



August 31, 2022

Ms. Margaret Durham
Facilities Manager
Elk Township School District
Fries Mill Road
Franklinville, NJ 08322

RE: Indoor Air Quality Inspection Report – August 2022
Aura Elementary School
Epic Project No. 22-3182A

Dear Ms. Durham:

Epic Environmental Services, LLC (Epic) was retained by the Elk Township School District to perform indoor air quality inspections for six randomly selected areas at the Aura 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 visual inspections and collected air samples on August 19, 2022.

Acceptable Temperature and Relative Humidity

Acceptable Indoor Temperature Range:

68° - 79° Fahrenheit

Ideal Relative Humidity Range:

30-60%

The following rooms/areas were inspected:

Room 112, Room 114, Room 104, Library, Room 201, Room 205

Observations, Comments, and Recommendations

Weather: Sunny, 75° Fahrenheit, 82% Relative Humidity

Room 112

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (34.9%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 114

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (43.4%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 104

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (43.4%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Library

Minor visible mold was observed on shelving units.
No evidence of recent water intrusion was observed.
Relative humidity was slightly elevated (61.0%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
It is recommended that the shelving units be cleaned with an EPA approved fungicide formulated to kill mold and mold spores.

Room 201

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (41.1%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 205

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (47.0%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Air Sample Results

Air samples were collected in six random locations throughout the school. Airborne mold spore concentrations were near or below background (outside) concentrations .

See Sample Data Summary

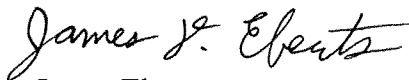
Conclusions

- Assure steps are taken to reduce relative humidity to a maximum of 60% during the summer cooling season. Although most mold activity is not likely to start until extended periods of 75% or higher relative humidity are experienced, it is recommended to have the goal of 60%.

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,



James Eberts
President
Epic Environmental Services, LLC

Sample Data Summary

Air Sampling

Air Samples August 19, 2022

Air Sample Location	Airborne Mold Concentrations (spores/m ³)	
	Total	Individual Mold Concentrations
Room 112	1100	Alternaria 200
		Aspergillus/Penicillium 500
		Basidiospores 80
		Cladosporium 200
		Epicoccum 80
		Rust 40
Room 114	900	Aspergillus/Penicillium 200
		Basidiospores 500
		Cladosporium 200
Room 104	660	Aspergillus/Penicillium 80
		Basidiospores 500
		Cladosporium 80
Library	280	Aspergillus/Penicillium 200
		Basidiospores 80
Room 201	2180	Aspergillus/Penicillium 80
		Basidiospores 1500
		Cladosporium 600
Room 205	2400	Ascospores 80
		Aspergillus/Penicillium 700
		Basidiospores 1400
		Cladosporium 80
		Myxomycetes 40
Outside	11000	Ascospores 600
		Aspergillus/Penicillium 400
		Basidiospores 3800
		Cladosporium 5600
		Epicoccum 200
		Ganoderma 200
		Pithomyces 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: 372213414

Customer ID: EPIC82

Customer PO: 17-2068

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: 08/19/2022
Received Date: 08/22/2022
Analyzed Date: 08/25/2022

Project: Aura School IAQ

Test Report: Micro-STM Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-381, ASTM D7381)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372213414-0001			372213414-0002			372213414-0003		
	A-OUT	A-122	A-114	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Volume (L):	28	28	28						
Sample Location:	Outside	Room 122	Room 114						
Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Alternaria (Urocladium)	-	-	-	2	200	18.2	-	-	-
Ascospores	8	600	5.5	-	-	-	-	-	-
Aspergillus/Penicillium	5	400	3.6	6	500	45.6	2	200	22.2
Basidiospores	47	3600	34.5	1	80	7.3	6	500	55.6
Bipolaris ⁺⁺	-	-	-	-	-	-	-	-	-
Chaetomium ⁺⁺	-	-	-	-	-	-	-	-	-
Claosporium	70	5800	50.9	3	200	18.2	2	200	22.2
Curvularia	-	-	-	-	-	-	-	-	-
Epiloccum	2	200	1.8	1	80	7.3	-	-	-
Fusarium ⁺⁺	-	-	-	-	-	-	-	-	-
Genodermis	2	200	1.8	-	-	-	-	-	-
Mycromyces ⁺⁺	-	-	-	-	-	-	-	-	-
Pitheomyces ⁺⁺	2	200	1.8	-	-	-	-	-	-
Rust	-	-	-	1*	40*	3.6	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Momroniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	136	11000	100	14	1100	100	10	900	100
Hypheal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
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 (1-6)	-	3	-	-	3	-	-	2	-

