



# 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: Baseline Indoor Air Quality Survey – Auburn Village School  
SLGL File Number 11-1044

Dear Mr. Barbuto:

## EXECUTIVE SUMMARY

On November 15, 2011, at the request of School Administrative Unit No. 15 (SAU 15), *The Scott Lawson Group, Ltd. (SLGL)* conducted an Indoor Air Quality (IAQ) Survey at the Auburn Village School located at 11 Eaton Road in Auburn, New Hampshire. Specifically, this IAQ Survey focused on preselected areas of the school, to establish baseline information to be utilized to help evaluate occupant complaints. On December 1 and 2, 2011, *SLGL* returned to repeat or perform additional sampling in several areas to address specific occupant complaints reported to *SLGL* following the initial round of sampling. The survey and inspections associated with this project are part of SAU 15's on-going review of facility issues that may impact indoor air quality. The sampling in representative areas of the school, will help the SAU better understand the current status of air quality in the building, by providing baseline information that identifies potential and existing problems areas.

*SLGL* collected ambient air samples for airborne fungal spores in each of the selected areas, with analytical blanks and outdoor air samples collected for quality control purposes. To help evaluate indoor air quality, direct-reading instruments were used to collect spot readings for Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), temperature, and Relative Humidity (RH). In addition, samples of settled dust were analyzed for the presence of fungal spores and allergens. The analytical results and data are discussed further in this report, followed by our conclusion and recommendations. On the day of the survey(s), there were no signs of microbial growth, and there were no areas of visible water damage present, in the monitored areas.

In brief, the testing indicates there is generally insufficient ventilation in the tested locations for the number of occupants in the building. Under ventilation can contribute to poor IAQ, and allow the build-up of potential contaminants such as mold in indoor spaces. The following summarizes the Survey, results, and recommendation(s).

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## DISCUSSION

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The indoor environment in any building is a result of the interaction between the site, building construction, contaminant sources and activities within and outside the building and occupants. *SLGL* visited the Auburn Village School on November 15, 2011, to conduct the initial IAQ Survey, look for potential IAQ problem indicators, talk with staff, and establish baselines for IAQ in the building.

Values for analytical test data reported in this IAQ Survey were compared to one or more of the following: the Occupational Safety and Health Administration's Permissible Exposure Limits (OSHA PEL), the National Institute for Occupational Safety and Health's Recommended Exposure Limits (NIOSH REL), the American Conference of Governmental Industrial Hygienists' Threshold Limit Values (ACGIH TLV) and/or the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE). Public health guidelines for exposure to contaminants such as those published by ASHRAE, and the World Health Organization (WHO), are typically less than occupational exposure limits, e.g., OSHA, ACGIH, and NIOSH. Public health guidelines or standards include protection for the old, young, pregnant women, and other sensitive population groups.

OSHA limits are those to be used for compliance or regulatory efforts. Most of the other exposure limits or guidelines are just that: guidelines and recommendations. The science of indoor air quality is a dynamic one and there are no clear regulations for air quality in commercial or institutional buildings as opposed to industrial facilities. There is a distinct difference between the two environments and, therefore, most of our data is compared to all of the regulatory levels as well as guidelines, currently in place.

All occupied buildings require a supply of outdoor air. Depending on outdoor conditions, the air is heated or cooled and filtered before it is distributed into the building. As outdoor air is introduced to the building, contaminated indoor air is exhausted. Newer Heating, Ventilating, and Air Conditioning (HVAC) systems provide heating, cooling, filtering, and humidity control to maintain occupant comfort.

The following sections further summarize the analytical results obtained during the survey at Auburn Village School.

### *Air Samples - Total Spore Counts with Predominant Genus Identification:*

Indoor air sampling for airborne mold spores was conducted to help evaluate occupant complaints, and to establish baseline information when future sampling is conducted. Fungus spores are found in ambient air most times of the year, from spring through fall, with numbers declining in the winter months. The term “genus” refers to the particular “family” of Fungi, and there are individual species within each genus. All Fungi are considered to be potentially allergenic.

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.) Each sample was collected by drawing air through an Air-O-Cell® sampling cassette at a flow rate of approximately fifteen liters per minute for five minutes. Sampling equipment was calibrated prior to and following sampling. Upon completion of each sample, the cassette was sealed, issued a unique sample identification number, and its location documented.

On November 15, 2011, sixteen (16) samples were collected inside preselected areas at the Auburn Village School, airborne spore levels ranged from 107 to 2,293 spores per cubic meter of air (107 to 2,293 Ct/m<sup>3</sup>). Outdoor air samples showed a total ambient fungal spore concentration from 6,827 to 10,133 Ct/m<sup>3</sup>. Areas were selected by facility staff, based upon occupant concerns, with carpeted and non-carpeted areas being monitored. As requested on December 1 and 2, 2011, *SLGL* returned to monitor additional areas that staff had expressed concerns with air quality. The specific results from the testing are shown in the following tables.

### *Carbon dioxide:*

Studies indicate that CO<sub>2</sub> is an excellent surrogate indicator of indoor air quality. Since CO<sub>2</sub> is given off by humans when exhaling, its levels in the air provide a good indication of the quality of air circulation and how effectively the ventilation system, if present, is diluting and removing pollutants from the air. It must be noted that it is (generally) not necessarily the concentration of CO<sub>2</sub> itself that is of concern in this type of setting, but rather it is the levels of CO<sub>2</sub> exceeding 1,000 parts per million (1,000 ppm), which are indicative of inadequate fresh/outdoor air introduction -- or under-ventilation.

All of the the areas monitored exceeded the upper recommended level for occupant comfort of 1,000 ppm for CO<sub>2</sub>. Ventilation is most commonly used to control or prevent indoor air problems. It appears that most of areas are under-ventilated, due to the HVAC units being off, and/or running at ineffective times. *SLGL* recommends retesting in the areas with the air handling systems operating as designed with filters designed to remove spores and other contaminants. Again the results from the testing are shown in the following tables.

