September 26, 2024

Mr. Robert Mortka
Director of Facilities
Black Horse Pike Regional Board of Education
580 Erial Rd.
Blackwood, NJ 08102

RE: Indoor Air Quality Inspection Report – August 2024
Highland High School
Epic Project No. 24-2177

Dear Mr. Mortka:

Epic Environmental Services, LLC (Epic) was retained by the Black Horse Pike Board of Education (District) to perform indoor air quality inspections for six randomly selected areas at Highland High 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, relative humidity, and carbon dioxide (CO2) data were compared to current New Jersey Indoor Air Quality and industry standards.

Epic Environmental performed the inspections on August 22, 2024.

Acceptable Temperature and Relative Humidity Criteria

Acceptable Indoor Temperature Range:	**68° - 79° Fahrenheit**
Ideal Relative Humidity Range:	**30-60%**
Carbon Dioxide Limit:	**1,000 parts per million**

The following rooms/areas were inspected:

Room B121, Room E207, Room A208, Room F200, Room F126, Room C105

Observations, Comments, and Recommendations

Weather: Overcast, 92° Fahrenheit, 44% Relative Humidity

Room B121
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (31%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room E207
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal 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 A208
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (45%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room F200
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal 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 F126
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (45%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room C105
No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within the ideal range (39%). Temperature was within the acceptable range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

General Conclusions and Recommendations

- **Overall Assessment**:
  1. The indoor air quality was found to meet acceptable standards for temperature and humidity as per New Jersey Indoor Air Quality and industry standards.
  2. No visible mold or evidence of water intrusion was observed.
  3. The relative humidity and temperature were within the acceptable range in both areas.

- **Humidity Control**:
  1. Continue to ensure that the relative humidity is maintained at a maximum of 60% during the summer cooling season to prevent future mold issues.

- **Ongoing Monitoring and Preventive Measures**:
  1. While no immediate action is required, regular inspections are advised to monitor indoor air quality and check for any signs of mold or moisture.
  2. Staff should remain vigilant in identifying and reporting any signs of moisture, water intrusion, or mold growth, to maintain a healthy indoor environment.

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,

Tim Eberts
Senior Project Manager
Epic Environmental Services, LLC

James Eberts
President
Epic Environmental Services, LLC

Sample Data Summary
Air Sampling

Air Samples August 22, 2024

Air Sample Location	Airborne Mold Concentrations (spores/m³)		
	Total	Individual Mold Concentrations	
Room B-121	1580	Ascospores	200
		Aspergillus/Penicillium	600
		Basidiospores	300
		Cladosporium	400
		Pithomyces	80
Room E-207	160	Ascospores	80
		Cladosporium	80
Room A-208	240	Alternaria	80
		Basidiospores	80
		Cladosporium	80
Room F-200	680	Ascospores	200
		Aspergillus/Penicillium	80
		Basidiospores	200
		Ganoderma	200
Room F-126	800	Basidiospores	200
		Cladosporium	600
Room C-105	3000	Ascospores	80
		Basidiospores	2600
		Cladosporium	80
		Pithomyces	80
		Rust	80
		Unidentifiable Spores	80
Outside	10340	Ascospores	1200
		Aspergillus/Penicillium	500
		Basidiospores	7300
		Cladosporium	1100
		Ganoderma	80
		Myxomycetes	80
		Rust	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.

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

EMSL Analytical, Inc.

2700 W. Cypress Creek Rd. Ste. C108 Fort Lauderdale, FL 33309
Tel/Fax: (954) 786-9331 / (954) 941-4145
http://www.EMSL.com / ftlauderdalelab@emsl.com

EMSL Order: 562404007
Customer ID: EPIC62
Customer PO: 24-2177
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: 08/22/2024
Received Date: 08/22/2024
Analyzed Date: 08/29/2024

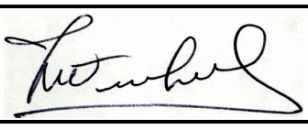
Project: Highland HS IAQ - Routine

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

Lab Sample Number:	562404007-0001			562404007-0002			562404007-0003		
Client Sample ID:	H-01			H-02			H-03		
Volume (L):	25			25			25		
Sample Location:	Outside			B - 121			E - 207		
Spore Types	**Raw Count†**	**Count/m³**	**% of Total**	**Raw Count†**	**Count/m³**	**% of Total**	**Raw Count†**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	15	1200	11.6	2	200	12.7	1	80	50
Aspergillus/Penicillium++	6	500	4.8	7	600	38	-	-	-
Basidiospores	91	7300	70.6	4	300	19	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	14	1100	10.6	5	400	25.3	1	80	50
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	1	80	0.8	-	-	-	-	-	-
Myxomycetes++	1	80	0.8	-	-	-	-	-	-
Pithomyces++	-	-	-	1	80	5.1	-	-	-
Rust	1	80	0.8	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**129**	**10340**	**100**	**19**	**1580**	**100**	**2**	**160**	**100**
Hyphal 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 (1-5)	-	2	-	-	3	-	-	3	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.
† Due to method stopping rules, extrapolated raw counts are reported in parenthesis.

