



The Scott Lawson Group, Ltd.

Environmental, Health & Safety Consultants

December 12, 2011

Mr. Peter Barbuto, Facilities Manager
School Administrative Unit No. 15
Hooksett School District
90 Farmer Road
Hooksett, New Hampshire 03106

Re: Indoor Air Quality Survey – Auburn Village School-Portables
SLGL File Number 11-943

Dear Mr. Barbuto:

On December 1, 2011, *The Scott Lawson Group, Ltd. (SLGL)* conducted a limited Indoor Air Quality (IAQ) Survey for SAU 15 at the Auburn Village School located at 11 Eaton Road in Auburn, New Hampshire. The objective of the Survey was to evaluate potential hidden mold inside the wall cavities of Portable Classrooms P-1 and P-2. This was accomplished by drilling a small hole in the wall cavity to be checked, and inserting a plastic tube into the hole. Air is then drawn from the wall cavity into the sample cassette, the hole was then sealed with tape and labeled with the sample number.

As requested by the SAU, each wall panel, ceiling plenums and ambient air in each classroom was tested as part of this survey. *SLGL* collected thirty-four (34) Air-O-Cell® samples in these locations, as well as a sample outside the building (for comparison purposes), and an analytical blank (for quality control purposes) for the evaluation of total airborne fungal spore concentrations. Further, *SLGL* took tape lift samples of what appeared to be fungal growth on several surfaces within the portable classrooms.



Air Samples – Total Spore Counts with Predominant Genus Identification:

Each sample was collected by drawing air through an Air-O-Cell sampling cassette. Analysis of the Air-O-Cell cassettes (with count and identification by Predominant Genus) was used to determine total airborne viable and non-viable Fungi spores. All Fungi are considered to be potentially allergenic. (The term “genus” refers to the particular “family” of Fungi or Bacteria, and there are individual species within each genus.)

Wall Cavities

The samples collected inside the wall cavities ranged from No Structures Detected (NSD) to 11,733 spores per cubic meter of air (NSD – 11,733 Ct/m³). Based on the sampling results the following wall cavities will require remediation:

- Classroom P-1 South Wall from door opening to fifth wall panel.

No wall panels in Classroom P-2 will require remediation at this time, based upon analytical results.

Ceiling Plenums

A sample was collected in each ceiling plenum as follows:

- P-1, Bathroom Ceiling Plenum, showed an ambient fungal spore concentration of 533 Ct/m³. *Stachybotrys* fungus, a mold that thrives on prolonged water damaged materials and has the ability to produce mycotoxins was detected. Visible mold growth was observed on the roof deck and rafters. See below for tape lift sample results collected of suspect mold growth on the roof deck and rafters.
- P-2, Ceiling Plenum above water stain on northwest corner of room showed ambient fungal spore concentration of NSD. This area should be removed to allow further inspection of attic area and roof system to determine source of water intrusions.

Crawlspace P-1 and P-2 Portable

On December 2, 2011, *SLGL* performed a visual inspection and spore trap sampling in the crawlspace located under P-1 and P-2 Classrooms. The sample collected showed ambient fungal spore concentration at 4,480 Ct/m³. The outdoor air sample showed ambient fungal spore concentration at 2,773 Ct/m³. Analysis of the spore traps indicates that levels inside the crawlspace exceeded the outdoor sample. While there was no visible signs of microbial growth, results showed a predominant Genera of *Paecilomyces* being identified; *Paecilomyces* inhabits soils and decaying plants. Some species of *Paecilomyces* can cause infections in humans, while it has not been identified in either classroom, cleaning of the crawlspace is warranted.

Surface Tape Lift Samples:

SLGL collected five (5) tape lift samples from suspect areas to determine the deposition of both viable (able to grow) and non-viable (not able to grow) fungal spores. Each sample was collected by placing a clear piece of tape onto the sampling surface removing it, and the adhering it onto a glass slide. Each sample was issued a unique sample identification number, placed into a sealed plastic container, and its location documented. The sample was delivered to our in-house laboratory under chain-of-custody protocol where it was analyzed for fungal identification.

