

March 28, 2023

Mr. David Zeck, CEFM  
Facilities Manager  
**Franklin Township Board of Education**  
3228 Coles Mill Rd.  
Franklinville, NJ 08322

**RE: Indoor Air Quality Inspection Report – March 2023**  
**Main Road Elementary School**  
**Epic Project No. 23-1040**

Dear Mr. Zeck:

**Epic Environmental Services, LLC (Epic)** was retained by the Franklin Township Board of Education (District) to perform indoor air quality inspections for five randomly selected areas at the Main Road Elementary School. The inspections consisted of visual observations and the collection of temperature and relative humidity data. Additionally, samples for airborne mold spores were collected in the inspection areas.

The visual inspections focused on signs of moisture, water intrusion, and visible mold growth.

Temperature and relative humidity data were compared to current New Jersey Indoor Air Quality and industry standards.

Epic Environmental performed the inspections on March 17, 2023.

### **Acceptable Temperature and Relative Humidity Criteria**

<b>Acceptable Indoor Temperature Range:</b>	<b>68° - 79° Fahrenheit</b>
<b>Ideal Relative Humidity Range:</b>	<b>30-60%</b>

The following rooms/areas were inspected:

Room 4, Room 58, Room 69, Room 14, Room 22

## **Observations, Comments, and Recommendations**

**Weather Conditions: Cloudy/Cool, 61° Fahrenheit, 40% Relative Humidity**

### **Room 4**

No visible mold was observed.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (23%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
No action required at this time.

### **Room 58**

No visible mold was observed.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (22%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
No action required at this time.

### **Room 69**

Minor mold was observed on the half-circle desks.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (20%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
Recommendations to clean affected areas with mold-resistant cleaning products were made to the district.

### **Room 14**

Mold was observed on the inside of the wooden cabinets (see photo).  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (21%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
Recommendations to clean affected areas with mold-resistant cleaning products were made to the district.

### **Room 22**

Mold was observed on the inside of the wooden cabinets.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (22%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
Recommendations to clean affected areas with mold-resistant cleaning products were made to the district.

## Air Sample Results

Air samples were collected in each inspection area. Airborne mold spore concentrations were near or below background (outside) concentrations in all areas.

See Sample Data Summary


## Conclusions and General Recommendations

- Assure steps are taken to maintain a maximum relative humidity concentration of 60% during the summer months. This will reduce the overall probability of triggering mold activity.
- To prevent respiratory discomfort, maintain a minimum relative humidity of 30% and avoid excessively dry air. In cases where low humidity is causing complaints such as dry throats, a humidifier may be used on a temporary basis.

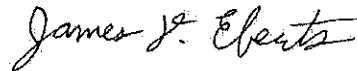
Please do not hesitate to contact me at 856-205-1077 should you have any questions.

An invoice for the completed project is enclosed.

Regards,



Timothy Eberts  
Senior Project Manager  
Epic Environmental Services, LLC



James Eberts  
President  
Epic Environmental Services, LLC

**Sample Data Summary**  
**Air Sampling**

**Air Samples**

**March 17, 2023**

Air Sample Location	Airborne Mold Concentrations (spores/m <sup>3</sup> )	
	Total	Individual Mold Concentrations
Room 4	640	Ascospores 40
		Basidiospores 400
		Cladosporium 200
Room 58	1060	Ascospores 80
		Aspergillus/Penicillium 200
		Basidiospores 300
		Cladosporium 400
		Arthrinium 80
Room 69	1120	Ascospores 80
		Aspergillus/Penicillium 80
		Basidiospores 800
		Cladosporium 80
		Myxomycetes 80
Room 14	960	Ascospores 80
		Basidiospores 800
		Cladosporium 80
Room 22	980	Ascospores 80
		Aspergillus/Penicillium 600
		Basidiospores 300
Outside	1980	Alternaria 80
		Ascospores 200
		Aspergillus/Penicillium 700
		Basidiospores 800
		Cladosporium 200