**TABLE I - Auburn Village School-November 15, 2011**

Sample Location	Total fungal Spore Count (Count/m <sup>3</sup> )	Predominant Genus(s)	CO <sub>2</sub> (PPM)	Meets guideline Level of 1,000 PPM (Y/N)	HVAC Unit
P-5	2,293	<i>Aspergillus/Penicillium</i> -like (1,120) Basidiospores (533)	1,512	N	Automatic, minimal fresh make up air
P-3	1,653	Basidiospores (533) Hyphal Fragments (373)	1,510	N	Automatic, minimal fresh make up air
M-2	800	<i>Aspergillus/Penicillium</i> -like (320) Basidiospores (213)	1,608	N	Automatic w/ Exhaust Fan (Fan Off)
M-1	587	<i>Aspergillus/Penicillium</i> -like (320) Basidiospores (107) <i>Cladosporium</i> (107)	1,590	N	Automatic w/ Exhaust Fan (Fan Off)
100	907	Hyphal Fragments (373) <i>Aspergillus/Penicillium</i> -like (267)	1,704	N	Runs before and after school hours
101	1,707	Basidiospores (480) <i>Cladosporium</i> (373)	1,911	N	Runs before and after school hours
Special Ed Office	747	Basidiospores (213) <i>Cladosporium</i> (213)	1,704	N	Automatic, minimal fresh make up air
Main Office	107	Hyphal Fragments (53) Myxomycetes/ <i>Periconia</i> /Smuts (53)	1,143	N	Shut Off
Library	587	Basidiospores (373) Hyphal Fragments (160)	1,412	N	Shut Off
122	533	Myxomycetes/ <i>Periconia</i> /Smuts (213) Basidiospores (107)	1,400	N	Shut Off
126	1,440	Basidiospores (587) <i>Aspergillus/Penicillium</i> -like (267)	1,442	N	Shut Off
128	107	Basidiospores (53) <i>Chaetomium</i> (53)	1,488	N	Shut Off
121	267	Myxomycetes/ <i>Periconia</i> /Smuts (107) <i>Aspergillus/Penicillium</i> -like (53)	1,390	N	Shut Off
211	213	Myxomycetes/ <i>Periconia</i> /Smuts (107) Basidiospores (53)	1,398	N	Runs before and after school hours

Sample Location	Total fungal Spore Count (Count/m <sup>3</sup> )	Predominant Genus(s)	CO <sub>2</sub> (PPM)	Meets guideline Level of 1,000 PPM (Y/N)	HVAC Unit
205	320	Myxomycetes/ <i>Periconia</i> /Smuts (107) Ascospores (107)	1,415	N	Runs before and after school hours
201 (One Window Open)	1,227	Basidiospores (533) Myxomycetes/ <i>Periconia</i> /Smuts (213)	1,056	N	Automatic
Exterior-Main Entrance	10,133	Basidiospores (7,680) Ascospores (907) Myxomycetes/ <i>Periconia</i> /Smuts (693) <i>Cladosporium</i> (373) <i>Aspergillus/Penicillium</i> -like (320)	390	N/A	N/A
Exterior, Between Portables and Playground	6,827	Basidiospores (5,333) Ascospores (853) <i>Aspergillus/Penicillium</i> -like (427)	390	N/A	N/A

TABLE II - Auburn Village School-December 1 and 2, 2011

Sample Location	Total fungal Spore Count (Count/m <sup>3</sup> )	Predominant Genus(s)	CO <sub>2</sub> (PPM)	Below Recomm'd Level of 1,000 PPM (Y/N)	HVAC Unit
103	320	Basidiospores (160)	1,720	N	Radiators-No Makeup air
100	747	<i>Cladosporium</i> (213) Basidiospores (107)	1,580	N	Runs before and after school hours
Corridor outside Room 100	427	Basidiospores (107) Hyphal Fragments (107)	1,313	N	Manual
104	373	<i>Aspergillus/Penicillium</i> -like (107) <i>Cladosporium</i> (107)	1,290	N	Runs before and after school hours
Corridor outside Nurse	747	<i>Aspergillus/Penicillium</i> -like (107) <i>Cladosporium</i> (107)	1,255	N	Manual
Library Computer Area	907	Hyphal Fragments (213) <i>Aspergillus/Penicillium</i> -like (160)	1,905	N	Teacher Controlled

Sample Location	Total fungal Spore Count (Count/m <sup>3</sup> )	Predominant Genus(s)	CO <sub>2</sub> (PPM)	Below Recomm'd Level of 1,000 PPM (Y/N)	HVAC Unit
Library Reading Area	1,653	<i>Aspergillus/Penicillium</i> -like (480) Basidiospores (427)	1,985	N	Teacher Controlled
120	1,173	<i>Aspergillus/Penicillium</i> -like (533) Basidiospores (480)	1,301	N	Shut Off
Outside Building	2,773	Basidiospores (2,400) <i>Cladosporium</i> (213)	385	N/A	N/A

### *Classroom M-1*

Followup testing in Classroom M-1 was performed on December 2, 2011, in response to staff complaints of a “musty” odor. During this survey, SLGL collected four (4) samples for the evaluation of total airborne fungal spore concentrations. Further, SLGL collected a dust sample from the carpet to check for potential allergens. Neither the HVAC unit and/or exhaust fan was in operation during the sampling period, however a portable air filter was in use.

As noted in Table III, spore levels in the M-1 were higher than sampling conducted on November 15 (Table I). SLGL observed that the cover to the crawlspace located under classroom M-1 was not secured, allowing odors and air from the crawlspace to enter the room. A sample collected inside the crawlspace showed ambient fungal spore concentrations at greater than (>) 21,013 Ct/m<sup>3</sup>, with *Cladosporium* being the predominant genus detected. Also detected were elevated levels of *Aspergillus/Penicillium* -like fungus, Basidiospores and Myxomycetes/*Periconia*/Smuts. A sample collected at the air intake showed ambient fungal spore concentrations at 1,867 Ct/m<sup>3</sup> with Basidiospores and *Cladosporium* being the predominant genus(s) identified. The sample collected inside classroom M-1 had an ambient fungal spore concentrations of 2,880 Ct/m<sup>3</sup> with Myxomycetes/*Periconia*/Smuts, Basidiospores, *Aspergillus/Penicillium* -like fungus, and *Cladosporium* being identified. Based upon these analytical results SLGL contacted SAU officials and requested that any penetrations to the crawlspace be sealed to help prevent potential contaminants such as mold spores from entering the room from this area.

