



LRC Indoor Testing and Research  
 140 Iowa Lane, Suite 102  
 Cary, NC 27511  
 (919) 342-4936

**Certificate of Laboratory Analysis**  
**Non-Viable Spore Trap Analysis**

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

Project #: 24-3287  
 Project Location: Kitty Hawk Elementary School  
 Project Type: IAQ  
 PO/Claim #: -

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

Date Collected:	11/14/24	11/14/24	11/14/24	11/14/24	11/14/24
	1	2	3	4	5
Spore Identification	Hall at Entry	Media Center	Hall at 116	Hall at 129	CR D106
<i>Cladosporium</i>	107	40	53	67	80
Ascospores	40	13	13	27	-
Basidiospores <sup>2</sup>	40	-	40	13	13
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	53	27	27	-	13
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	53	-	27	13	27
Hyphal Elements <sup>3</sup>	13	-	13	40	13
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	13	-	-	-	-
<i>Epicoccum</i>	13	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
<i>Trichocladium</i>	-	-	-	-	-
Unidentified	-	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust <sup>5</sup>	13	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	13	13	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>347</b>	<b>93</b>	<b>187</b>	<b>160</b>	<b>147</b>
<b>Particulate Level</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>low-moderate</b>	<b>low</b>
<b>Date Analyzed:</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>

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

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Project #: 24-3287  
 Project Location: Kitty Hawk Elementary School  
 Project Type: IAQ  
 PO/Claim #: -

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

Date Collected:	11/14/24	11/14/24	11/14/24	11/14/24	11/14/24
	6	7	8	9	10
Spore Identification	CR D122	Hall at Gym	Gym	Cafeteria	Hall at 100F
<i>Cladosporium</i>	40	80	13	13	67
Ascospores	-	27	40	13	80
Basidiospores <sup>2</sup>	27	40	27	40	53
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	13	40	-	13	93
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	27	13	13	27	67
Hyphal Elements <sup>3</sup>	-	27	40	-	120
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	-	-	-	13	53
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
Trichocladium	-	-	-	-	-
Unidentified	-	-	13	-	27
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	-	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	-	-	13	-	120
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	-	-	27	-	53
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>107</b>	<b>227</b>	<b>187</b>	<b>120</b>	<b>733</b>
<b>Particulate Level</b>	<b>low</b>	<b>moderate</b>	<b>low-moderate</b>	<b>low</b>	<b>moderate-heavy</b>
<b>Date Analyzed:</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>

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 Nags Head, NC

Project #: 24-3287  
 Project Location: Kitty Hawk Elementary School  
 Project Type: IAQ  
 PO/Claim #: -

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

Date Collected:	11/14/24	11/14/24	11/14/24	11/14/24	11/14/24
	11	12	13	14	15
Spore Identification	Hall at A109	Hall at A 104	CR 103	CR A 108	Hall at B111
<i>Cladosporium</i>	27	27	27	40	27
Ascospores	13	-	-	-	-
Basidiospores <sup>2</sup>	13	13	13	13	27
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	40	27	13	27	13
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	13	-	-	-	-
Hyphal Elements <sup>3</sup>	67	-	13	-	-
<i>Alternaria</i>	-	-	-	-	-
<i>Curvularia</i>	53	-	-	-	13
<i>Epicoccum</i>	-	-	-	-	-
<i>Cercospora</i>	-	-	-	-	-
<i>Arthrinium</i>	-	-	-	-	-
Clear Brown	-	-	-	-	-
Colorless	-	-	-	-	-
<i>Trichocladium</i>	13	-	-	-	-
Unidentified	13	-	-	-	-
<i>Ulocladium</i>	-	-	-	-	-
Torula	-	-	-	-	-
Pithomyces	-	-	-	13	-
Rust <sup>5</sup>	-	-	-	-	-
<i>Drechslera/Bipolaris</i>	13	-	-	-	-
<i>Tetraploa</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Stachybotrys</i>	13	-	-	-	-
	-	-	-	-	-
<b>Total Spores/m<sup>3</sup></b>	<b>280</b>	<b>67</b>	<b>67</b>	<b>93</b>	<b>80</b>
<b>Particulate Level</b>	<b>moderate</b>	<b>moderate</b>	<b>low</b>	<b>low</b>	<b>low</b>
<b>Date Analyzed:</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>

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 Project Type: IAQ  
 PO/Claim #: -

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

Date Collected:	11/14/24	11/14/24	11/14/24	11/14/24
	16	17	18	19
Spore Identification	Hall B103	CR 106	B11	Outdoor Air
<i>Cladosporium</i>	13	27	-	120
Ascospores	-	-	13	267
Basidiospores <sup>2</sup>	13	-	27	133
Smuts, <i>Periconia</i> , <i>Myxomycetes</i> <sup>4</sup>	-	-	13	67
<i>Penicillium/Aspergillus</i> Group <sup>1</sup>	27	-	-	93
Hyphal Elements <sup>3</sup>	13	27	-	27
<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>67</b>	<b>53</b>	<b>53</b>	<b>707</b>
<b>Particulate Level</b>	<b>low</b>	<b>low</b>	<b>low</b>	<b>low-moderate</b>
<b>Date Analyzed:</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>	<b>11/20/24</b>