- Two (2) tape lift samples collected sample from the roof deck and/or rafters around a vent pipe yielded the following results:
 - ❖ Identified *Acremonium* and *Stachybotrys* Fungi, which require very wet conditions and have been known to produce mycotoxins. The samples also showed concentrations of *Aspergillus/Penicillium*-like Fungi, Basidiospores, and *Cladosporium*. In addition there were also hyphal fragments, which are components of fungal reproduction.

The presence of *Acremonium*, *Stachybotrys*-like Fungi, and hyphal fragments are indicators of on-going microbial contamination and will require remediation of the surfaces and repair to the roof system.

- A tape lift collected of black staining on a wall stud in Classroom P-2, that was exposed during previous mold remediation, was loaded with *Cladosporium* and hyphal fragments.

The identification of *Cladosporium* spores does not necessarily mean there is microbial contamination, as it is very common in most buildings. However the presence of hyphal fragments suggest on-going fungal growth and the studs will require cleaning as part of future remediation activities.

- Tape lift samples collected on the exterior siding of the P-1 and P-2 Portable and on the pressure treated wood utilized for the covered walkway, were loaded with *Cladosporium* and hyphal fragments. Also identified were sparse amounts of *Alternaria* and Basidiospores.

Cladosporium and *Alternaria* are dark colored molds and are probably the source of the dark staining on the siding and walkway. *Cladosporium* and *Alternaria* spores are rather large and do not stay airborne for long. These surfaces should be cleaned and treated.

The sampling results indicate that the Portable Classroom Building that contains P-1 & P-2 Classrooms requires additional microbial remediation prior to re-occupancy.

Thank you for providing *The Scott Lawson Group, Ltd.* with the opportunity to assist you with this project. We trust that you will find everything in order; however, should you have any questions or comments, please feel free to contact either Richard Lent, Director of Technical Services or me at your earliest convenience.

Sincerely,

The Scott Lawson Group, Ltd.



Stephen McPherson
Senior Safety and Health Professional
Member Indoor Air Quality Association (#7954)
Associate Member ACGIH (#305730-00)

Enclosures

WARRANTY

The conclusions and recommendations contained in this report are based on information available to *SLGL* as of December 2 2011. *SLGL* provides no warranties on information provided by third parties and contained herein. Data compiled were in accordance with *SLGL's* approved scope of services and should not be construed beyond their limitations. Any interpretations or use of this report other than those expressed herein are not warranted. The use, partial use, or duplication of this report without the expressed written consent of *The Scott Lawson Group, Ltd.*, is strictly prohibited.

APPENDIX A

ANALYTICAL RESULTS

Spore Traps

COPY

Client: SAU #15
 90 Farmer Road
 Hooksett, NH 03106
 SLGL Job #: 11-1044
 Client Project: Auburn Village School
 Report Date: December 7, 2011
 Date Sampled: December 2, 2011
 Date Received: December 5, 2011
 Collected by: SRM
 Analyzed by: NEF, #01040036



Analytical Results

Lab Number:	294056	294057	294058
Sample Identification:	11-1044-A07, Area, background, classroom 120, occupational therapy (VCT)	11-1044-A08, Area, background, Portable classroom crawlspace	11-1044-A09, outdoor, outside building rear entrance
Analysis:	Fungi Enumeration & Identification - Direct Examination	Fungi Enumeration & Identification - Direct Examination	Fungi Enumeration & Identification - Direct Examination
Methodology:	SLGL-3067	SLGL-3067	SLGL-3067
Sample Media:	Air-O-Cell	Air-O-Cell	Air-O-Cell
Debris Rating:	3	2	2
Air Volume (L):	75.0	75.0	75.0
Minutes:	5	5	5
Date Analyzed:	December 6, 2011	December 6, 2011	December 7, 2011

Mold/Fungi Type	Raw Count	Count/m ³	Raw Count	Count/m ³	Raw Count	Count/m ³
<i>Alternaria</i>						
Ascospores						
** <i>Aspergillus/Penicillium</i> - like	10	533	9	480		
Basidiospores	9	480	20	1,067	45	2,400
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>						
<i>Chaetomium</i>						
<i>Cladosporium</i>	1	53	14	747	4	213
<i>Curvularia</i>						
<i>Epicoccum</i>					1	53
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts					2	107
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>						
rusts						
<i>Spiegelhnia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/unidentified	1	53				
hyphal fragments	1	53				
<i>Paecilomyces</i>			41	2,187		
Total fungal spores and fragments:	22	1,173	84	4,480	52	2,773
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

< Less Than

> Greater Than

Count/m³: Count per meter cubed

PAACB: Pan-American Aerobiology Certification Board

Detection Limit: The detection limit is equal to one fungal spore or hyphal fragment.

