



## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

Dare County Schools  
 Ian Adams  
 3020 S Wrightsville Ave.  
 Nags Head, NC

**Project #:** 25-2450  
**Project Location:** First Flight Middle School  
 109 Veterans Drive  
 Kill Devil Hills, NC 27948

**Project Type:** IAQ

**PO/Claim #:** -

**Table 1: Non-Viable Air Samples**

Date Collected:	11/10/25	11/10/25	11/10/25	11/10/25	11/10/25
	1	2	3	4	5
Spore Identification	Cafeteria	Gym	Room H120	CR J119	Hall at A105
<i>Cladosporium</i>	-	-	-	-	-
Ascospores	13	-	-	13	-
Basidiospores <sup>2</sup>	-	40	67	520	53
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-	-	-	-	-
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	27	27	-	-	-
Hyphal Elements <sup>3</sup>	-	-	-	-	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrimum</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
<i>Trichocladium</i>	-	-	-	-	-
Unidentified	-	-	-	-	13
<i>Ulocladium</i>	-	-	-	-	-
<i>Torula</i>	-	-	-	-	-
<i>Pithomyces</i>	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	13	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>40</b>	<b>80</b>	<b>67</b>	<b>533</b>	<b>67</b>
<b>Particulate Level</b>	<b>low-moderate</b>	<b>low</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>moderate</b>
<b>Date Analyzed:</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>

Analyzed by: Cathy A. Richmond, B.S.

The results reported by LRC are a record of the microbes identified by our laboratory staff. We assume responsibility over analysis conducted in the laboratory, but cannot assume responsibility for activities completed in the field by the client, other personnel associated with the samples submitted, or other activities beyond the laboratory. Any information given other than microbial information, is provided as general reference information from published sources and is not an extension of liability to LRC.



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 109 Veterans Drive  
 Kill Devil Hills, NC 27948  
 Project Type: IAQ  
 PO/Claim #: -

**Table 1: Non-Viable Air Samples**

Date Collected:	11/10/25	11/10/25	11/10/25	11/10/25	11/10/25
	6	7	8	9	10
Spore Identification	CR A105	CR A108	CR K127	CR K113	CR K117
<i>Cladosporium</i>	-	-	-	-	-
Ascospores	-	-	-	13	-
Basidiospores <sup>2</sup>	147	40	27	40	40
Smuts, <i>Periconia</i> , Myxomycetes <sup>4</sup>	-	-	-	-	-
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	-	-	-	-	-
Hyphal Elements <sup>3</sup>	-	-	-	13	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>147</b>	<b>40</b>	<b>27</b>	<b>67</b>	<b>40</b>
<b>Particulate Level</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>low</b>	<b>low-moderate</b>	<b>low</b>
<b>Date Analyzed:</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>

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**Table 1: Non-Viable Air Samples**

Date Collected:	11/10/25	11/10/25	11/10/25	11/10/25	11/10/25
	11	12	13	14	15
Spore Identification	Media Center	Hall at L102	CR L148 - Computer Lab	CR L153	Hall at M106
<i>Cladosporium</i>	13	240	-	-	-
Ascospores	13	40	-	-	13
Basidiospores <sup>2</sup>	27	227	40	53	27
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-	-	-	-	-
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	-	-	-	-	-
Hyphal Elements <sup>3</sup>	27	-	-	13	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	13	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>93</b>	<b>507</b>	<b>40</b>	<b>67</b>	<b>40</b>
<b>Particulate Level</b>	<b>moderate</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>moderate</b>
<b>Date Analyzed:</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>

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**Table 1: Non-Viable Air Samples**

Date Collected:	11/10/25	11/10/25	11/10/25	11/10/25	11/10/25
	16	17	18	19	20
Spore Identification	CR M112	CR M121	Hall at K101	CR J105	Admin at L133
<i>Cladosporium</i>	-	-	13	-	13
Ascospores	-	-	-	-	-
Basidiospores <sup>2</sup>	27	40	13	13	27
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-	-	-	-	-
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	-	-	-	-	13
Hyphal Elements <sup>3</sup>	-	-	-	-	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
<i>Trichocladium</i>	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
<i>Torula</i>	-	-	-	-	-
<i>Pithomyces</i>	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>27</b>	<b>40</b>	<b>27</b>	<b>13</b>	<b>53</b>
<b>Particulate Level</b>	<b>low</b>	<b>low</b>	<b>moderate</b>	<b>low</b>	<b>moderate</b>
<b>Date Analyzed:</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>	<b>11/24/25</b>

Analyzed by: Cathy A. Richmond, B.S.