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 Ian Adams  
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**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 3  
**Sample Location:** Hall at 116  
**Date Collected:** 11/14/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/20/24

**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>	4	53	spores/m <sup>3</sup>	29%
Ascospores	1	13	spores/m <sup>3</sup>	7%
Basidiospores	3	40	spores/m <sup>3</sup>	21%
Smuts, <i>Periconia</i> , Myxomycetes	2	27	spores/m <sup>3</sup>	14%
<i>Penicillium/Aspergillus</i> Group	2	27	spores/m <sup>3</sup>	14%
Hyphal Elements	1	13	spores/m <sup>3</sup>	7%
<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>Arthrinium</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>	1	13	spores/m <sup>3</sup>	7%
<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>14</b>	<b>187</b>	<b>spores/m<sup>3</sup></b>	

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Dare County Schools  
 Ian Adams  
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 Nags Head, NC  
 -

**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 4  
**Sample Location:** Hall at 129  
**Date Collected:** 11/14/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/20/24

**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>	5	67	spores/m <sup>3</sup>	42%
Ascospores	2	27	spores/m <sup>3</sup>	17%
Basidiospores	1	13	spores/m <sup>3</sup>	8%
Smuts, <i>Periconia</i> , Myxomycetes		-	spores/m <sup>3</sup>	-
<i>Penicillium/Aspergillus</i> Group	1	13	spores/m <sup>3</sup>	8%
Hyphal Elements	3	40	spores/m <sup>3</sup>	25%
<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>Arthrinium</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>12</b>	<b>160</b>	<b>spores/m<sup>3</sup></b>	

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### Non-Viable Spore Trap Analysis

Dare County Schools  
 Ian Adams  
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 -

**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 5  
**Sample Location:** CR D106  
**Date Collected:** 11/14/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/20/24

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

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	6	80	spores/m <sup>3</sup>	55%
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores	1	13	spores/m <sup>3</sup>	9%
Smuts, <i>Periconia</i> , Myxomycetes	1	13	spores/m <sup>3</sup>	9%
<i>Penicillium/Aspergillus</i> Group	2	27	spores/m <sup>3</sup>	18%
Hyphal Elements	1	13	spores/m <sup>3</sup>	9%
<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>Arthrinium</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>11</b>	<b>147</b>	<b>spores/m<sup>3</sup></b>	

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**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 7  
**Sample Location:** Hall at Gym  
**Date Collected:** 11/14/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/20/24

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

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	6	80	spores/m <sup>3</sup>	35%
Ascospores	2	27	spores/m <sup>3</sup>	12%
Basidiospores	3	40	spores/m <sup>3</sup>	18%
Smuts, <i>Periconia</i> , Myxomycetes	3	40	spores/m <sup>3</sup>	18%
<i>Penicillium/Aspergillus</i> Group	1	13	spores/m <sup>3</sup>	6%
Hyphal Elements	2	27	spores/m <sup>3</sup>	12%
<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>Arthrinium</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>17</b>	<b>227</b>	<b>spores/m<sup>3</sup></b>	

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**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 9  
**Sample Location:** Cafeteria  
**Date Collected:** 11/14/24  
**Test Requested:** Non-viable spore trap analysis  
**Date Analyzed:** 11/20/24

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

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	1	13	spores/m <sup>3</sup>	11%
Ascospores	1	13	spores/m <sup>3</sup>	11%
Basidiospores	3	40	spores/m <sup>3</sup>	33%
Smuts, <i>Periconia</i> , Myxomycetes	1	13	spores/m <sup>3</sup>	11%
<i>Penicillium/Aspergillus</i> Group	2	27	spores/m <sup>3</sup>	22%
Hyphal Elements		-	spores/m <sup>3</sup>	-
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>	1	13	spores/m <sup>3</sup>	11%
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</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>9</b>	<b>120</b>	<b>spores/m<sup>3</sup></b>	

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



## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

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

**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** - IAQ  
**PO/Claim #:** -

**Sample Number:** 10      **Volume (L):** 75  
**Sample Location:** Hall at 100F      **Percentage of Slide Read:** 100.0%  
**Date Collected:** 11/14/24      **Detection Limit:** 13.33  
**Test Requested:** Non-viable spore trap analysis      **Particulate Level:** moderate-heavy  
**Date Analyzed:** 11/20/24      **Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	5	67	spores/m <sup>3</sup>	9%
Ascospores	6	80	spores/m <sup>3</sup>	11%
Basidiospores	4	53	spores/m <sup>3</sup>	7%
Smuts, <i>Periconia</i> , Myxomycetes	7	93	spores/m <sup>3</sup>	13%
<i>Penicillium/Aspergillus</i> Group	5	67	spores/m <sup>3</sup>	9%
Hyphal Elements	9	120	spores/m <sup>3</sup>	16%
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>	4	53	spores/m <sup>3</sup>	7%
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</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	2	27	spores/m <sup>3</sup>	4%
<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>	9	120	spores/m <sup>3</sup>	16%
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>	4	53	spores/m <sup>3</sup>	7%
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>55</b>	<b>733</b>	<b>spores/m<sup>3</sup></b>	

