PMEC
Paul Matuszko
Environmental Consulting

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February 13, 2025

Ms. Erin Obey
Superintendent of Schools
Pembroke Public Schools
72 Pilgrim Road
Pembroke, MA 02339

RE: Carpet Microbial Limited Sampling Report for
Hobomock Elementary School
81 Learning Lanes, Pembroke, MA
PMEC Project #25-113

Dear Ms. Obey:

Paul Matuszko Environmental Consulting (***PMEC***) is pleased to submit this carpet microbial sampling report for the limited assessment conducted at the Hobomock Elementary School, 81 Learning Lanes, Pembroke, Massachusetts. PMEC conducted limited carpet microbial sampling on February 7, 2025 as requested by the Pembroke Teachers Association (PTA). The microbial sampling was conducted by PMEC Principal, Paul Matuszko after school hours on February 7, 2025. The assessment included inspecting existing room conditions and conducting carpet vacuum bulk dust sampling for microbial laboratory analysis. A summary of the sampling methods and analysis results are provided as follows:

1.0 Background

A. PMEC conducted sampling within the following carpeted rooms:

1. Interior office/workroom #256
2. LIR Assembly room
3. Small Teacher's Room
4. Large (main) teacher's room

2.0 Sampling and Analysis Methods

A. PMEC collected four (4) "vacuum" bulk dust carpet samples for mold spore analysis using 25 mm, cowled asbestos air sampling cassettes. The cassettes are loaded with 0.8 micron pore size mixed cellulose filters. An electric high volume sampling pump is used to collect the samples with the cassette attached via tygon tubing. The cover and extension cowl are removed to expose the filter closer to the carpeting. Samples are collected at 10 liter per minutes (10 LPM) within a 10 cm^2 x 10 cm^2 sampling area (100 cm^2 total area). The cassette is placed on/over the carpeted surface for a 5 second period to thoroughly draw and "vacuum" particulate matter from within the carpet material (pile). Upon sampling to 100 cm^2 area, the cowl and covers are immediately placed over the filtered base section to seal the sample cassette in place.

B. The cassettes are individually labeled and sampling data documented on the chain of custody. The particulate matter (mold spores, particulates, pollen, etc.) are trapped on the filter for direct microscopic examination.

C. The samples were collected on February from approximately 4:30 am – 5:15 pm. Members of the PTA were present at the collection of each sample. The results and discussion described herein are only representative of the conditions on the date and time of sample collection.

D. The samples were sent via chain of custody by Fed Ex to Hayes Microbial Laboratory (Hayes), located in Midlothian, Virginia. Hayes Laboratory is accredited by the American Industrial Hygiene Association (AIHA) for mold and bacteria identification and analysis (AIHA EMPAT Laboratory Accreditation ID # 188863). Results are reported as Total Fungi Counts in spores per cubic meter of air (**C/m^3**). The samples were analyzed for both non-viable and viable fungi (mold) by direct analysis optical microscopy.

E. A summary of analysis criteria of direct identification analysis is provided in the lab analysis sheets. The sample results are provided as Attachment A to this report.

3.0 Laboratory Analysis Results

A. The results of the mold spore air sampling are presented in Table 1 below.

Notes: Additional information on species types are provided in the Laboratory Analysis results.

Table 1
Vacuum Bulk Dust
Sampling Analysis Results

Sample #	Sample Location	Mold Spore Present / Estimate	Mycelial estimate (Growth potential)
113-01D	**Room 256** (interior room – carpet at middle of room)	No Fungi (mold) identified	None (ND)
113-02D	**LIR Assembly Room** (front middle near front wall)	No Fungi (mold) identified	None (ND)
113-03D	**Small Teachers Room #1** (near back wall at stains)	No Fungi (mold) identified	None (ND)
113-04D	**Large (main) teacher's Room #2** – at back wall	Pithomyces – rare (low level) Myxomycetes - rare (low level)	None (ND) None (ND)
113-05D	**Field Blank**	No Fungi (mold) identified	None (ND)