***Aspergillus* and *Penicillium* spores (and others such as *Paecilomyces*) are small and round with few distinguishing characteristics. They cannot be distinguished by this method.

*: No analytical field blank submitted with associated sample(s).

Background Debris: Background debris is an indication of the amount of non-microbial debris present on the slide and is rated on a scale of 1 to 5:

Debris Load of 1: <10% debris present. Counts not affected.

Debris Load of 2: 11-25% debris present. Counts not affected.

Debris Load of 3: 25-75% debris present. Counts may be underestimated.

Debris Load of 4: 76-90% debris present. Counts underestimated.

Debris Load of 5: >90% debris present. Counts could not be determined, sample overloaded.

Reviewed by:



Approved By:



Norman Fletcher, Lab Manager

Batch No: 120211-01



Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No.: 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A01			11-943-A02			11-943-A03		
Lab Sample ID	120211-01-1			120211-01-2			120211-01-3		
Location:	Classroom P-1/Center			Classroom P-1/E Panel#1			Classroom P-1/E Panel#2		
Volume:	75			30			30		
Analytical Sens.:	53			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores	1	53	100						
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments									
Nigrospora sp.									
Penicillium/Asp.*									
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	1	53	100	NSD	NSD		NSD	NSD	
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

Batch No: 120211-01



Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No.: 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A04			11-943-A05			11-943-A06		
Lab Sample ID	120211-01-4			120211-01-5			120211-01-6		
Location:	Classroom P-1/E Panel#3			Classroom P-1/E Panel#4			Classroom P-1/E Panel#5		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores							1	133	100
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments									
Nigrospora sp.									
Penicillium/Asp.*									
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	NSD	NSD		NSD	NSD		1	133	100
Pollen									
Skin Fragments									
Level of debris	Moderate			Heavy			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomycetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

Batch No: 120211-01



Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No. : 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A07			11-943-A08			11-943-A09		
Lab Sample ID	120211-01-7			120211-01-8			120211-01-9		
Location:	Classroom P-1/E Panel#6			Classroom P-1/S Panel#1			Classroom P-1/S Panel#2		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores							1	133	14
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.							1	133	14
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments							1	133	14
Nigrospora sp.									
Penicillium/Asp.*				6	800	35	4	533	57
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.				11	1467	65			
Stemphylium sp.									
Ulocladium sp.									
Other	1	133	100						
Unknown									
Total Fungal Stuct	1	133	100	17	2267	100	7	933	100
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

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Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No.: 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A10			11-943-A11			11-943-A12		
Lab Sample ID	120211-01-10			120211-01-11			120211-01-12		
Location:	Classroom P-1/S Panel#3			Classroom P-1/S Panel#4			Classroom P-1/S Panel#5		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores									
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments									
Nigrospora sp.									
Penicillium/Asp.*	88	11733	100	4	533	100			
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	88	11733	100	4	533	100	NSD	NSD	
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomycetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

Batch No: 120211-01



Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No.: 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A13			11-943-A14			11-943-A15		
Lab Sample ID	120211-01-13			120211-01-14			120211-01-15		
Location:	Classroom P-1/S Panel#6			Classroom P-1/Div. Panel#1			Classroom P-1/Div. Panel#2		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores				1	133	50			
Bipolaris*									
Chaetomium sp.							1	133	100
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments				1	133	50			
Nigrospora sp.									
Penicillium/Asp.*									
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Stuct	NSD	NSD		2	267	100	1	133	100
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

