October 23, 2020

Mr. Thomas Rambone, CEFM
Facilities Manager
Franklin Township Board of Education
3228 Coles Mill Rd.
Franklinville, NJ 08322

RE: Indoor Air Quality Inspection Report – October 2020
Main Road Elementary School
Epic Project No. 20-3198

Dear Mr. Rambone:

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 October 14, 2020.

Acceptable Temperature and Relative Humidity Criteria

Acceptable Indoor Temperature Range:	**68° - 79° Fahrenheit**
Ideal Relative Humidity Range:	**30-60%**

The following rooms/areas were inspected:

Room 6, Room 21, Room 12, Room 54, Room 36

Observations, Comments, and Recommendations

Weather Conditions: Clear, 53° Fahrenheit, 76% Relative Humidity

Room 6
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (43%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 21
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (46%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 12
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (42%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 54
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (42%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 36
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (42%). 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 each inspection area. Airborne mold spore concentrations were near or below background concentrations in all locations.

See Sample Data Summary

Conclusions and General Recommendations

- Assure steps are taken to maintain relative humidity between 30% to 60% during the upcoming winter season. Sensitive persons may experience dryness/general discomfort of the upper respiratory system in low relative humidity situations.

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 October 14, 2020

Air Sample Location	Airborne Mold Concentrations (spores/m³)		
	Total	Individual Mold Concentrations	
Room 6	14640	Ascospores	300
		Basidiospores	13800
		Myxomycetes	500
		Rust	40
Room 21	18140	Ascospores	500
		Aspergillus/Penicillium	500
		Basidiospores	15700
		Cladosporium	200
		Curvularia	200
		Myxomycetes	700
		Rust	40
		Unidentifiable Spores	300
Room 12	10600	Ascospores	300
		Aspergillus/Penicillium	400
		Basidiospores	9520
		Cladosporium	80
Room 54	44060	Ascospores	600
		Aspergillus/Penicillium	600
		Basidiospores	41900
		Cladosporium	600
		Epicoccum	80
		Ganoderma	200
		Myxomycetes	82
Room 36	10000	Aspergillus/Penicillium	600
		Basidiospores	9120
		Cladosporium	200
		Myxomycetes	80
Outside	89740	Ascospores	17001
		Aspergillus/Penicillium	400
		Basidiospores	87200
		Cladosporium	200
		Epicoccum	80
		Ganoderma	80
		Pestalotia	80

- 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 at 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: 372017161
Customer ID: EPIC62
Customer PO: 20-3198
Project ID:

Attention: James Eberts
Epic Environmental Services, LLC
1930 Brown Road
Newfield, NJ 08344

Phone: (856) 205-1077
Fax: (856) 205-0413
Collected Date: 10/14/2020
Received Date: 10/15/2020
Analyzed Date: 10/19/2020

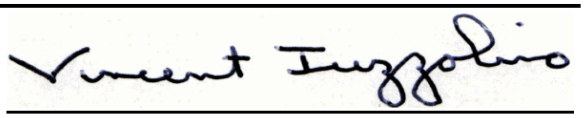
Project: Main Rd. ES Full IAQ

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

Lab Sample Number:	372017161-0001			372017161-0002			372017161-0003		
Client Sample ID:	M-01			M-02			M-03		
Volume (L):	25			25			25		
Sample Location:	Outside			Rm. 6			Rm. 21		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	21	1700	1.9	4	300	2	6	500	2.8
Aspergillus/Penicillium	5	400	0.4	-	-	-	6	500	2.8
Basidiospores	1090	87200	97.2	173	13800	94.3	196	15700	86.5
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	3	200	0.2	-	-	-	3	200	1.1
Curvularia	-	-	-	-	-	-	2	200	1.1
Epicoccum	1	80	0.1	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	1	80	0.1	-	-	-	-	-	-
Myxomycetes++	-	-	-	6	500	3.4	9	700	3.9
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	1*	40*	0.3	1*	40*	0.2
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	4	300	1.7
Zygomycetes	-	-	-	-	-	-	-	-	-
Pestalotia/Pestalotiopsis	1	80	0.1	-	-	-	-	-	-
Yeast	-	-	-	-	-	-	-	-	-
Total Fungi	**1122**	**89740**	**100**	**184**	**14640**	**100**	**227**	**18140**	**100**
Hyphal Fragment	-	-	-	1	80	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	1	-	-	3	-	-	3	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	2	-

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

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



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

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.

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

Initial report from: 10/21/2020 03:40 PM

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

EMSL Analytical, Inc.

