



Certificate of Laboratory Analysis

Non-Viable Spore Trap Analysis

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

Project #: 25-1418
Project Location: Cape Hatteras Elementary School
 47500 Middle Ridge Road
 Buxton, NC
Project Type: IAQ
PO/Claim #: -

Table 1: Non-Viable Air Samples

Date Collected:	4/19/25	4/19/25	4/19/25	4/19/25	4/19/25
Spore Identification	1	2	3	4	5
	Gym	Cafeteria	Reception	116	130
<i>Cladosporium</i>	53	13	40	40	27
Ascospores	-	-	13	27	13
Basidiospores ²	-	-	53	-	-
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> ⁴	53	-	-	-	27
<i>Penicillium/Aspergillus</i> Group ¹	27	-	80	67	13
Hyphal Elements ³	-	-	40	-	-
<i>Alternaria</i>	-	13	13	-	-
<i>Curvularia</i>	-	-	13	13	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	13	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust ⁵	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
Total Spores/m³	133	27	267	147	80
Particulate Level	low	low	moderate	low-moderate	low
Date Analyzed:	4/27/25	4/27/25	4/27/25	4/27/25	4/27/25

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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Date Collected:	4/19/25	4/19/25	4/19/25	4/19/25	4/19/25
Spore Identification	6	7	8	9	10
	Media	147	146	153	Hall @ 152
<i>Cladosporium</i>	13	40	-	27	-
Ascospores	-	40	13	27	40
Basidiospores ²	-	-	-	-	27
Smuts, <i>Periconia</i> , Myxomycetes ⁴	-	27	13	-	-
<i>Penicillium/Aspergillus</i> Group ¹	13	13	13	27	-
Hyphal Elements ³	13	13	-	13	13
<i>Alternaria</i>	-	-	-	-	40
<i>Curvularia</i>	-	-	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrimum</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust ⁵	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
Total Spores/m³	40	133	40	93	120
Particulate Level	low	low	low	low-moderate	low
Date Analyzed:	4/27/25	4/27/25	4/27/25	4/27/25	4/27/25

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Table 1: Non-Viable Air Samples

Date Collected:	4/19/25	4/19/25	4/19/25	4/19/25	4/19/25
	11	12	13	14	15
Spore Identification	150	203	209	210	213
<i>Cladosporium</i>	-	27	-	-	27
Ascospores	-	13	27	13	-
Basidiospores ²	-	13	-	-	13
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> ⁴	13	40	-	27	-
<i>Penicillium/Aspergillus</i> Group ¹	-	27	27	13	40
Hyphal Elements ³	-	27	-	13	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	13	40	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrimum</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	13	-
Rust ⁵	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
Total Spores/m³	27	187	53	80	80
Particulate Level	low	moderate	low	low	low
Date Analyzed:	4/27/25	4/27/25	4/27/25	4/27/25	4/27/25

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Table 1: Non-Viable Air Samples

Date Collected:	4/19/25	4/19/25	4/19/25
	16	17	18
Spore Identification	216	Hall @ 212	Outdoor Air
<i>Cladosporium</i>	40	27	120
Ascospores	-	80	413
Basidiospores ²	-	13	80
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> ⁴	-	-	40
<i>Penicillium/Aspergillus</i> Group ¹	13	13	40
Hyphal Elements ³	53	27	13
<i>Alternaria</i>	-	-	13
<i>Curvularia</i>	-	-	-
<i>Epicoccum</i>	-	-	-
<i>Cercospora</i>	-	-	-
<i>Arthrinium</i>	-	-	-
Clear Brown	-	-	-
Colorless	-	-	-
<i>Trichocladium</i>	-	-	-
Unidentified	-	-	-
<i>Ulocladium</i>	-	-	-
Torula	-	-	-
Pithomyces	-	-	-
Rust ⁵	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	-
<i>Tetraploa</i>	-	-	-
<i>Chaetomium</i>	-	-	-
<i>Stachybotrys</i>	-	-	-
	-	-	-
Total Spores/m³	107	160	720
Particulate Level	low-moderate	low	low-moderate
Date Analyzed:	4/27/25	4/27/25	4/27/25

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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

4/27/2025