⁺⁺ 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 reserves 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 violations. 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 variable stopping rates, 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 ASHA-LAP, LLC-EMLAP Accredited #100194

test report form: 08/26/2022 09:37 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com.



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EMSL Order: 372213414
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Analyzed Date: 08/25/2022
Project: Aura School IAQ

Test Report: Micro-STM Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-391, ASTM D7391)

Lab Sample Number:	372213414-0004			372213414-0005			372213414-0006		
Client Sample ID:	A-104			A-LIB			A-201		
Volume (L):	25			25			25		
Sample Location:	Room 104			Library			Room 201		
Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Alternaria (Microcladus)	-	-	-	-	-	-	-	-	-
Asco spores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	1	80	12.1	2	200	71.4	1	80	3.7
Basidiospores	6	500	75.8	1	80	28.6	19	1500	68.8
Bipolates**	-	-	-	-	-	-	-	-	-
Chaetomium**	-	-	-	-	-	-	-	-	-
Claosporium	1	80	12.1	-	-	-	8	600	27.5
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium**	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Mycromyces**	-	-	-	-	-	-	-	-	-
Pitheomyces**	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	8	600	100	3	280	100	28	2100	100
Hyphal Fragment	-	-	-	1	80	-	1*	40*	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Slitn Fragments (1-4)	-	3	-	-	3	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	2	-

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

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

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Sample analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AUSA-LAP, LLC-EM-LAP Accredited #100194

Initial report from: 08/26/2022 09:37 AM

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Project: Aura School IAQ

Test Report: Micro-STM Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-381, ASTM D7381)

Spore Types	Raw Count	Count/m ²	% of Total
Lab Sample Number:	372213414-0007		
Client Sample ID:	A-286		
Volume (L):	28		
Sample Location:	Room 206		
Alternaria (Ulocladium)	-	-	-
Ascopores	1	80	3.5
Aspergillus/Penicillium	9	700	30.4
Basidiospores	18	1400	60.9
Bipolaris ⁺⁺	-	-	-
Chaetomium ⁺⁺	-	-	-
Claosporium	1	80	3.5
Curvularia	-	-	-
Epicoccium	-	-	-
Fusarium ⁺⁺	-	-	-
Genodermis	-	-	-
Mycosporium ⁺⁺	1*	40*	1.7
Phoma ⁺⁺	-	-	-
Rust	-	-	-
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
Total Fungi	20	2280	100
Hyphal Fragment	-	-	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 800x	-	80	-
Analyt. Sensitivity 300x	-	40*	-
Slitn Fragments (1-4)	-	2	-
Fibrous Particulate (1-4)	-	1	-
Background (1-8)	-	2	-

⁺⁺ 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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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ A94-LAP, LLC-EMLAP Accredited #100194

Initial report from: 08/26/2022 09:37 AM

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EMSL ANALYTICAL, P.C.
A Division of Environmental Microbiology Chain of Custody

Environmental Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

372213414

RECEIVED
Westmont EMSL
107 Haddon Avenue
Westmont, NJ 08108
201-956-8580
FAX: (856) 894-2954