4.0 Discussion of Mold Results

1. Three of the four vacuum bulk dust samples were analyzed not to contain mold spores. These locations include office #256, LIR Assembly room and small teacher's room. No fugal (mold) spores were identified in samples 01D, 02D and 03D. Minor levels, or rare, fungal spores were identified on sample 04D within the large teacher's room back wall carpet. These results are typical for carpeting in a generally clean and dry environment. The results indicate that carpeting is regularly cleaned and vacuumed with no or limited settled mold spores.

2. The results do not indicate that the carpeting is not a source of fungal spores within the areas sampled. No additional vacuum bulk dust carpeting samples are recommended at this time.

5.0 Limitations

A. The assessment provided herein is based on the professional judgment of PMEC using approved industry standards and guidelines. Assessment findings are based on the investigator's careful consideration of field observations and interpretation of analysis results in accordance with industry

standards, including, but not limited to, IICRC S520 guidelines for Condition 1 – normal fungal ecology, 2008 AIHA (Green Book) publication "Recognition, Evaluation, and Control of Indoor Mold", and the ACGIH 1999 book "Bioaerosols – Assessment and Control".

B. The analysis results are only representative of the conditions of the date and time of sample collection and are considered a "snapshot in time". PMEC's results listed herein represent the conditions present at the time of inspection and sampling.

Should you have any additional questions regarding this assessment report or the results, please do not hesitate to contact me at 617-893-4476 or email at pmatuszko@pmecsolutions.com. PMEC appreciates the opportunity to provide our services to the Pembroke Public Schools for this project.

Respectively submitted,

Paul Matuszko, CIH, CIEC
Project Manager/Principal

ATTACHMENTS

Attachment A – Hayes Microbial - Sample Analysis Results (pages 1-5)

Attachment A

Laboratory Analysis Results

Hayes Microbial – pages 1-5

HAYES MICROBIAL CONSULTING

#25006390

Analysis Report prepared for

Paul Matuszko Environmental Consulting

79 Cedar Street
Walpole, MA 02081

Phone: **(617) 893-4476**

25-113
Hobomock Elem. School
81 Learning Ln.
Pembroke, MA 02359

Collected: **February 7, 2025**
Received: **February 11, 2025**
Reported: **February 11, 2025**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 5 samples by FedEx in good condition for this project on February 11th, 2025.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. Information supplied by the customer can affect the validity of results. These results apply only to the samples as received. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

All information provided to Hayes Microbial is confidential information relating to our customers and their clients. We will not disclose, copy, or distribute any information verbally or written, except to those designated by the customer(s). We take confidentiality very seriously. No changes to the distribution list will be made without the express consent of the customer.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC.

EPA Laboratory ID: VA01419

Lab ID: #188863

DPH License: #PH-0198

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Pembroke, MA 02359

#25006390

Direct Analysis
SOP - HMC#102

#1	Bulk Direct (100.00 cm2*)	Organism	Spore Estimate	Mycelial Estimate
	113-01D - Room 256 - Middle Carpet	No Fungi Detected		

#2	Bulk Direct (100.00 cm2*)	Organism	Spore Estimate	Mycelial Estimate
	113-02D - LIR Assembly - Front Middle Carpet	No Fungi Detected		

#3	Bulk Direct (100.00 cm2*)	Organism	Spore Estimate	Mycelial Estimate
	113-03D - Small Teachers Room - Backside Carpet	No Fungi Detected		

#4	Bulk Direct (100.00 cm2*)	Organism	Spore Estimate	Mycelial Estimate
	113-04D - Large Teachers Room - Backside Carpet	Pithomyces	Rare	ND
		Myxomycetes	Rare	ND

#5	Bulk Direct (0.00 cm2*)	Organism	Spore Estimate	Mycelial Estimate
	113-05D - Field Blank	No Fungi Detected		