SLGL believes that based on these observations that a potential source of occupant odor complaints etc., is from the crawlspace, and further investigation and treatment/source control of, is warranted. Other classrooms located over the crawlspace should be reviewed to see if there is similar occupant complaints.

**TABLE III - Auburn Village School-Classroom M-1, December 1, 2011**

Sample Location	Total fungal Spore Count (Count/m <sup>3</sup> )	Predominant Genus(s)	CO <sub>2</sub> (PPM)	Below Recomm'd Level of 1,000 PPM (Y/N)	HVAC Unit
M-1 (Exterior at Air Intake)	1,867	Basidiospores (1,013) <i>Cladosporium</i> (533)	1,910	N	Automatic w/ Exhaust Fan (Fan Off)
Crawlspace under M-1	> 21,013	<i>Cladosporium</i> (13,333) <i>Aspergillus/Penicillium</i> -like (3,253)	N/A	N/A	N/A
M-1 Interior of HVAC Duct (Return)	320	Basidiospores (107) Hyphal Fragments (373)	N/A	N/A	N/A
M-1	2,880	<i>Myxomycetes/Periconial Smuts</i> (1067) Basidiospores (640) <i>Aspergillus/Penicillium</i> -like (480)	1,920	N	Automatic w/ Exhaust Fan (Fan Off)

*Dust Characterization:*

A sample of settled dust was collected from the carpet in classroom M-1 utilizing a High-Efficiency Particulate Air (HEPA) vacuum equipped with a particulate Mitest Dust Collector; the vacuum unit was run until the sampling container was at least half-full. The (visual) Dust Characterization included the analytes listed as follows measured as a percentage of the dry bulk weight of the sample.

Skin Flakes	Fiberglass*
Human Hairs	Quartz
Animal Hairs*	Plant Matter/Trichome*
Arthropod Fragments/Feather*	Fungal Matter*
Wood Chips*	Pollen*
Cellulose Fibers	Carbonaceous Particles

Based on indoor environment studies, it is recommended that several of the dust components listed above should not exceed 1% as indicated by an asterisk. This is a guideline, not a regulatory limit, based on studies by the U.S. Public Health Service, Division of Federal Employee Health, Region III.

The Dust Characterization conducted during the survey represents the most common components typically found in indoor/office (non-industrial) environments. Dust composition is generally attributable to three (3) sources:

1. Fibers and particles brought into the building; i.e., wood chips, skin flakes, animal hairs, and human hair;
2. Fibers and particles associated with building materials; i.e., cellulose fibers, synthetic fibers, foam particles, fiberglass, and glue; and,
3. Organically produced particles; i.e., dust mite feces, Fungi.

Based on indoor environment studies noted above, it is recommended that several of the dust components (as indicated by an \*) should not exceed 1% of the overall dust composition. The primary components in the samples appeared to be Cellulose fibers (typically associated with paper), skin cells, and Quartz (sand). Concentrations of plant matter should be reduced (if feasible) to enhance employee comfort.

**A dust sample collected from the Library is being further analyzed as an allergen screen that will be included as an addendum to this report when the data is received.**

#### *Relative Humidity and Temperature:*

For an environment in which occupants are engaged in light, primarily sedentary activity, the most recent ANSI/ASHRAE standard recommends that RH be controlled to a range of thirty to sixty percent (30% to 60%). These are the upper and lower limits based on considerations of dry skin, eye irritation, respiratory health, microbial growth, and moisture-related phenomena.

The ANSI/ASHRAE standard ventilation recommends that an optimum winter operative temperature of 71°F be maintained during the winter months, with a comfort range of 68 degrees Fahrenheit (68°F) to 75°F. During the summer, it is recommended that an optimum operative temperature of 76°F be maintained, with a comfort range of 73°F to 79°F. The temperature should be set toward the lower end in the winter when people wear heavier clothing, and toward the upper end in the summer when people wear lighter clothing. (Measurements were made using a TSI Q-TRAK, a direct-reading instrument.)

- Ambient room temperatures measured 68°F to 73°F, with an RH of 28%-35%.



*Carbon monoxide:*

CO is not a natural component of indoor air, and is considered an indoor air pollutant. Overexposure to CO can deprive the body of Oxygen-carrying hemoglobin, and cause immediate or chronic health effects to those individuals exposed to elevated levels.

No CO was detected in any of the sampled areas. These levels are below the OSHA PEL of 50 ppm, as well as within the ACGIH TLV of 25 ppm and the NIOSH REL of 35 ppm. WHO uses 9 ppm as a "concentration of concern" and notes that indoor concentrations of CO should not exceed those found outdoors by more than 3 ppm.

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## CONCLUSION

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The baseline IAQ Survey at Auburn Village School has been completed, followup testing is ongoing and will be reported as information and analytical data is available.

The Auburn Village School generally relies on natural ventilation, exhaust fans or very limited fresh make up air, which is often poorly distributed. Based on conversations with staff, the air exhaust fans and HVAC units rarely operate during school hours because of the noise and drafts generated causing discomfort to them. *SLGL* also recommends that occupancy levels, room function (meetings, break, occupied all of the time, overcrowding) be reviewed and compared to amount of fresh air being introduced into the areas. The ASHRAE Standard for Ventilation, which is generally referred to for guidance, generally recommends that fresh air be introduced at a rate of 20 cubic feet per person. This rate generally ensures the dilution of potential indoor air contaminants. Spot readings were collected throughout the area using a TSI Q-Trak IAQ monitor. CO<sub>2</sub> levels in the school ranged from approximately 1,056 parts per million (ppm) to 1,910 ppm, indicating not enough fresh air is being introduced in to the areas. No levels of CO were detected and ambient room temperatures and RH were within recommended comfort ranges.

Air sampling results indicate that fungal spore concentrations in the selected areas are generally low in concentration, and do not represent a significant or recognized concern to building occupants. However in portables P-3 & P-5 spore counts were higher than modular units with similar occupancy and use. P-5 also had *Aspergillus/Penicillium*-like fungus, noted as the predominant genus of fungus identified with predominant genus of fungus identified outdoors as Basidiospores, a common "mold" spore. *Aspergillus/Penicillium*-like fungus may indicate the presence of decaying or water damaged building materials, and further investigations of these and similar units are warranted. Exposure to mold spores can affect building occupants differently, depending on the type of mold, how much time they spend in the area, persons susceptibility, and pre-existing health problems. Occupants with symptoms of mold allergies should be removed from the area.