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



Yessica Martinez Seeman, Florida Microbiology Regional Manager

Samples analyzed by EMSL Analytical, Inc. Fort Lauderdale, FL

Initial report from: 08/29/2024 12:39 PM

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

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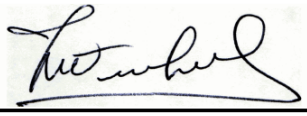
Project: Highland HS IAQ - Routine

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

Lab Sample Number:	562404007-0004			562404007-0005			562404007-0006		
Client Sample ID:	H-04			H-05			H-06		
Volume (L):	25			25			25		
Sample Location:	A - 208			F - 200			F - 126		
Spore Types	**Raw Count†**	**Count/m³**	**% of Total**	**Raw Count†**	**Count/m³**	**% of Total**	**Raw Count†**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	1	80	33.3	-	-	-	-	-	-
Ascospores	-	-	-	3	200	29.4	-	-	-
Aspergillus/Penicillium++	-	-	-	1	80	11.8	-	-	-
Basidiospores	1	80	33.3	3	200	29.4	2	200	25
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	1	80	33.3	-	-	-	8	600	75
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	2	200	29.4	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**3**	**240**	**100**	**9**	**680**	**100**	**10**	**800**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	2	-	-	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.
† Due to method stopping rules, extrapolated raw counts are reported in parenthesis.



Yessica Martinez Seeman, Florida Microbiology Regional Manager

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Project: Highland HS IAQ - Routine

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

Lab Sample Number:	**562404007-0007**		
Client Sample ID:	**H-07**		
Volume (L):	**25**		
Sample Location:	**C - 105**		

Spore Types	Raw Count†	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-
Ascospores	1	80	2.7
Aspergillus/Penicillium++	-	-	-
Basidiospores	32	2600	86.7
Bipolaris++	-	-	-
Chaetomium++	-	-	-
Cladosporium	1	80	2.7
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium++	-	-	-
Ganoderma	-	-	-
Myxomycetes++	-	-	-
Pithomyces++	1	80	2.7
Rust	1	80	2.7
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	1	80	2.7
Zygomycetes	-	-	-
Total Fungi	**37**	**3000**	**100**
Hyphal Fragment	-	-	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	80	-
Analyt. Sensitivity 300x	-	40*	-
Skin Fragments (1-4)	-	2	-
Fibrous Particulate (1-4)	-	1	-
Background (1-5)	-	3	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.
† Due to method stopping rules, extrapolated raw counts are reported in parenthesis.

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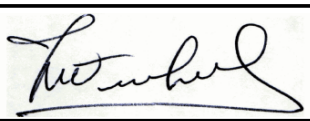

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OrderID: 562404007

Environmental Microbiology Chain of Custody

EMSL Order Number *(Lab Use Only)*: 562404007

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

Company: Epic Environmental Services, LLC (BW)	**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: Highland HS IAQ - Routine	
Please Provide Results: Email	**Purchase Order:** 24-2177 **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 Rotic 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)	• M100 Real Time Q-PCR-ERMI 36	• M133 MRSA Analysis
• M007 Culturable Fungi	Panel	• M026 *Cryptococcus neoformans* Detection
• M008 Culturable Fungi (Speciation)	• M016 Total Coliform (Membrane Filtration)	• M120 *Histoplasma capsulatum* Detection
• M009 Gram Stain Culturable Bacteria	• M020 Fecal *Streptococcus* (Membrane Filtration)	• M033-39 Allergen Testing
• M010 Bacterial Count and ID – 3 Most Prominent	• M210-215 *Legionella* Detection	• M044 Group Allergen (Cat, Dog, Cockroach, Dustmites)
• M011 Bacterial Count and ID – 5 Most Prominent	• M026 Recreational Water Screen	• Other See Analytical Price Guide
• M013 Sewage Contamination in Buildings	• M027 Mycotoxin Analysis	

RECEIVED EMSL MINSON, NJ 24 AUG 22 P1:12:56

Preservation Method (Water):

Name of Sampler: Timothy Eberts **Signature of Sampler:**

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
H-01	Outside	AIR	M030	25L	8/22/24 1009
H-02	B-121				1017
H-03	E-207				1025
H-04	A-208				1031
H-05	F-200				1038
H-06	F-126				1045
H-07	C-105				1057

Client Sample # (s): H-01 - H-07 **Total # of Samples:** 7

Relinquished (Client): **Date:** 8/22/24 **Time:** 1155

Received (Client): WS **Date:** 8/22/24 **Time:** 1655

Comments/Special Instructions:

Due 8/29

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

☑	**INDUSTRIAL HYGIENE**	Accreditation Expires: January 01, 2025
☑	**ENVIRONMENTAL LEAD**	Accreditation Expires: January 01, 2025
☑	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: January 01, 2025
☐	**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 17025:2017 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

Revision20: 06/07/2022

Date Issued: 01/01/2023