Batch No: 120211-01



Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No. : 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A16			11-943-A17			11-943-A18		
Lab Sample ID	120211-01-16			120211-01-17			120211-01-18		
Location:	Classroom P-1/Div. Panel#3			Foyer Wall Cav.			Classroom P-1/Bath Plenum		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores	1	133	100						
Bipolaris*									
Chaetomium sp.							1	133	25
Cladosporium sp.				1	133	25			
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments							1	133	25
Nigrospora sp.									
Penicillium/Asp.*				2	267	50			
Pithomyces									
Rusts									
Smuts*				1	133	25			
Stachybotrys sp.							2	267	50
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	1	133	100	4	533	100	4	533	100
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNIC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

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Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No. : 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A19			11-943-A20			11-943-A21		
Lab Sample ID	120211-01-19			120211-01-20			120211-01-21		
Location:	Classroom P-2/Center of Rm.			Classroom P-2/S Panel#1			Classroom P-2/S Panel#2		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores									
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments	1	133	25						
Nigrospora sp.									
Penicillium/Asp.*	2	267	50	2	267	100			
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.	1	133	25						
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	4	533	100	2	267	100	NSD	NSD	
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomycetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

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Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No. : 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A22			11-943-A23			11-943-A24		
Lab Sample ID	120211-01-22			120211-01-23			120211-01-24		
Location:	Classroom P-2/S Panel#3			Classroom P-2/S Panel#4			Classroom P-2/S Panel#5		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores	1	133	100	1	133	33	1	133	100
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments									
Nigrospora sp.									
Penicillium/Asp.*				2	267	67			
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	1	133	100	3	400	100	1	133	100
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

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Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No.: 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A25			11-943-A26			11-943-A27		
Lab Sample ID	120211-01-25			120211-01-26			120211-01-27		
Location:	Classroom P-2/S Panel#6			Classroom P-1/W Panel#1			Classroom P-1/W Panel#2		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores									
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments									
Nigrospora sp.									
Penicillium/Asp.*									
Pithomyces									
Rusts									
Smuts*				1	133	100			
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other	1	133	100						
Unknown									
Total Fungal Stuct	1	133	100	1	133	100	NSD	NSD	
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

Batch No: 120211-01



Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No. : 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A28			11-943-A29			11-943-A30		
Lab Sample ID	120211-01-28			120211-01-29			120211-01-30		
Location:	Classroom P-2/W Panel#3			Classroom P-2/W Panel#4			Classroom P-2/W Panel#5		
Volume	30			30			30		
Analytical Sens. :	133			133			133		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores	2	267	100						
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.									
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments									
Nigrospora sp.									
Penicillium/Asp.*									
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	2	267	100	NSD	NSD		NSD	NSD	
Pollen									
Skin Fragments									
Level of debris	Moderate			Low			Moderate		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

Batch No: 120211-01



Analytical Mold Report - Fungal Spores Identification Method ECOS - 001

Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No. : 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A31			11-943-A32			11-943-A33		
Lab Sample ID	120211-01-31			120211-01-32			120211-01-33		
Location:	Classroom P-2/W Panel#6			Classroom P-2/Plenum			Exterior /Covered Walkway		
Volume	30			75			75		
Analytical Sens. :	133			53			53		
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%
Ascospores									
Basidiospores							1	53	20
Bipolaris*									
Chaetomium sp.									
Cladosporium sp.							4	213	80
Epicoccum sp.									
Fusarium sp.									
Ganoderma sp.									
Hyphae Fragments									
Nigrospora sp.									
Penicillium/Asp.*									
Pithomyces									
Rusts									
Smuts*									
Stachybotrys sp.									
Stemphylium sp.									
Ulocladium sp.									
Other									
Unknown									
Total Fungal Struct	NSD	NSD		NSD	NSD		5	267	100
Pollen									
Skin Fragments									
Level of debris	Moderate			Moderate			Low		