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

Lab Sample Number:	372017161-0004			372017161-0005			372017161-0006		
Client Sample ID:	M-04			M-05			M-06		
Volume (L):	25			25			25		
Sample Location:	Rm. 12			Rm. 54			Rm. 36		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	4	300	2.8	7	600	1.4	-	-	-
Aspergillus/Penicillium	5	400	3.8	8	600	1.4	8	600	6
Basidiospores	119	9520	89.8	524	41900	95.1	114	9120	91.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	1	80	0.8	7	600	1.4	2	200	2
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	1	80	0.2	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	2	200	0.5	-	-	-
Myxomycetes++	-	-	-	2*	80*	0.2	1	80	0.8
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Pestalotia/Pestalotiopsis	-	-	-	-	-	-	-	-	-
Yeast	4	300	2.8	-	-	-	-	-	-
Total Fungi	**133**	**10600**	**100**	**551**	**44060**	**100**	**125**	**10000**	**100**
Hyphal Fragment	-	-	-	-	-	-	1*	40*	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	2	-	-	3	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	1	-

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

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

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

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Initial report from: 10/21/2020 03:40 PM

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

Environmental Microbiology Chain of Custody

EMSL ANALYTICAL, INC.

EMSL Order Number *(Lab Use Only)*: 372017161

Westmont, NJ
107 Haddon Avenue
Westmont, NJ 08108
PHONE: (856) 858-4800
FAX: (856) 858-4960

Company: Epic Environmental Services, LLC	**EMSL-Bill to:** ☑ Same ☐ 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@epicenviro.com
Project Name/Number: Main RD ES Full IAQ	
Please Provide Results: Email	**Purchase Order:** 20-3198 **State Samples Taken:** NJ

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements*

Non Culturable Air Samples (Spore Traps)

• **M001** Air-O-Cell	• **M173** Allegro M2	• **M004** Allergenco	• **M032** Allergenco-D	• **M172** Versa Trap
• **M049** BioSIS	• **M003** Burkard	• **M043** Cyclex	• **M002** Cyclex-d	
• **M030** Micro 5	• **M174** MoldSnap	• **M176** Relle Smart	• **M130** Via-Cell	

Other Microbiology Test Codes

• **M041** Fungal Direct Examination	• **M014** Endotoxin Analysis	• **M029** *Enterococci*
• **M005** Viable Fungi ID and Count	• **M015** Heterotrophic Plate Count	• **M019** Fecal Coliform
• **M006** Viable Fungi ID and Count (Speciation)	• **M180** Real Time Q-PCR-ERMI 36 Panel	• **M133** MRSA Analysis
• **M007** Culturable Fungi	• **M018** Total Coliform (Membrane Filtration)	• **M028** *Cryptococcus neoformans* Detection
• **M008** Culturable Fungi (Speciation)	• **M020** Fecal *Streptococcus* (Membrane Filtration)	• **M120** *Histoplasma capsulatum* Detection
• **M009** Gram Stain Culturable Bacteria	• **M210-215** *Legionella* Detection	• **M033-39** Allergen Testing
• **M010** Bacterial Count and ID – 3 Most Prominent	• **M026** Recreational Water Screen	• **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
• **M011** Bacterial Count and ID – 5 Most Prominent	• **M027** Mycotoxin Analysis	• **Other** See Analytical Price Guide
• **M013** Sewage Contamination in Buildings		

Preservation Method (Water):

Name of Sampler: Tim Eberts **Signature of Sampler:** [signature]

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
M-01	Outside	AIR	M030	25L 5Min	10/14/20 0914
M-02	RM 6				0924
M-03	RM 21				0932
M-04	RM 12				0941
M-05	RM 54				0948
M-06	RM 36				1008

Client Sample # (s): M-01 - M-06 **Total # of Samples:** 6

Relinquished (Client): [signature] **Date:** 10/15/20 **Time:** 1250

Received (Client): [signature] **Date:** 10-15-20 **Time:** 1:00

RECEIVED
EMSL
CINNAMINSON, NJ
2020 OCT 15 PM 1:02

Comments/Special Instructions:

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: 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 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

✓	**INDUSTRIAL HYGIENE**	Accreditation Expires: November 01, 2020
✓	**ENVIRONMENTAL LEAD**	Accreditation Expires: November 01, 2020
✓	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: November 01, 2020
☐	**FOOD**	Accreditation Expires:
☐	**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 17025:2005 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.

Beth Bair

Elizabeth Bair
Chairperson, Analytical Accreditation Board

Cheryl O. Morton

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

Revision 17 – 09/11/2018

Date Issued: 11/30/2018