Company: Epic Environmental Services, LLC		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party			
Street: 1930 Brown Road					
City/State/Zip: Newfield, NJ 08344					
Report To (Name): James Eberts		Fax: 856-205-0413			
Telephone: 856-205-1077		Email Address: jeberts@epic-env.com			
Project Name/Number: Wentworth BOC - IAQ Inspection - <u>Aura School IAQ</u>					
Please Provide Results: Email		Purchase Order: 17-2068	State Samples Taken: NJ		
Turnaround Time (TAT) Options* - Please Check					
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour		
<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week		
<small>*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements</small>					
Non Culturable Air Samples (Spore Traps)					
<ul style="list-style-type: none"> • M001 Air-O-Cell • M049 BioSIS • M030 Micro S 	<ul style="list-style-type: none"> • M173 Alegro M2 • N003 Burkard • M174 MoldSnap 	<ul style="list-style-type: none"> • M004 Allergenap • M043 Cyclax • M176 Fel's Smart 	<ul style="list-style-type: none"> • M032 Allergenco-D • M002 Cyclex-d • M130 Via-Cell 		
Other Microbiology Test Codes					
<ul style="list-style-type: none"> • M041 Fungal Direct Examination • M005 Viable Fungi ID and Count • M006 Viable Fungi ID and Count (Speciation) • M007 Culturable Fungi • M008 Culturable Fungi (Speciation) • M009 Gram Stain Culturable Bacteria • M010 Bacterial Count and ID - 3 Most Prominent • M011 Bacterial Count and ID - 5 Most Prominent • M013 Sewage Contamination in Buildings 	<ul style="list-style-type: none"> • M014 Endotoxin Analysis • M015 Heterotrophic Plate Count • M100 Real Time Q-PCR-ERMI 30 Panel • M018 Total Coliform (Membrane Filtration) • M020 Fecal Streptococci (Membrane Filtration) • M210-215 Legionella Detection • M026 Recreational Water Screen • M027 Mycotoxin Analysis 	<ul style="list-style-type: none"> • M029 Enterococci • M019 Fecal Coliform • M133 MRSA Analysis • M028 Cryptococcus neoformans Detection • M120 Histoplasma capsulatum Detection • M033-39 Allergen Testing • M044 Group Allergen (Cat, Dog, Cockroach, Dustmites) • Other See Analytical Price Guide 			
Preservation Method (Water):					
Name of Sampler: <u>Casey Eberts</u> James Eberts		Signature of Sampler: <u>Casey Eberts</u>			
Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
A-OUT	Outside	Air	M030	25L	8/19/22 1328
A-122	Room 122	Air			8/19/22 1337
A-114	Room 114	Air			8/19/22 1352
A-104	Room 104	Air			8/19/22 1401
A-LIB	Library	Air			8/19/22 1416
A-201	Room 201	Air			8/19/22 1425
A-205	Room 205	Air	↓	↓	8/19/22 1432
Client Sample # (s): <u>A-OUT, - A-205</u>		Total # of Samples:		<u>7</u>	
Relinquished (Client): <u>Casey Eberts</u>		Date: <u>8/22/22</u>	Time:		
Received (Client): <u>Daniel Steffert</u>		Date: <u>8-22-22</u>	Time: <u>2:55 PM</u>		
Comments/Special Instructions:					
②18					



AIHA

Laboratory Accreditation
Programs, LLC

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Laboratory ID: LAP-100194

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard. General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

<input checked="" type="checkbox"/>	INDUSTRIAL HYGIENE	Accreditation Expires: November 01, 2022
<input checked="" type="checkbox"/>	ENVIRONMENTAL LEAD	Accreditation Expires: November 01, 2022
<input checked="" type="checkbox"/>	ENVIRONMENTAL MICROBIOLOGY	Accreditation Expires: November 01, 2022
<input type="checkbox"/>	FOOD	Accreditation Expires:
<input type="checkbox"/>	UNIQUE SCOPES	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Cheryl O. Morton

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision19: 09/01/2020

Date Issued: 10/31/2020