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

AIR MONITORING SHEET



Client:SAU 15

Date: December 1, 2011 12:00 AM

The Scott Lawson Group, Ltd.
Environmental, Health & Safety Consultants

Job #:11-943

Sample/Pump # 1243	Time On	Time Off	Name/Area	Description (please circle)			
11-943-A01	5 Min		Classroom P-1 Center of Classroom	Area/ Background	Control	Outdoor	Blank
				Windows Open	Windows Closed	Occupied	non- occupied
11-943-A02	2-Min		Classroom P-1 Wall Cavity East Wall, Panel #1	Area/ Background	Control	Outdoor	Blank
				Windows Open	Windows Closed	Occupied	non- occupied
11-943-A03	2-Min		Classroom P-1 Wall Cavity East Wall, Panel #2	Area/ Background	Control	Outdoor	Blank
				Windows Open	Windows Closed	Occupied	non- occupied
11-943-A04	2-Min		Classroom P-1 Wall Cavity East Wall, Panel #3	Area/ Background	Control	Outdoor	Blank
				Windows Open	Windows Closed	Occupied	non- occupied
11-943-A05	2-Min		Classroom P-1	Area/ Background	Control	Outdoor	Blank
			Wall Cavity East Wall, Panel #4	Windows Open	Windows Closed	Occupied	non- occupied
11-943-A06	2-Min		Classroom P-1	Area/ Background	Control	Outdoor	Blank
			Wall Cavity East Wall, Panel #5	Windows Open	Windows Closed	Occupied	non- occupied
11-943-A07	2-Min		Classroom P-1 Wall Cavity East Wall, Panel #6	Area/ Background	Control	Outdoor	Blank
				Windows Open	Windows Closed	Occupied	non- occupied

S A M G

Notes:

AIR MONITORING SHEET

Client: SAU 15

Date: December 1, 2011 12:00 AM



The Scott Lawson Group, Ltd.
Environmental, Health & Safety Consultants

Job #: 11-943

Sample/Pump # 1243	Time On	Time Off	Name/Area	Description (please circle)			
11-943-A08	2 Min		Classroom P-1 Wall Cavity South Wall, Panel #1	Area/ Background	Control	Outdoor	Blank
				Windows Open	<i>Windows Closed</i>	Occupied	<i>non- occupied</i>
11-943-A09	2 Min		Classroom P-1	Area/ Background	Control	Outdoor	Blank
			Wall Cavity South Wall, Panel #2	Windows Open	Windows Closed	Occupied	non- occupied
11-943-A10	2 Min		Classroom P-1 Wall Cavity South Wall, Panel #3	Area/ Background	Control	Outdoor	Blank
				Windows Open	Windows Closed	Occupied	non- occupied
11-943-A11	2 Min		Classroom P-1	Area/ Background	Control	Outdoor	Blank
			Wall Cavity South Wall, Panel #4	Windows Open	Windows Closed	Occupied	non- occupied
11-943-A12	2 Min		Classroom P-1	Area/ Background	Control	Outdoor	Blank
			Wall Cavity South Wall, Panel #5	Windows Open	Windows Closed	Occupied	non- occupied
11-943-A13	2 Min		Classroom P-1	Area/ Background	Control	Outdoor	Blank
			Wall Cavity South Wall, Panel #6	Windows Open	Windows Closed	Occupied	non- occupied
11-943-A14	2 Min		Classroom P-1 Wall Cavity Dividing Wall, Panel #1	Area/ Background	Control	Outdoor	Blank
				Windows Open	Windows Closed	Occupied	non- occupied

Notes:

Ph: 978-609-5129 www.ecosenviro.com simona.holacsek@ecosenviro.com

Batch No: 120211-01

Analytical Mold Report - Fungal Spores Identification Method ECOS - 001



Contact: The Scott Lawson Group	Date Collected: 12-01-11
Co. Address: 20 Chenell Dr., Concord, NH 03301	Date Received: 12-02-11
Project Name/No.: 11-943	Date Analyzed: 12-02-11

Field Sample ID	11-943-A34						
Lab Sample ID	120211-01-34						
Location:	Blank						
Volume	0						
Analytical Sens. :	N/A						
Spores ID	Raw Counts	Sp./m ³	%	Raw Counts	Sp./m ³	%	Raw Counts
Ascospores							
Basidiospores							
Bipolaris*							
Chaetomium sp.							
Cladosporium sp.							
Epicoccum sp.							
Fusarium sp.							
Ganoderma sp.							
Hyphae Fragments							
Nigrospora sp.							
Penicillium/Asp.*							
Pithomyces							
Rusts							
Smuts*							
Stachybotrys sp.							
Stemphylium sp.							
Ulocladium sp.							
Other							
Unknown							
Total Fungal Struct	NSD	NSD					
Pollen							
Skin Fragments							
Level of debris	Low						