Based upon these preliminary baseline tests, it appears that most of the IAQ complaints can be reduced by utilizing current systems as designed in increased ventilation rates as feasible.

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### RECOMMENDATION

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1. In accordance with Federal and State of New Hampshire rules, provide employees with access to exposure monitoring data and the requisite recordkeeping performed.
2. Map out air handling units and retest in the areas with the air handling systems fully operating to determine if they are adequate for controlling odors and potential contaminants. It will be necessary to measure fresh air introduction rates in each of the air handling zones and compare to occupancy levels. It will be critical when retesting is done to have facility managers and management involved to help identify additional problem areas and prioritize budgets for maintenance and future air handling modifications.

Thank you for utilizing the services of *The Scott Lawson Group, Ltd.* We enjoyed working with you and welcome the opportunity to work with you on future projects. We trust that you will find everything in order; however, should you have any questions or comments, please feel free to contact me at your earliest convenience.

Sincerely,

*The Scott Lawson Group, Ltd.*



Stephen McPherson  
Senior Safety & Health Professional  
Member Indoor Air Quality Association (#17501)  
Associated 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 A1**

**ANALYTICAL RESULTS**

**November 15, 2001**



# The Scott Lawson Group, Ltd.

Environmental, Health & Safety Consultants

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Client: SAU #15

90 Farmer Road

Hooksett, NH 03106

SLGL Job #: 11-1044

Client Project: Auburn Village School

Report Date: November 17, 2011

Date Sampled: November 15, 2011

Date Received: November 16, 2011

Collected by: SRM

Analyzed by: NEF, #01040036



## Analytical Results

Lab Number:	293669	293670	293671
Sample Identification:	111511-1044-A01, Area, background, portable classroom, P-5 (carpet)	111511-1044-A02, Area, background, portable classroom, P-3 (carpet)	111511-1044-A03, Area, background, classroom, M-2 (carpet)
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	3	2
Air Volume (L):	75.0	75.0	75.0
Minutes:	5	5	5
Date Analyzed:	November 17, 2011	November 17, 2011	November 17, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>						
Ascospores	2	107			1	53
** <i>Aspergillus/Penicillium</i> - like	21	1,120	6	320	4	213
Basidiospores	10	533	10	533	6	320
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>						
<i>Chaetomium</i>						
<i>Cladosporium</i>	3	160				
<i>Curvularia</i>						
<i>Epicoccum</i>						
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts	5	267	4	213	2	107
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>			2	107		
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/unidentified			2	107		
hyphal fragments	2	107	7	373	2	107
Total fungal spores and fragments:	43	2,293	31	1,653	15	800
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: 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 *Paeicomyces*) 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:

*Helen M. Egan*

Approved By:

*Norman Fletcher*

Norman Fletcher, Lab Manager



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SLGL Job #: 11-1044  
 Client Project: Auburn Village School  
 Report Date: November 17, 2011  
 Date Sampled: November 15, 2011  
 Date Received: November 16, 2011  
 Collected by: SRM  
 Analyzed by: NEF, #01040036



Analytical Results

Lab Number:	293672	293673	293674
Sample Identification:	111511-1044-A04, Area, background, classroom, M-1 (carpet)	111511-1044-A05, Area, background, classroom #100 (VCT)	111511-1044-A06, Area, background, #101 (VCT)
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	3	3
Air Volume (L):	75.0	75.0	75.0
Minutes:	5	5	5
Date Analyzed:	November 16, 2011	November 16, 2011	November 16, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
Alternaria						
Asco spores						
**Aspergillus/Penicillium-like	6	320	5	267	5	267
Basidiospores	2	107	2	107	9	480
Bipolaris/Drechlera-like						
Botrytis						
Chaetomium						
Cladosporium	2	107			7	373
Curvularia					1	53
Epicoccum						
Fusarium						
Myxomycetes/Periconia /smuts			3	160	6	320
Nigrospora						
Oidium/Erysiphe/Peronospora						
Phoma						
Pithomyces	1	53			1	53
rusts						
Spegazzinia						
Stachybotrys						
Stemphylium						
Torula			1	53		
Ulocladium						
unknown/unidentified						
hyphal fragments			6	320	3	160
Total fungal spores and fragments:	11	587	17	907	32	1,707
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than  
 >: Greater Than

Count/m<sup>3</sup>: 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: Heidi Egan

Approved By: Norman Fletcher  
 Norman Fletcher, Lab Manager



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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 #: 11-1044

Client Project: Auburn Village School

Report Date: November 17, 2011

Date Sampled: November 15, 2011

Date Received: November 16, 2011

Collected by: SRM

Analyzed by: NEF, #01040036



## Analytical Results

Lab Number:	293675	293676	293677
Sample Identification:	111511-1044-A07, Area, background, Special Ed Office (carpet)	111511-1044-A08, Area, background, Main Office (carpet)	111511-1044-A09, Area, background, Library, (carpet)
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	3
Air Volume (L):	75.0	75.0	75.0
Minutes:	5	5	5
Date Analyzed:	November 16, 2011	November 16, 2011	November 16, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>	1	53				
Ascospores						
** <i>Aspergillus/Penicillium</i> - like	1	53			1	53
Basidiospores	4	213			7	373
<i>Bipolaris/Drechslera</i> -like	1	53				
<i>Botrytis</i>						
<i>Chaetomium</i>	1	53				
<i>Cladosporium</i>	4	213				
<i>Curvularia</i>						
<i>Epicoccum</i>						
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts			1	53		
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>						
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/unidentified						
hyphal fragments	2	107	1	53	3	160
Total fungal spores and fragments:	14	747	2	107	11	587
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

< Less Than

> Greater Than

Count/m<sup>3</sup>: 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 *Paeclomyces*) 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:

*Helene Erze*

Approved By:

