



Environmental  
& Remediation &  
Management, Inc.

**LIMITED FUNGI (MOLD)  
EVALAUTION**

CONDUCTED AT:

**Walton School  
Wing C (Rooms 21 & 24)  
601 Mountain Ave.,  
Springfield, NJ 07081**

CONDUCTED FOR:

**Springfield Board of Education  
139 Mountain Ave  
Springfield, NJ 07081**

ER&M, INC. PROJECT NO.: 1035-283

REPORT PREPARED BY  
GUILLERMO M. MORALES  
PRESIDENT & ENVIRONMENTAL SPECIALIST  
JANUARY 27, 2018



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## TABLE OF CONTENTS

1. Introduction/observances.....	Page 1
2. Results .....	Page 2
3. Mold Report Overview.....	Page 2-3
4. Understanding types of mold .....	Page 3
5. Conclusion.....	Page 4-5

ATTACHED at the end: laboratory analytical reports, rough drawing layout of area of concern,  
credentials



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Project No.: 1035-284

January 27, 2018

**Mr. William Knorr, Supervisor of Bldgs & Grounds  
Springfield Board of Education  
139 Mountain Ave  
Springfield, NJ 007081**

**Re: Limited Mold (fungi) air testing & evaluation @ Walton School, 601 Mountain Ave,  
Springfield, NJ 07081 (specifically Wing C, Rooms 21 & 24)**

Dear Mr. Knorr;

As per your request, On January 25, 2018 ER&M, Inc.'s Environmental Technician performed air sampling and visual evaluation pertaining to suspected fungal (Mold) presence in Wings C, Rooms 21 & 24 (area of concern) of the school. This sampling event was conducted as a follow up to previous sampling and remedial; clean-up work performed in the areas of concern.

The findings presented herein are subject to the limitations indicated at the end of this report.

1. Air-O-Cell sampling was performed to check for airborne fungal (mold) spores and other airborne particulates in every room in area of concern. Additionally, an outdoor background reference sample was collected for comparison purposes. Air-O-Cell samples were collected and analyzed using the manufactures procedures and guidelines. All samples were submitted to EMSL Analytical, Inc.'s laboratories in Piscataway, NJ for analysis.

**OBSERVANCES ON 1-25-2018**

- No odor indicative of mold (musty) was observed by our technician at time of evaluation in any of the areas of concern, Rooms 21 and 24.
- Both Rooms were noted as visually clean. In Room 21, part of the flooring that had previously been removed was now replaced and new vinyl floor tiles observed.



Project No.: 1035-284 (Walton School, Springfield, NJ)

## **RESULTS**

Analysis of the Air-O-Cell cassettes in Room 21 & Room 24 indicated “low” total spore counts of common fungi, and was significantly lower than the outdoor comparison QA/QC sample and significantly lower than the original sampling episode on 12-19-17.

Typically outside air samples are used to determine what kinds of molds and levels will be present for an indoor environment. The outside samples indicated significantly higher spore counts than the Rooms 21 and 24 (See attached laboratory reports).

The fungal spore type “*Stachybotris*” (media deemed “toxic black mold”) was not detected in any of the samples collected.

## **MOLD REPORT OVERVIEW**

Molds are microscopic organisms that can be found almost everywhere. Their spores are lightweight allowing them to travel through air and when found in excessive quantities can cause allergic reactions.

The mold(s) identified in this report are often associated with soils, moisture enriched environments, water, and deteriorating materials such as cellulose (paper) based products. Mold is naturally present in outdoor environments, and can be a problem in indoor environments at high levels. Mold can grow on virtually any organic substance, as long as moisture and oxygen are present. When excessive moisture accumulates in buildings or on building materials, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed it is impossible to eliminate all molds and mold spores in the indoor environment. Since mold requires water/moisture to grow, it is important to prevent moisture problems in buildings.



Project No.: 1035-284 (Walton School, Springfield, NJ )

Since mold requires water/moisture to grow, it is important to prevent moisture problems in buildings. Some moisture problems in buildings have been linked to changes in building construction practices during the 1970's, 80's, and 90's. Some of these changes have resulted in buildings that are tightly sealed, but may lack adequate ventilation, which will potentially lead to moisture buildup. Building materials, such as drywall, may not allow moisture to escape easily. Moisture problems may include roof leaks, plumbing leaks, landscaping or gutters that direct water into or under the building, and unvented combustion appliances.

