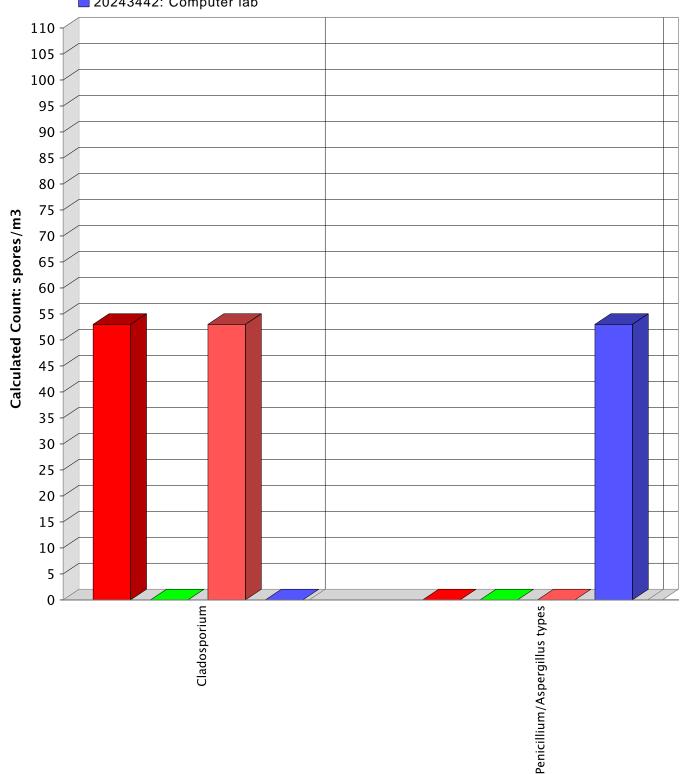


Cladosporium Pithomyces

#### **Comments:**

# SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

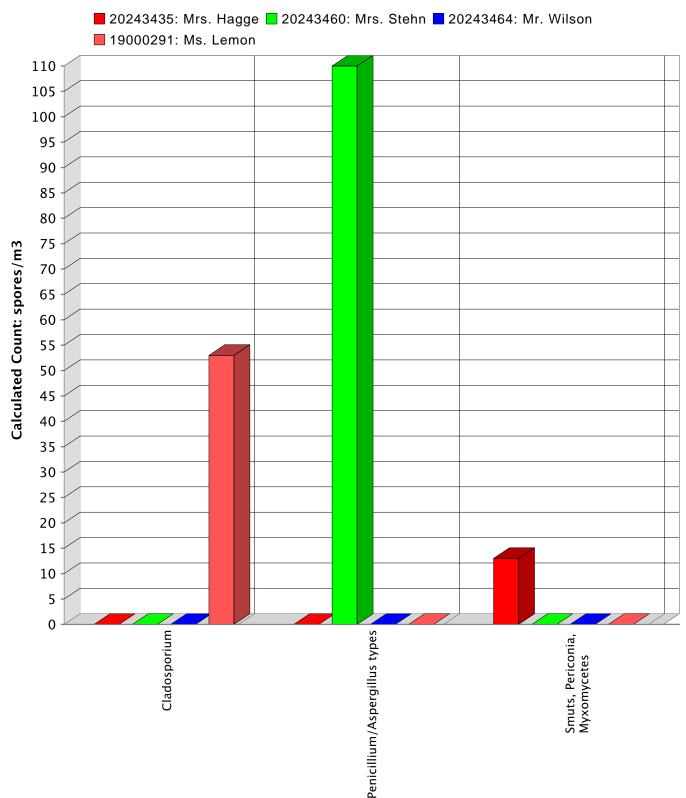




# 20243442: Computer lab

#### **Comments:**

## SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

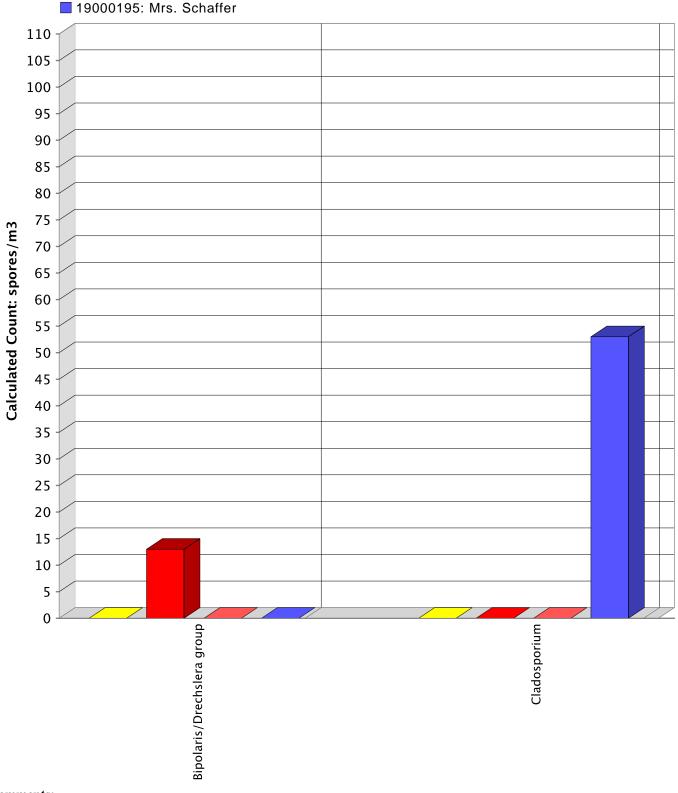


#### **Comments:**

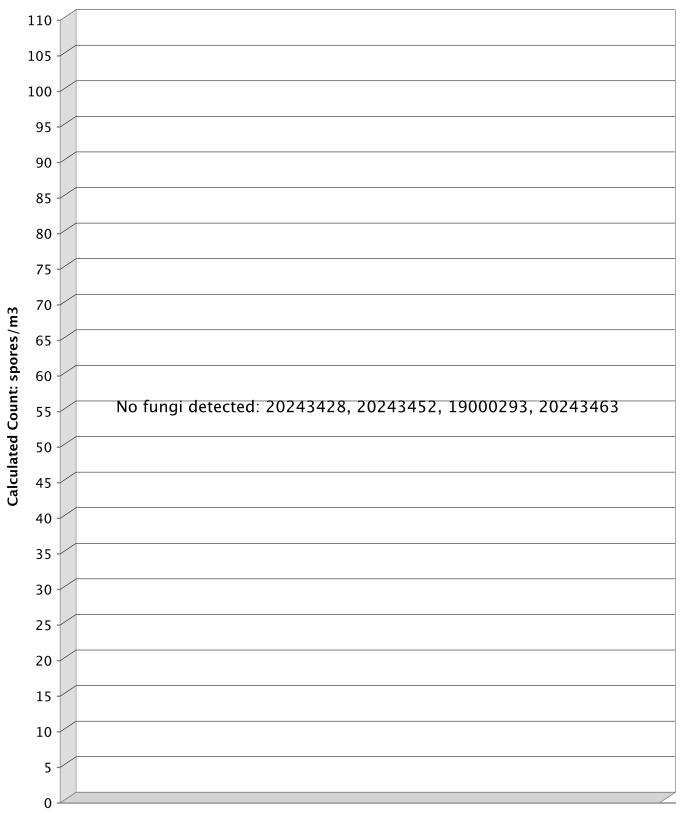