*Norm E. 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 #: 11-1044

Client Project: Auburn Village School

Report Date: November 17, 2011

Date Sampled: November 15, 2011

Date Received: November 16, 2011

Collected by: SRM

Analyzed by: NEF, #01040036



## Analytical Results

Lab Number:	293678	293679	293680
<b>Sample Identification:</b>	111511-1044-A10, Area, background, classroom 122 (VCT)	111511-1044-A11, Area, background, classroom 126 (VCT)	111511-1044-A12, Area, background, 128 (VCT)
<b>Analysis:</b>	Fungi Enumeration & Identification - Direct Examination	Fungi Enumeration & Identification - Direct Examination	Fungi Enumeration & Identification - Direct Examination
<b>Methodology:</b>	SLGL-3067	SLGL-3067	SLGL-3067
<b>Sample Media:</b>	Air-O-Cell	Air-O-Cell	Air-O-Cell
<b>Debris Rating:</b>	3	2	2
<b>Air Volume (L):</b>	75.0	75.0	75.0
<b>Minutes:</b>	5	5	5
<b>Date Analyzed:</b>	November 17, 2011	November 17, 2011	November 17, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>						
Ascospores	2	107				
** <i>Aspergillus/Penicillium</i> -like	1	53	5	267		
Basidiospores	2	107	11	587	1	53
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>						
<i>Chaetomium</i>	1	53	1	53		
<i>Cladosporium</i>			3	160	1	53
<i>Curvularia</i>						
<i>Epicoccum</i>						
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts	4	213	3	160		
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>						
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/unidentified			1	53		
hyphal fragments			3	160		
Total fungal spores and fragments:	10	533	27	1,440	2	107
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: 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



# 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 #: 11-1044

Client Project: Auburn Village School

Report Date: November 17, 2011

Date Sampled: November 15, 2011

Date Received: November 16, 2011

Collected by: SRM

Analyzed by: NEF, #01040036



## Analytical Results

Lab Number:	293681	293682	293683
Sample Identification:	111511-1044-A13, Area, background, 121-Music (VCT)	111511-1044-A14, Area, background, 211 (VCT)	111511-1044-A15, Area, background, 205 (VCT)
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:	November 17, 2011	November 17, 2011	November 17, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>						
Ascospores					2	107
** <i>Aspergillus/Penicillium</i> - like	1	53				
Basidiospores	1	53	1	53		
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>						
<i>Chaetomium</i>						
<i>Cladosporium</i>					1	53
<i>Curvularia</i>						
<i>Epicoccum</i>						
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts	2	107	2	107	2	107
<i>Nigrospora</i>						
<i>Oldium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pitheomyces</i>						
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknowns/identified						
hyphal fragments	1	53	1	53	1	53
Total fungal spores and fragments:	5	267	4	213	6	320
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: 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 *Paeclomyces*) 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





# 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 #: 11-1044

Client Project: Auburn Village School

Report Date: November 17, 2011

Date Sampled: November 15, 2011

Date Received: November 16, 2011

Collected by: SRM

Analyzed by: NEF, #01040036



## Analytical Results

Lab Number:	293684	293685	293686
Sample Identification:	111511-1044-A16, Area, background, 201 (carpet)	111511-1044-A17, Area, background, outdoor, front parking main entrance	111511-1044-A18, Area, background, outdoor, rear between playground and portables
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:	November 17, 2011	November 17, 2011	November 17, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>					1	53
Ascospores			17	907	16	853
** <i>Aspergillus/Penicillium</i> -like	2	107	6	320	8	427
Basidiospores	10	533	144	7,680	100	5,333
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>						
<i>Chaetomium</i>	1	53	1	53		
<i>Cladosporium</i>	2	107	7	373	1	53
<i>Curvularia</i>	2	107				
<i>Epicoccum</i>						
<i>Fusarium</i>						
<i>Myxomycetes/Periconia</i> /smuts	4	213	13	693		
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>	1	53				
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Tarula</i>					1	53
<i>Ulocladium</i>						
unknown/unidentified						
hyphal fragments	1	53	2	107	1	53
Total fungal spores and fragments:	23	1,227	190	10,133	128	6,827
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: 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 *Pneictonyces*) 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



The Scott Lawson Group, Ltd.

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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 #: 11-1044
Client Project: Auburn Village School
Report Date: November 17, 2011

Date Sampled: November 15, 2011
Date Received: November 16, 2011
Collected by: SRM
Analyzed by: NEF, #01040036



Analytical Results

Table with 4 columns: Lab Number, Sample Identification, Analysis, Methodology, Sample Media, Debris Rating, Air Volume (L), Minutes, Date Analyzed.

Main data table with columns: Mold/Fungi Type, Raw Count, Count/m^3, and several empty columns for results.

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: Helen K. Ezler

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.sgl.com email: Lab@sgl.com

Submitting Co.: **SFAUS**

SLGL Job #:

Client Project: **Asheboro Village School**

Address:

Client PO:

Turnaround Time  
(select one)

3 hours\*  6-8 hours\*  24 hours\*  48 hours\*  72 hours\*  
 5 days  10 days  Weekend  Other: \_\_\_\_\_

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

Sample Matrix Type  
(select one)

Air  Bulk  Soil  
 Aqueous  Oil  Solid  
 Agar (biostrip)  Paint  Swab  
 Agar (plate)  Sludge  Tape Lift

Comments:

Water, drinking or waste  
 Wipe  
 Wipe composite  
 Other: \_\_\_\_\_

Sampled By: **Sam E**

email:

Fax:

Phone:

Samples received in good condition?  Yes  No

Additional forms as needed

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

SLGL Lab #	Sample Identification	Analysis	Date Sampled	Time	Media/ Container	Preservative	4°C	Swab/Wipe Area Units:	Air Volume (L)	Minutes
	11571-1044-A01 Fungal CS + IO		11/5	7	A10-0				75	5
	A02								75	5
	A03								75	5
	A04								75	5
	A05								75	5
	A06								75	5
	A07								75	5
	A08								75	5
	A09								75	5
	A10								75	5

Sample Collection and Custody Information

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

Relinquished By: **[Signature]**

Date/Time: 11-10-11 0700

Received By: **[Signature]**

Date/Time: 11/16/11 0800

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.