*Group of spores with similar characteristics: Bipolaris/Dreschelaria, Smuts/Periconia/Myxomicetes, Penicillium/Aspergillus. The entire slide was scanned under 1000x. Final results obtained extrapolating the counts for 25% of the slide. The reporting limit is 4 counts/sample. TNTC=Too numerous to count (more than 200 spores counted in less than 10 fields). NSD= No Structures Detected. No blank correction applied. All samples received in acceptable conditions. ECOS assumes no responsibility for potential contamination during sample collection, or erroneous data provided by the client.

Laboratory Analyst : Simona Holacsek

APPENDIX B

ANALYTICAL RESULTS

Tape Lifts



The Scott Lawson Group, Ltd.

Environmental, Health & Safety Consultants

Post Office Box 3304, Concord, NH 03302-3304

(603) 228-3610 / (800) 645-7674 / Fax (603) 228-3871

Client: SAU #15

90 Farmer Road

Hooksett, NH 03106

SLGL Job #: 11-943

Client Project: Auburn Village School

Report Date: December 2, 2011

Date Sampled: December 1, 2011

Date Received: December 2, 2011

Collected by: SRM

Analyzed by: NEF

Analytical Results

Lab Number:	293986	293987	293988
Sample Identification:	11-943-TL01, Classroom P-1, bathroom ceiling plenum, white stain on roof deck around vent penetration	11-943-TL02, Classroom P-1, bathroom ceiling plenum, black stain on roof deck around vent penetration	11-943-TL03, Classroom P-2, black stain on wall stud - n. wall
Analysis:	Fungi Identification - Direct Examination	Fungi Identification - Direct Examination	Fungi Identification - Direct Examination
Methodology:	SLGL-3011	SLGL-3011	SLGL-3011
Sample Media:	Tape	Tape	Tape
Date Analyzed:	December 2, 2011	December 2, 2011	December 2, 2011

Mold/Fungi Type	Concentration	Concentration	Concentration
<i>Acremonium</i>	* Loaded		
<i>Alternaria</i>			
Ascospores			
<i>Aspergillus/Penicillium</i> -like	Numerous	Sparse	
<i>Aureobasidium</i>			
Basidiospores	Sparse	Sparse	
<i>Bipolaris/Drechslera</i> -like			
<i>Chaetomium</i>			
<i>Cladosporium</i>		*Loaded	*Loaded
<i>Curvularia</i>			
<i>Epicoccum</i>			
<i>Fusarium</i>			
<i>Geotrichum</i>			
<i>Mucor</i>			
<i>Myxomycetes/Periconia/</i> smuts			
<i>Nigrospora</i>			
<i>Oidium/Erysiphe/Peronospora</i>			
<i>Phoma</i>			
<i>Pithomyces</i>			
<i>Rhizopus</i>			
<i>Stachybotrys</i>		Sparse	
<i>Stemphylium</i>			
<i>Torula</i>			
<i>Trichoderma</i>			
<i>Ulocladium</i>			
unknown			
hyphal fragments	Loaded	Loaded	Loaded
<i>Penicillium</i>	*Sparse		
Comments:			

- Sparse: Few spores are present
- Numerous: Many spores are present
- Loaded: Represents a high population of spores
- †: Overloaded with too much debris, results could not be determined.
- *: Contains hyphae and/or reproductive structures associated with the spores and indicates evidence of fungal growth
- ** : Tape lift taken from a bulk sample

Reviewed by: Helen M Enzer

Approved By: Norman Fletcher
Norman Fletcher, Lab Manager



The Scott Lawson Group, Ltd.