* indicates data provided by the customer

Collected: **Feb 7, 2025** Received: **Feb 11, 2025** Reported: **Feb 11, 2025**

Project Analyst: Joseph Lape, Date: **02 - 11 - 2025**

Reviewed By: Steve Hayes, BSMT Date: **02 - 11 - 2025**

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Direct Analysis Information

Spore Estimate		Percentages
ND	None Detected	0%
Rare	Less than 10 spores	< 1%
Light	10 - 99 spores	1-10%
Moderate	100 - 999 spores	11-25%
Heavy	1000 - 9999 spores	26-50%
Very Heavy	10000 or greater spores	51-100%

Mycelial Estimate	
ND	None Detected No active growth at site.
Trace	Very small amount of Mycelium Probably no active growth at site.
Few	Some Mycelium Possible active growth at site.
Many	Large amount of Mycelium Probable active growth at site.

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Analyte Descriptions

Myxomycetes	**Habitat:**	Found on decaying plant material and as a plant pathogen.
	Health Effects:	Some allergenic properties reported, but generally pose no health concerns to humans.
Pithomyces	**Habitat:**	Common fungus isolated from soil, decaying plant material. Rarely found indoors.
	Health Effects:	Allergenic properties are poorly studied. No cases of infection in humans.

HAYES MICROBIAL CONSULTING

Paul Matuszko Environmental Consulting
79 Cedar Street
Walpole, MA 02081

N

SHIP: FEDEX - PAK SO
DATE: 02-11-2025

8175 9179 7898

MOLD

25006390

Job Number: 25-113	Job Name: Hobomock Elem. School, 81 Learning Lanes, Pembroke, MA 02359
Collector: Paul Matuszko	Mobile: 6178934476 Email: pmatuszko@pmecsolutions.
Date Collected: 02/07/25	Note: 10LPM @ 5 seconds per carpet spot w cowl off

Analysis Type		Analysis Description	Turnaround	Accepted Media Types
Spore Trap	S	Identification & Enumeration of Fungal Spores	24 Hour	Air Cassettes, Impact Slides
	S+	Spore Trap Analysis with Dander, Fiber, and Pollen counts	24 Hour	Air Cassettes, Impact Slides
Direct ID	D	ID & Semi-Quantative Enumeration of spores and mycelium	24 Hour	Bio-Tape, Tape, Swab, Bulk, Agar Plate
	D+	Direct Analysis with Fully Quantitative spore count	24 Hour	Bio-Tape, Tape, Swab, Bulk, Agar Plate
Culture	C1	Identification & Enumeration of Mold only	7 Day	Air Plate, Agar Plate, Swab, Bulk
	C2	Identification & Enumeration of Bacteria only	4 Day	Air Plate, Agar Plate, Swab, Bulk
	C3	Identification & Enumeration of Mold and Bacteria	7 Day	Air Plate, Agar Plate, Swab, Bulk
	C5	Coliform Screen for Sewage Bacteria	2 Day	Agar Plate, Swab, Bulk
Particle	TPA	Total Particulate Analysis, ID & Count (Does Not Include Mold)	24 Hour	Air Cassettes, Impact Slides, Bio-Tape

#	Number	Sample	Analysis	~~Volume~~ Area	Notes
1	113-01D Bulk	Room #256 - middle carpet	D	100 cm^2	10x10 cm^2 area - Vacuum dust
2	113-02D	LIR Assembly - Front middle carpet	D	"	5secs per cm - 37mm MCE filter
3	113-03D	Small Teachers Room - Backside carpet	D	"	"
4	113-04D	Large Teachers Room - Backside carpet	D	"	"
5	113-05D	Field Blank	D	-	
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7					
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15					
16					

Released by: Paul Matuszko	Date: 2/10/25	Received By: CCP	Date: 2/11/25