**LRC Indoor Testing and Research**  
 200 Commonwealth Ct, Suite 101  
 Cary, NC 27511  
 (919) 342-4936

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**PO/Claim #:** -

**Table 1: Non-Viable Air Samples**

Date Collected:	11/10/25
Spore Identification	Outdoor Air
<i>Cladosporium</i>	-
Ascospores	640
Basidiospores <sup>2</sup>	3573
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	-
Hyphal Elements <sup>3</sup>	53
<i>Alternaria</i>	53
<i>Curvularia</i>	-
<i>Epicoccum</i>	-
<i>Cercospora</i>	-
<i>Arthrinium</i>	-
Clear Brown	-
Colorless	-
<i>Trichocladium</i>	-
Unidentified	-
<i>Ulocladium</i>	-
Torula	-
<i>Pithomyces</i>	-
Rust <sup>5</sup>	-
<i>Drechslera/Bipolaris</i>	-
<i>Tetraploa</i>	-
<i>Chaetomium</i>	-
<i>Stachybotrys</i>	-
	-
Total Spores/m <sup>3</sup>	4320
Particulate Level	moderate
Date Analyzed:	11/24/25

Analyzed by: Cathy A. Richmond, B.S.

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**Sample Number:** 7  
**Sample Location:** CR A108  
**Date Collected:** 11/10/25  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/24/25

**Volume (L):** 75  
**Percentage of Slide Read:** 100.0%  
**Detection Limit:** 13.33  
**Particulate Level:** low-moderate  
**Notes:** -

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>		-	spores/m <sup>3</sup>	-
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores	3	40	spores/m <sup>3</sup>	100%
Smuts, <i>Periconia</i> , Myxomycetes		-	spores/m <sup>3</sup>	-
<i>Penicillium/Aspergillus</i> Group		-	spores/m <sup>3</sup>	-
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>		-	spores/m <sup>3</sup>	-
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrimum</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>		-	spores/m <sup>3</sup>	-
Unidentified		-	spores/m <sup>3</sup>	-
<i>Ulocladium</i>		-	spores/m <sup>3</sup>	-
Torula		-	spores/m <sup>3</sup>	-
<i>Pithomyces</i>		-	spores/m <sup>3</sup>	-
Rust		-	spores/m <sup>3</sup>	-
<i>Drechslera/Bipolaris</i>		-	spores/m <sup>3</sup>	-
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>		-	spores/m <sup>3</sup>	-
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>3</b>	<b>40</b>	<b>spores/m<sup>3</sup></b>	

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Non-Viable Spore Trap Analysis

Project #: 25-2450

Report Information:

DETECTION LIMITS (DL) for samples are the minimum number of spores or colonies forming units that can be satisfactorily identified for each sample type.

SPORE TRAP SAMPLES: Calculations based on volume of air sampled & percentage of slide counted, i.e. DL = 1000 L / 75 L if 100% of the slide is counted.

CODE 11: Fungal content and/or particulate level on slide too heavy to identify and enumerate fungal content.

Footnotes:

- 1. Penicillium/Aspergillus group spores are characterized by their small size, round to ovoid shape, being unicellular and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the Penicillium/Aspergillus type. Several common examples would be Acremonium, Paecilomyces, and Trichoderma. Although the majority of spores placed in this group are Penicillium, Aspergillus, or a combination of both, these are not the only two possibilities.
2. Basidiospores are primarily transported indoors from outdoor sources and rarely grow indoors. A high basidiospore count indoors can be indicative of a wood decay problem or wet soil, and should be verified if and an outdoor source of the spores is not present.
3. Hyphae are the tubular filaments of fungi. Hyphae can fragment and become airborne much like spores and are potentially allergenic.
4. The Smut, Periconia, Myxomycete group is a group composed of three different types of organisms whose spores have similar morphologies. Smuts are plant pathogens, Periconia is a relatively uncommon mold indoors, and Myxomycetes are not fungi, but slime molds. Although these organisms do not typically proliferate indoors, their spores are potentially allergenic.
5. Rusts are plant pathogens. These fungi do not typically grow indoors unless an infected plant is present. Rust spores are potentially allergenic.

Direct Microscopic Exam Reporting:

We use a 400x-600x magnification microscope.

Reporting Quantification Levels are as follows:

Table with 2 columns: Reporting Level, Quantitative Description. Rows include Occasional (1-10 per square inch), Few (11-100 per square inch), Moderate (101-1000 per square inch), and Numerous (More than 1,000 per square inch).

Submitted By Analyst:

Cathy A. Richmond (handwritten signature)

Cathy A. Richmond, BS

11/24/2025