Active mold growth in indoor environments such as subject property is inappropriate and may lead to exposure and adverse health effects. The most common symptoms of mold exposure are runny nose, eye irritation, cough, congestion, and aggravation of asthma. Individuals with persistent health problems that appear to be related to mold or other types of air quality contaminant exposure should see their physicians for a referral to professionals who are trained in occupational/environmental medicine or related specialties and are knowledgeable about these types of exposures.

### UNDERSTANDING TYPES OF MOLD

**Allergenic** molds are normally not dangerous in low amounts, but they can cause allergenic or asthmatic symptoms such as wheezing or a runny nose. These molds can be abated safely with the assistance of gloves and the use of respiratory protection, such as a disposable particulate-removing respirator.

**Mycotoxic** molds can cause serious health effects in humans and animals. Health effects range from short-term irritation, to immunosuppressant, to cancer and death. If any toxic molds are identified, it is suggested that you see advice from an Industrial Hygienist or other mold professional for guidance. The average homeowner should NOT attempt the removal of these types of mold.

**Pathogenic** molds can cause serious health effects in persons with suppressed immune systems, those taking chemotherapy, those with HIV/AIDS, or autoimmunity disorders. If any pathogenic molds identified, it is suggested you seek advice of an Industrial Hygienist or other mold professional for guidance. The average homeowner should NOT attempt the removal of these types of mold.



Project No.: 1035-284 (Walton School, Springfield, NJ)

Currently there are no official government standards or reference ranges for acceptable levels of microorganisms in fungi spore counts, air, bulk, and wipe samples derived from indoor environments. However, if Indoor fungi spore counts results are elevated they should be comparatively lower than the outside/ambient levels.

**Dept of Health and Human Services - Centers for Disease Control and Prevention -**  
*“standards for judging what is and what is not an acceptable or tolerable quantity of mold have not been established.”*

Since the USEPA or other governing bodies have not developed standards or reference ranges for acceptable levels of fungi (mold) spore counts, ER&M, Inc. has referenced other organizations and our experience and training for guidance in determining interpretation of results.

**The National Allergy Bureau - :** “Considers mold counts in air of 0-900 as low, to 2500 as moderate, to 25,000 as high, and above 25,000 as very high. At "high" levels most individuals with any sensitivity will experience symptoms. Acceptable levels for individual species vary since species toxicity varies widely as does spore size, weight, and other features which affect risk to building occupants. E.g. Aspergillus/Penicillium in a "clean" residential building study was at a mean of 230, in buildings known to have a moisture or flooding problem it was at 2235 and in mold contaminated buildings the figure was 36,037.”

### IN CONCLUSION

Based upon the information ER&M gathered during our Rooms 21 & 24 evaluations & with analysis of samples collected; indications of the presence of very common fungi species at low concentrations/levels were observed. Total fungal spore counts from samples collected from both subject areas were significantly lower than comparative outdoor sample and lower than previous 12-19-17 sample event. Therefore, ER&M does not draw any conclusions indicating that the total fungal spore counts in the subject spaces are elevated above typical levels for New Jersey on that day. Based upon the information gathered during our evaluation, analysis of samples collected results do not indicate the need for additional fungal/mold remediation to be performed. Should odors indicative of mold (musty) be observed or any visual evidence of water or mold staining then further remediation and/or evaluations will be necessary.



Project No.: 1035-284 (Walton School, Springfield, NJ)

The fungal species that were identified in this report are commonly found everywhere and usually pose little health problems except in very high concentrations and/or to individuals with diminished immune function. Please keep in mind that fungi testing has its limitations as airborne counts can vary greatly from day to day, season to season with a multitude of factors influencing fungal activity.

The fungi's discovered during this project are commonly found in the air of buildings and growing on damp surfaces. Fungi/Mold found indoors often comes from outdoor mold/fungi sources, consequentially the average person is exposed to some level of mold/fungi on a daily basis without apparent injury. Usually mold spores are the cause of health related problems only when inhaled in significant quantities.

Each person can react differently to mold and resistance among people varies significantly. A general rule to follow is; if mold is visible or its odor perceptible, corrective action to eliminate the excess moisture, as well as cleanup/ remove the mold/fungi and any material contaminated by it is necessary.

Should any univent, plumbing or other leaks occur, the moisture needs to be dried up as soon as possible and any materials that get moist or wet be dried and/or disposed. Moisture issues should be promptly addressed or the possibility of fungi growth is increased.