Note: Graphical output may understate the importance of certain "marker" genera. EMLab P&K, LLC

# SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

20243437: Mrs. Smith art room 20243431: Slaegal 20243444: Mrs. Dauldson

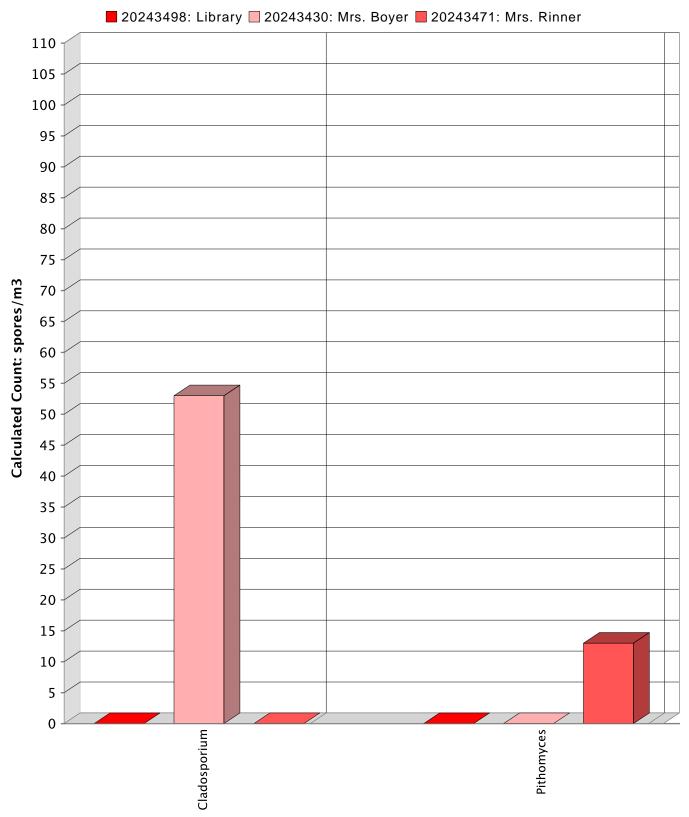


#### **Comments:**



# SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

#### **Comments:**



# SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

#### **Comments:**