- Total mold counts found in green indicate a total airborne mold level NEAR or BELOW the outside (background) level.
- Total mold counts found in red indicate a total airborne mold level significantly ABOVE the outside (background) level, and may be an indicator of active mold growth.
- Individual molds listed in green indicate an individual airborne mold level NEAR or BELOW outside the (background) level.
- Individual molds listed in purple were not found in the background sample, but not considered evidence of a water/moisture issue or active mold growth.
- Individual molds listed in red indicate an individual airborne mold level significantly ABOVE the outside (background) level, and may be an indicator of active mold growth in the area.

Airborne mold spore concentrations were near or below background (outside) concentrations.



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-0262

http://www.EMSL.com / cinnmicrolab@emsl.com

EMSL Order: 372304116

Customer ID: EPIC62

Customer PO: 23-1040

Project ID:

Attention: James Eberts  
Epic Environmental Services, LLC  
80 Fork Bridge Road  
Pittsgrove, NJ 08318

Phone: (856) 205-1077  
Fax: (856) 205-0413  
Collected Date: 03/17/2023  
Received Date: 03/18/2023  
Analyzed Date: 03/21/2023

Project: Main Rd ES IAQ

### Test Report: Micro-5(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	372304116-0001			372304116-0002			372304116-0003		
Client Sample ID:	M - 01			M - 02			M - 03		
Volume (L):	25			25			25		
Sample Location:	Outside			Rm 4			Rm 58		
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 (Ulucadium)	1	80	4	-	-	-	-	-	-
Ascospores	3	200	10.1	1*	40*	6.3	1	80	7.5
Aspergillus/Penicillium	9	700	35.4	-	-	-	2	200	18.9
Basidiospores	10	800	40.4	5	400	62.5	4	300	28.3
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	2	200	10.1	3	200	31.3	5	400	37.7
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Arthrinium	-	-	-	-	-	-	1	80	7.5
<b>Total Fungi</b>	<b>25</b>	<b>1980</b>	<b>100</b>	<b>9</b>	<b>640</b>	<b>100</b>	<b>13</b>	<b>1060</b>	<b>100</b>
Hyphal Fragment	1*	40*	-	-	-	-	1*	40*	-
Insect Fragment	2	200	-	-	-	-	-	-	-
Pollen	12	960	-	2*	80*	-	2	200	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	3	-	-	3	-	-	3	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Vincent Iuzzolino, M.S., Laboratory Director  
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. 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. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and meet method specifications unless otherwise noted. 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. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA LAP, LLC-EMLAP Accredited #100194

Initial report from: 03/23/2023 10:08 AM

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



# EMSL Analytical, Inc.

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**Project:** Main Rd ES IAQ

### Test Report: Micro-5(TM) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	372304116-0004			372304116-0005			372304116-0006		
Client Sample ID:	M - 04			M - 05			M - 06		
Volume (L):	25			25			25		
Sample Location:	Rm 69			Rm 14			Rm 22		
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 (Ulucloadium)	-	-	-	-	-	-	-	-	-
Ascospores	1	80	7.1	1	80	8.3	1	80	8.2
Aspergillus/Penicillium	1	80	7.1	-	-	-	8	600	61.2
Basidiospores	10	800	71.4	10	800	83.3	4	300	30.6
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	1	80	7.1	1	80	8.3	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1	80	7.1	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Arthrimum	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	<b>14</b>	<b>1120</b>	<b>100</b>	<b>12</b>	<b>960</b>	<b>100</b>	<b>13</b>	<b>980</b>	<b>100</b>
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	2*	80*	-	2*	80*	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	3	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	3	-	-	3	-	-	3	-

**Sample Comment:** 372304116-0006 Aspergillus conidiophores present in sample.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Vincent Iuzzolino, M.S., Laboratory Director  
or other Approved Signatory

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Initial report from: 03/23/2023 10:06 AM

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