### **LIMITATIONS**

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services. The conclusions and recommendations contained in this report are based on limited environmental testing, and were arrived at in accordance with generally accepted standards of for limited fungi testing and evaluations. The testing conducted at the site was limited in scope, and cannot be considered representative of areas not tested, nor of time periods other than during the testing period.



**Environmental  
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Management, Inc.**

Page 6

Project No.: 1035-284 (Walton School, Springfield, NJ)

If you have any questions, or if we could be of any further assistance, please feel free to contact our office. ER&M, Inc. looks forward to providing you with the service and attention to detail that you have come to expect from us.

Sincerely,  
ER&M Inc.

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Guillermo M. Morales / President

**Attached:** Field Observations, laboratory analytical reports, rough drawing,  
Contractor's certificate of completion, credentials





Environmental  
& Remediation  
& Management, Inc.

20-10 Maple Ave, Bldg. 35E  
Fair Lawn, NJ 07410  
Tele: (973) 949-3525  
Fax: (973) 949-3526  
Email: ermnj@aol.com

0518 00 322

CLIENT: Springfield BOE ADDRESS: 139 Mountain Ave Springfield NJ 07081  
PROJECT: 1035-284 WALTON ADDRESS: 601 Mountain Ave Springfield NJ 07081  
TECH: A Levens SAMPLING DATE: 1/25/18 CALIB. DATE: 1/25/18 PR. No.: 1035-284

### AIR-O-Cell (fungi) MONITORING DATA SHEET

Sample No.	Sample Location	Time on	Time off	Elapse Time (Min)	Flow Rate (LPM)	Volume Liters	Air-O-Cell Serial #
SW-01	Room 2	201	211	10min	15.0	150	24205635
SW-02	Room 24	146	156	10min	15.0	150	24205451
SW-03	Outside	133	143	10min	15.0	150	25068460
					15.0		
					15.0		

Analysis Type:  Total Fungal Spore Count - Air-O-Cell

TAT: 24 Hour TAT requested

Fax Results: (973) - 949 - 3526

Email to: ermnj@aol.com

Chain of Custody

Relinquished By:	Received By:	Date / Time
<i>[Signature]</i>		
<i>[Signature]</i>		

Laboratory Submitted To: EMSL Analytical, Inc.

RECEIVED 251 PM

JAN 25 2018  
BY [Signature]  
EMSL PISCATAWAY

Page of



# EMSL Analytical, Inc.

1056 Stelton Road Piscataway, NJ 08854  
Tel/Fax: (732) 981-0550 / (732) 981-0551  
<http://www.EMSL.com/piscatawaylab@emsl.com>

**EMSL Order:** 051800322  
**Customer ID:** ENVI76  
**Customer PO:**  
**Project ID:**

**Attn:** Anastasia Leverence  
Environmental Remediation & Management  
20-10 Maple Ave  
Building 35E  
Fair Lawn, NJ 07410  
**Project:** 1035-284 Walton/Springfield BOE, 601 Mountain Ave, Springfield, NJ 07081

**Phone:** (973) 949-3525  
**Fax:** (973) 949-3526  
**Collected:** 01/25/2018  
**Received:** 01/25/2018  
**Analyzed:** 01/25/2018

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	051800322-0001			051800322-0002			051800322-0003		
Client Sample ID:	SW-01			SW-02			SW-03		
Volume (L):	150			150			150		
Sample Location	Room 21			Room 24			Outside		
Spore Types	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total
Alternaria	1	20	20	-	-	-	-	-	-
Ascospores	-	-	-	7	100	83.3	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	5	100	27.8
Basidiospores	-	-	-	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	4	80	22.2
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	1	20	5.6
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	2	40	40	1	20	16.7	2	40	11.1
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	1	20	5.6
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Microascus	2	40	40	-	-	-	-	-	-
Paecilomyces	-	-	-	-	-	-	7	100	27.8
<b>Total Fungi</b>	<b>5</b>	<b>100</b>	<b>100</b>	<b>8</b>	<b>120</b>	<b>100</b>	<b>20</b>	<b>360</b>	<b>100</b>
Hyphal Fragment	-	-	-	-	-	-	1	20	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum  
Myxomycetes++ = Myxomycetes/Periconia/Smut

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\* Denotes particles found at 300X. \*\* Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Piscataway, NJ AIHA-LAP, LLC—EMLAP Accredited #167035

Initial report from: 01/26/2018 08:28:38

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)