**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.slg.com email: Lab@slg.com

Submitting Co.: **SARA 15**

SLGL Job #:

Client Project:  
**Andrew Village School**

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: **DMC**

Phone:

email:

Fax:

Sample Matrix Type (select one)  
 Air  Bulk  Soil  Water, drinking or waste  
 Aqueous  Oil  Solid  Wipe  
 Agar (biostrip)  Paint  Swab  Wipe composite  
 Agar (plate)  Sludge  Tape Lift  Other: \_\_\_\_\_

Comments:

Samples received in good condition?  Yes  No

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

SLGL Lab #	Sample Identification	Analysis	Date Sampled	Time	Media/ Container	Preservative	4°C	Swab/Wipe Area Units:	Air Volume (L)	Minutes
	11511-1074-A11	Fungal CT+ID	11/15	11:00	4.00				75	5
	A12								75	5
	A13								75	5
	A14								75	5
	A15								75	5
	A16								75	5
	A17								75	5
	A18								75	5
	A19								75	5

Sample Collection and Custody Information

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

Relinquished By: *[Signature]*

Date/Time: 11-16-11 0700

Received By: *[Signature]*

Date/Time: 11/16/11 0800

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.



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.slg.com email: Lab@slgl.com

Turnaround Time (select one)

3 hours\*  6-8 hours\*  24 hours\*  48 hours\*  72 hours\*  
 5 days  10 days  Weekend  Other: \_\_\_\_\_

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

Sample Matrix Type (select one)

Air  Bulk  Soil  Water, drinking or waste  
 Aqueous  Oil  Solid  Wipe  
 Agar (biostrip)  Paint  Swab  Wipe composite  
 Agar (plate)  Sludge  Tape Lift  Other: \_\_\_\_\_

Submitting Co.: Slag

Client Project: Adm. V. J. P. S. Inc.

Client PO: \_\_\_\_\_

Sampled By: \_\_\_\_\_

email: \_\_\_\_\_

Comments: \_\_\_\_\_

Swab/Wipe Area \_\_\_\_\_

Units: \_\_\_\_\_

4°C \_\_\_\_\_

Preservative \_\_\_\_\_

Media/Container \_\_\_\_\_

Time \_\_\_\_\_

Date Sampled \_\_\_\_\_

Analysis \_\_\_\_\_

Sample Identification \_\_\_\_\_

Slag Lab # \_\_\_\_\_

Minutes \_\_\_\_\_

Air Volume (L) \_\_\_\_\_

Samples received in good condition?  Yes  No

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

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Drop Box  Drop Off  Other \_\_\_\_\_

US Mail  DHL  UPS  FedEx

US Mail  DHL  UPS  FedEx

US Mail  DHL  UPS  FedEx

US Mail  DHL  UPS  FedEx

US Mail  DHL  UPS  FedEx

US Mail  DHL  UPS  FedEx

US Mail  DHL  UPS  FedEx

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.



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.: S&S 15

SLGL Job #:

Client Project: Andrews V. 78 54

Client PO:

Turnaround Time (select one)

3 hours\*  6-8 hours\*  24 hours\*  48 hours\*  72 hours\*  
 5 days  10 days  Weekend  Other: \_\_\_\_\_

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

Sample Matrix Type (select one)

Air  Bulk  Soil  Water, drinking or waste  
 Aqueous  Oil  Solid  Wipe  
 Agar (biostrip)  Paint  Swab  Wipe composite  
 Agar (plate)  Sludge  Tape Lift  Other: \_\_\_\_\_

Comments:

Preservative

Media/Container

Time

Date Sampled

Analysis

SLGL Lab #	Sample Identification	Analysis	Date Sampled	Time	Media/Container	Preservative	4°C	Swab/Wipe Area Units:	Air Volume (L)	Minutes
	A11	1531-074 A11			Agar				75	5
	A12								75	5
	A13								75	5
	A14								75	5
	A15								75	5
	A16								75	5
	A17								75	5
	A18								75	5
	A19								75	5

Samples received in good condition?  Yes  No

Use additional forms as needed.

Use additional forms as needed.

Sample Collection and Custody Information

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

Relinquished By:

Date/Time:

Received By:

Date/Time:

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.

**APPENDIX A2**

**ANALYTICAL RESULTS**

**December 1, 2011**



# 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 #: 11-1044

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, #01040036



## Analytical Results

Lab Number:	293991	293992	293993
Sample Identification:	11-1044-A40, Area, background, Classroom M-1, exterior at air intake	11-1044-A41, Area, background, crawlspace under Classroom M-1	11-1044-A42, Area, background, Classroom M-1, interior of HVAC duct
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:	2	3	3
Air Volume (L):	75.0	75.0	75.0
Minutes:	5	5	5
Date Analyzed:	December 2, 2011	December 2, 2011	December 2, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>						
Ascospores	2	107	1	53	1	53
** <i>Aspergillus/Penicillium</i> - like	2	107	61	3,253		
Basidiospores	19	1,013	51	2,720	2	107
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>			1	53		
<i>Chaetomium</i>			4	213		
<i>Cladosporium</i>	9	480	> 250	> 13,333	1	53
<i>Curvularia</i>						
<i>Epicoccum</i>						
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts			10	533		
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>	2	107				
<i>Phoma</i>						
<i>Pithomyces</i>			2	107		
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/identified			1	53		
hyphal fragments	1	53	13	693	2	107
Total fungal spores and fragments:	35	1,867	> 394	> 21,013	6	320
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: 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 *Paeclomyces*) 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:

*Helen M. Enzu*

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 #: 11-1044

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, #01040036



## Analytical Results

Lab Number:	293994	293995	293996
Sample Identification:	11-1044-A43, Area, background, Classroom M-1, center of room by column	11-1044-A44, Area, background, Classroom 103, center of room	11-1044-A45, Analytical field blank
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	3	1
Air Volume (L):	75.0	75.0	0.0
Minutes:	5	5	0
Date Analyzed:	December 2, 2011	December 2, 2011	December 2, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>						
Ascospores	1	53				
** <i>Aspergillus/Penicillium</i> -like	9	480	1	53		
Basidiospores	12	640	3	160		
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>						
<i>Chaetomium</i>						
<i>Cladosporium</i>	7	373	1	53		
<i>Curvularia</i>						
<i>Epicoccum</i>						
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts	20	1,067	1	53		
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>	1	53				
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/unidentified	1	53				
hyphal fragments	3	160				
Total fungal spores and fragments:	54	2,880	6	320	< 1	----
Limit of Detection:	1	53	1	53	1	----
Comments:					None detected	