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



## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

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

**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 11      **Volume (L):** 75  
**Sample Location:** Hall at A109      **Percentage of Slide Read:** 100.0%  
**Date Collected:** 11/14/24      **Detection Limit:** 13.33  
**Test Requested:** Non-viable spore trap analysis      **Particulate Level:** moderate  
**Date Analyzed:** 11/20/24      **Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	2	27	spores/m <sup>3</sup>	10%
Ascospores	1	13	spores/m <sup>3</sup>	5%
Basidiospores	1	13	spores/m <sup>3</sup>	5%
Smuts, <i>Periconia</i> , Myxomycetes	3	40	spores/m <sup>3</sup>	14%
<i>Penicillium/Aspergillus</i> Group	1	13	spores/m <sup>3</sup>	5%
Hyphal Elements	5	67	spores/m <sup>3</sup>	24%
<i>Alternaria</i>		-	spores/m <sup>3</sup>	-
<i>Curvularia</i>	4	53	spores/m <sup>3</sup>	19%
<i>Epicoccum</i>		-	spores/m <sup>3</sup>	-
<i>Cercospora</i>		-	spores/m <sup>3</sup>	-
<i>Arthrinium</i>		-	spores/m <sup>3</sup>	-
Clear Brown		-	spores/m <sup>3</sup>	-
Colorless		-	spores/m <sup>3</sup>	-
<i>Trichocladium</i>	1	13	spores/m <sup>3</sup>	5%
Unidentified	1	13	spores/m <sup>3</sup>	5%
<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>	1	13	spores/m <sup>3</sup>	5%
<i>Tetraploa</i>		-	spores/m <sup>3</sup>	-
<i>Chaetomium</i>		-	spores/m <sup>3</sup>	-
<i>Stachybotrys</i>	1	13	spores/m <sup>3</sup>	5%
		-	spores/m <sup>3</sup>	-
<b>Total Spores</b>	<b>21</b>	<b>280</b>	<b>spores/m<sup>3</sup></b>	

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



## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

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

**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 12      **Volume (L):** 75  
**Sample Location:** Hall at A 104      **Percentage of Slide Read:** 100.0%  
**Date Collected:** 11/14/24      **Detection Limit:** 13.33  
**Test Requested:** Non-viable spore trap analysis      **Particulate Level:** moderate  
**Date Analyzed:** 11/20/24      **Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	2	27	spores/m <sup>3</sup>	40%
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores	1	13	spores/m <sup>3</sup>	20%
Smuts, <i>Periconia</i> , Myxomycetes	2	27	spores/m <sup>3</sup>	40%
<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>Arthrinium</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>5</b>	<b>67</b>	<b>spores/m<sup>3</sup></b>	

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





## Certificate of Laboratory Analysis

### Non-Viable Spore Trap Analysis

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

**Project #:** 24-3287  
**Project Location:** Kitty Hawk Elementary School  
**Project Type:** IAQ  
**PO/Claim #:** -

**Sample Number:** 14      **Volume (L):** 75  
**Sample Location:** CR A 108      **Percentage of Slide Read:** 100.0%  
**Date Collected:** 11/14/24      **Detection Limit:** 13.33  
**Test Requested:** Non-viable spore trap analysis      **Particulate Level:** low  
**Date Analyzed:** 11/20/24      **Notes:**

Spore Identification	Count	Results	Units	Percentage
<i>Cladosporium</i>	3	40	spores/m <sup>3</sup>	43%
Ascospores		-	spores/m <sup>3</sup>	-
Basidiospores	1	13	spores/m <sup>3</sup>	14%
Smuts, <i>Periconia</i> , Myxomycetes	2	27	spores/m <sup>3</sup>	29%
<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>Arthrinium</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>	1	13	spores/m <sup>3</sup>	14%
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>7</b>	<b>93</b>	<b>spores/m<sup>3</sup></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.













**LRC Indoor Testing and Research**  
 140 Iowa Lane, Suite 102  
 Cary, NC 27511  
 (919) 342-4936

## Certificate of Laboratory Analysis

Project #: **24-3287**

**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.

### Chain of Custody available on request

**Direct Microscopic Exam Reporting:**

We use a 400x-600x magnification microscope.

Reporting Quantification Levels are as follows:

Reporting Level	Quantitative Description
Occasional	1-10 per square inch
Few	11-100 per square inch
Moderate	101-1000 per square inch
Numerous	More than 1,000 per square inch

**Submitted By Analyst:**

**Cathy A. Richmond, BS**

11/20/2024