Environmental, Health & Safety Consultants

Post Office Box 3304, Concord, NH 03302-3304

(603) 228-3610 / (800) 645-7674 / Fax (603) 228-3871

Client: SAU #15

90 Farmer Road

Hooksett, NH 03106

SLGL Job #: 11-943

Client Project: Auburn Village School

Report Date: December 2, 2011

Date Sampled: December 1, 2011

Date Received: December 2, 2011

Collected by: SRM

Analyzed by: NEF

Analytical Results

Lab Number:	293989	293990
Sample Identification:	11-943-TL04, Exterior, black staining on siding	11-943-TL05, Exterior, covered walkway, staining on pressure treated wood
Analysis:	Fungi Identification - Direct Examination	Fungi Identification - Direct Examination
Methodology:	SLGL-3011	SLGL-3011
Sample Media:	Tape	Tape
Date Analyzed:	December 2, 2011	December 2, 2011

Mold/Fungi Type	Concentration	Concentration
<i>Acremonium</i>		
<i>Alternaria</i>	Sparse	
Ascospores		
<i>Aspergillus/Penicillium</i> -like		
<i>Aureobasidium</i>		
Basidiospores	Sparse	Sparse
<i>Bipolaris/Drechslera</i> -like		
<i>Chaetomium</i>		
<i>Cladosporium</i>	*Loaded	*Loaded
<i>Curvularia</i>		
<i>Epicoccum</i>		
<i>Fusarium</i>		
<i>Geotrichum</i>		
<i>Mucor</i>		
Myxomycetes/ <i>Periconia</i> / smuts		
<i>Nigrospora</i>		
<i>Oidium/Erysiphe/Peronospora</i>		
<i>Phoma</i>		
<i>Pithomyces</i>		
<i>Rhizopus</i>		
<i>Stachybotrys</i>		
<i>Stemphylium</i>		
<i>Torula</i>		
<i>Trichoderma</i>		
<i>Ulocladium</i>		
unknown		
hyphal fragments	Loaded	Loaded
Comments:		

Sparse: Few spores are present
Numerous: Many spores are present
Loaded: Represents a high population of spores
+: Overloaded with too much debris, results could not be determined.
*: Contains hyphae and/or reproductive structures associated with the spores and indicates evidence of fungal growth
**: Tape lift taken from a bulk sample

Reviewed by: Helen M. Enzler

Approved By: Norman Fletcher
Norman Fletcher, Lab Manager



The Scott Lawson Group, Ltd.
Environmental, Health & Safety Consultants

20 Chenell Drive
Concord, New Hampshire 03301
Ph: (603) 228-3610, Fax: (603) 228-3871
www.sfgl.com email: Lab@sfgl.com

Submitting Co.: SAU 15

SEC# 100# 11-543

Client Project: Pocke-beds) Testing

Client PO:

Turnaround Time (select one)
 3 hours* 6-8 hours* 24 hours* 48 hours* 72 hours*
 5 days 10 days Weekend Other: _____

Attention:

Sampled By: SN

Phone:

email:

Fax:

Not available for all tests. Schedule rush and weekend tests in advance.

- Sample Matrix Type (select one)
- Air
 - Bulk
 - Aqueous
 - Oil
 - Agar (biostrip)
 - Paint
 - Agar (plate)
 - Sludge
 - Tape Lift
 - Soil
 - Solid
 - Wipe
 - Wipe composite
 - Other: _____

Comments:

All samples on this form should be of the SAME matrix type. Use additional forms as needed.

Samples received in good condition? Yes No

SLGL Lab #	Sample Identification	Analysis	Date Sampled	Time	Media/ Container	Preservative	4°C	Swab/Wipe Area Units:	Air Volume (L)	Minutes
987	11-1044-PL01	Fungal CF + FD	12/1		Tap				N/A	N/A
988	PL02									
989	PL03									
990	PL04									
	PL05									

Sample Collection and Custody Information

Samples Shipped Via: FedEx UPS DHL US Mail Drop Box Drop Off Other

Relinquished By:

Date/Time: 12-2-11 0730

Received By: Helen M. Enzler

Date/Time: 12/2/11 0855

Relinquished By:

Date/Time:

Received By:

Date/Time:

A Note to Customer: by signing and relinquishing your samples to the laboratory, you agree with the terms and conditions found on the back of this Chain of Custody Form.