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: Count per meter cubed

PAACB: Pan-American Acrobology Certification Board

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

\*\* *Aspergillus* and *Penicillium* spores (and others such as *Paeclomyces*) 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: Helen H. Enzen

Approved By: Norman E. 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.slg.com email: Lab@slg.com

Submitting Co.: SAUIS

SAUIS

Address:

Client Project:

11-1044  
Auburn Village School

Client PO:

Sampled By:

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

Attention:

Sampled By:

SMC

Phone:

Fax:

email:

Sample Matrix Type (select one)

- Air
- Bulk
- Aqueous
- Oil
- Agar (biostrip)
- Paint
- Agar (plate)
- Sludge
- Soil
- Solid
- Swab
- Tape Lift

- Water, drinking or waste
- Wipe
- Wipe composite
- Other: \_\_\_\_\_

Comments:

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

SLGL Lab #	Sample Identification	Analysis	Date Sampled	Time	Media/Container	Preservative	4°C	Swab/Wipe Area Units:	Air Volume (L)	Minutes
293991	10-1044 - A40	Fungal Ct + TD	12/1	7	A40-0 Cell				75	5
9192	A41								75	5
9193	A42								75	5
9194	A43								75	5
9195	A44								75	5
9196	A45								0	0

Sample Collection and Custody Information

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

Relinquished By:

12-2-11 0730

Received By:

Helen M. Enzeli

Date/Time:

12/2/11 940

Relinquished By:

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.

**APPENDIX A3**

**ANALYTICAL RESULTS**

**December 2, 2011**



# 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 #: 11-1044

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:	294050	294051	294052
Sample Identification:	11-1044-A01, Area, background, classroom 100 (VCT)	11-1044-A02, Area, background, corridor outside classroom 100 (VCT)	11-1044-A03, Area, background, classroom 104 (VCT)
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	3	2
Air Volume (L):	75.0	75.0	75.0
Minutes:	5	5	5
Date Analyzed:	December 5, 2011	December 5, 2011	December 5, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>	1	53				
Ascospores						
** <i>Aspergillus/Penicillium</i> - like						
Basidiospores	2	107	3	160	2	107
<i>Bipolaris/Drechslera</i> -like			1	53		
<i>Botrytis</i>						
<i>Chaetomium</i>						
<i>Cladosporium</i>	4	213			2	107
<i>Curvularia</i>	1	53	1	53		
<i>Epicoccum</i>						
<i>Fusarium</i>						
Myxomycetes/ <i>Periconia</i> /smuts	2	107	1	53		
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>	1	53				
rusts						
<i>Spegazzinia</i>						
<i>Stachybotrys</i>						
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/unidentified	1	53				
hyphal fragments	2	107	2	107	3	160
Total fungal spores and fragments:	14	747	8	427	7	373
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: Count per meter cubed

PAACB: Pan-American Acrobiology Certification Board

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

\*\* *Aspergillus* and *Penicillium* spores (and others such as *Paeclomyces*) 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: Helen M Enzen

Approved By: Norman E 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 #: 11-1044

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:	294053	294054	294055
Sample Identification:	11-1044-A04, Area, background, corridor outside nurse's office (carpet)	11-1044-A05, Area, background, library, computer area (carpet)	11-1044-A06, Area, background, library, reading area (carpet)
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	3	3
Air Volume (L):	75.0	75.0	75.0
Minutes:	5	5	5
Date Analyzed:	December 6, 2011	December 6, 2011	December 6, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<i>Alternaria</i>						
Ascospores			2	107		
** <i>Aspergillus/Penicillium</i> -like	5	267	3	160	9	480
Basidiospores	3	160	3	160	8	427
<i>Bipolaris/Drechslera</i> -like						
<i>Botrytis</i>						
<i>Chaetomium</i>						
<i>Cladosporium</i>	1	53	1	53	2	107
<i>Curvularia</i>			1	53		
<i>Epicoccum</i>						
<i>Fusarium</i>						
<i>Myxomycetes/Periconia</i> / smuts	1	53	2	107	7	373
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>					1	53
rusts						
<i>Spegazzhila</i>						
<i>Stachybotrys</i>	1	53				
<i>Stemphylium</i>						
<i>Torula</i>						
<i>Ulocladium</i>						
unknown/unidentified			1	53		
hyphal fragments	3	160	4	213	4	213
Total fungal spores and fragments:	14	747	17	907	31	1,653
Limit of Detection:	1	53	1	53	1	53
Comments:						

TNTC: Too numerous to count

<: Less Than

>: Greater Than

Count/m<sup>3</sup>: Count per meter cubed

PAACB: Pan-American Acrobiology Certification Board

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

\*\**Aspergillus* and *Penicillium* spores (and others such as *Paeclomyces*) 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: Helen M Enzen

Approved By: Norman E 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 #: 11-1044

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
<b>Sample Identification:</b>	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
<b>Analysis:</b>	Fungi Enumeration & Identification - Direct Examination	Fungi Enumeration & Identification - Direct Examination	Fungi Enumeration & Identification - Direct Examination
<b>Methodology:</b>	SLGL-3067	SLGL-3067	SLGL-3067
<b>Sample Media:</b>	Air-O-Cell	Air-O-Cell	Air-O-Cell
<b>Debris Rating:</b>	3	2	2
<b>Air Volume (L):</b>	75.0	75.0	75.0
<b>Minutes:</b>	5	5	5
<b>Date Analyzed:</b>	December 6, 2011	December 6, 2011	December 7, 2011

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>	Raw Count	Count/m <sup>3</sup>
<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>						
<i>Myxomycetes/Periconia</i> /smuts					2	107
<i>Nigrospora</i>						
<i>Oidium/Erysiphe/Peronospora</i>						
<i>Phoma</i>						
<i>Pithomyces</i>						
rusts						
<i>Spegazzinia</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		
<b>Total fungal spores and fragments:</b>	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/m<sup>3</sup>: 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:

*Helen M Enzle*

Approved By:

*Norman E 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 #: 11-1044

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

<b>Lab Number:</b>	294059		
<b>Sample Identification:</b>	11-1044-A10, Analytical field blank		
<b>Analysis:</b>	Fungi Enumeration & Identification - Direct Examination		
<b>Methodology:</b>	SLGL-3067		
<b>Sample Media:</b>	Air-O-Cell		
<b>Debris Rating:</b>	1		
<b>Air Volume (L):</b>	0.0		
<b>Minutes:</b>	0		
<b>Date Analyzed:</b>	December 7, 2011		

Mold/Fungi Type	Raw Count	Count/m <sup>3</sup>			
<i>Alternaria</i>					
Ascospores					
** <i>Aspergillus/Penicillium</i> - like					
Basidiospores					
<i>Bipolaris/Drechslera</i> -like					
<i>Botrytis</i>					
<i>Chaetomium</i>					
<i>Cladosporium</i>					
<i>Curvularia</i>					
<i>Epicoccum</i>					
<i>Fusarium</i>					
<i>Myxomycetes/Periconia</i> /smuts					
<i>Nigrospora</i>					
<i>Oridium/Erysiphe/Peronospora</i>					
<i>Phoma</i>					
<i>Pithomyces</i>					
rusts					
<i>Spegazzinia</i>					
<i>Stachybotrys</i>					
<i>Stemphylium</i>					
<i>Torula</i>					
<i>Ulocladium</i>					
unknown/unidentified					
hyphal fragments					
<b>Total fungal spores and fragments:</b>	< 1	---			
<b>Limit of Detection:</b>	1	---			
<b>Comments:</b>	None detected				

TNTC: Too numerous to count  
 <: Less Than  
 >: Greater Than  
 Count/m<sup>3</sup>: 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 *Paeclomyces* ) 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: Helen Menzies

Approved By: Norman E. 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.slg.com email: Lab@slg.com

Submitting Co:

SAULIS

SLGI Job #:

11-224

Client Project:

Arden Village School

Client PO:

Attention:

Sampled By:

SMC

Phone:

Fax:

Comments:

Water, drinking or waste  
 Wipe  
 Wipe composite  
 Other:

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

\*Not available for all tests. Schedule wash and weekend tests in advance.

Sample Matrix Type (select one)

Air  Bulk  Soil  
 Aqueous  Oil  Solid  
 Agar (biostrip)  Paint  Swab  
 Agar (plate)  Sludge  Tape Lift

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

Samples received in good condition? Yes No

SLGI Lab #	Sample Identification	Analysis	Date Sampled	Time	Media/ Container	Preservative	4°C	Swab/Wipe Area Units:	Air Volume (L)	Minutes
11-1044	A01	Fungal car-ID	12/2		Air - Cell				75	5
	A02								75	5
	A03								75	5
	A04								75	5
	A05								75	5
	A06								75	5
	A07								75	5
	A08								75	5
	A09								75	5
	A10								0	0

Sample Collection and Custody Information

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

Relinquished By:

*[Signature]* 12-4-11

Date/Time:

Received By:

*[Signature]*

Date/Time:

12/5/11 9:05

Relinquished By:

*[Signature]*

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.





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.slg.com email: Lab@slg.com

Submitting Co:

BAU 15

SLG Job #

Address:

Autborum Junior School

Client Project:

Autborum Junior School

Attention:

Sampled By:

SNAC

Phone:

email:

Fax:

Sample Matrix Type  
(select one)

- Air  
 Bulk  
 Aqueous  
 Oil  
 Agar (biostrip)  
 Paint  
 Agar (plate)  
 Sludge  
 Soil  
 Solid  
 Swab  
 Tape Lift  
 Water, drinking or waste  
 Wipe  
 Wipe composite  
 Other:

Comments:

Preservative

Media/Container

Time

Date Sampled

12/2

Analysis

Fungal CF-ID

Sample Identification

NO1

NO2

NO3

NO4

NO5

NO6

NO7

NO8

NO9

Air

Swab/Wipe Area

Units:

4°C

Air Volume (L)

75

Minutes

5

75

75

75

75

75

75

75

0

0

0

0

0

0

SGI Lab #

Samples received in good condition? Yes  No

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

Sample Collection and Custody Information

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

Relinquished By:

Date/Time:

Relinquished 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.

**APPENDIX A4**

**ANALYTICAL RESULTS**

**Vacuum Sample  
December 2, 2011**



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

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

Client: SAU #15  
90 Farmer Road  
Hooksett, NH 03106

SLGL Job #: 11-1044  
Client Project: Auburn Village School  
Report Date: December 2, 2011  
Date Sampled: December 2, 2011  
Date Received: December 1, 2011  
Collected by: SRM  
Analyzed by: NEF

**Analytical Results**

<b>Lab Number:</b>	294002		
<b>Sample Identification:</b>	11-1044-B01, Vacuum sample carpet, classroom m-1, carpet by desk & HVAC unit		
<b>Analysis:</b>	Dust Characterization		
<b>Methodology:</b>	SLGL-3096		
<b>Sample Media:</b>	Vacuum Tube		
<b>Date Analyzed:</b>	December 2, 2011		

Identification	Percentage(%)		
Algae			
Animal Hair (including wool)	< 1		
Arthropod parts (insects, spiders etc)	< 1		
Carbonaceous Particles (e.g. soot, graphite, fly ash, furnace emissions)	8		
Cellulose fibers	50		
Epithelial (skin) cells	10		
Feathers			
Fern, moss, etc.			
Fibrous glass	< 1		
Fungi	< 1		
Gypsum dust	3		
Human hair	2		
Miscellaneous	> 10		
Mites			
Other mineral particles	3		
Plant matter (including trichome)	2		
Pollen	< 1		
Quartz	2		
Starch Particles	2		
Synthetic fibers	2		
Wood chips	< 1		
<b>Comments:</b>			

Analytical Dust Characterization performed using optical microscopy methodology.

<: Less Than  
>: Greater Than

Reviewed by: Helen M Green

Approved By: Norman Fletcher  
Norman Fletcher, Lab Manager

