

March 1, 2021

Prince George's County Public Schools
Environmental Safety Office
13306 Old Marlboro Pike
Upper Marlboro, MD 20772

Attention: Alex Baylor
alex.baylor@pgcps.org

Subject: Indoor Air Quality Survey
Edward M. Felegy Elementary School
6110 Editors Park Drive
Hyattsville, MD 20782

Mr. Baylor:

On January 27, 2021 and February 15, 2021 a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist conducted an indoor air quality (IAQ) evaluation at Edward M. Felegy Elementary School, a property maintained by Prince George's County Public Schools (PGCPS) located at 6110 Editors Park Drive, Hyattsville, MD 20782. The inspection was performed in accordance with PGCPS contract number IFB 022-19.

Corrective Measures Implemented by PGCPS

On February 15, 2021, as part of this assessment, SaLUT conducted the IAQ evaluation, including IAQ instrumentation screening, and observations in affected areas. Prior to this assessment, in response to an initial assessment, PGCPS implemented the following corrective measures in the Multi-Purpose Room/Gym:

1. Identify and clearly assess the affected area;
2. Remove and replace moldy and stained ceiling tiles;
3. Thorough cleanup throughout the affected areas;
4. Operate air scrubbers with HEPA filters in the impacted areas;
5. Monitor and evaluate clean-up operation to determine effectiveness.

Methodology

The IAQ evaluation conducted by SaLUT included a visual assessment, IAQ instrumentation screening, and a collection of interior air samples for mold in representative locations throughout the building. Additionally, one building exterior environmental air sample was taken for comparison.

Air-borne fungal spore samples were collected on *Air-O-Cell* cassettes using a Buck BioAire calibrated pump. The air samples were taken between three and five feet from the ground. In tandem with collecting mold samples, real-time readings for carbon dioxide, carbon monoxide, temperature and relative humidity were collected using a Fluke 975 Air Meter in representative areas within the facility.

The fungal spore air samples were delivered to EMSL Analytical, Inc. of Beltsville, Maryland for analysis. Fungal spores and particulates in air samples were analyzed by Optical Microscopy (methods EMSL 05-TP-003 and ASTM D7391). The sample chain-of-custody and laboratory reports are attached.

Observations

The table below summarizes the main observations from the IAQ survey at Edward M. Felegy Elementary School, visited on January 27, 2021 and February 15, 2021, respectively.

Table 1.1-Observations

Location	Summary of Observations 01-27-2021
Room A101	2'x2' ceiling tiles and 12" x 12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Room C104	2'x2' ceiling tiles and 12" x 12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
2nd Floor Library	4'x4' ceiling tiles and 12" x 12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Room A204	2'x2' ceiling tiles and 12" x 12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Room 207	2'x2' ceiling tiles and 12" x 12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator;

Location	Summary of Observations 01-27-2021
	Central AC.
Multi-Purpose Room	Exposed roof and 12"x12" tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Main Office	Finished ceiling and carpet floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Student Entrance Lobby	Exposed roof and 12"x12" floor tiles; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Outside Exterior EV Sample	Windy

Table 1.2-Observations

Location	Summary of Observations 02-15-2021
Multi-Purpose Room	Exposed roof and 12"x12" tile floor; No visual signs of microbial growth, and no odor.
Outside Exterior EV Sample	Sunny, windy, chilly and clear sky

Measurements of Indoor Environmental Quality Parameters

Table 2 depicts a summary of average measurements of comfort.

Temperature

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have published recommendations for year round acceptable temperatures in Standard 55-2010 *Thermal Environmental Conditions for Human Occupancy*. The winter comfort range is 20 to 24°C (68 to 75°F) and 23 to 26°C (73 to 79°F) is the summer comfort range. The temperature readings were higher than the ASHRAE recommended ranges in the some representative spaces.

Relative Humidity (RH)

RH is a key factor for mold growth. Mold has the potential of growing on suitable surfaces with humidity levels above 60%. ASHRAE Standard 62.1-2010 *Ventilation for Acceptable Indoor Air Quality* recommends a maximum indoor RH of 65% to preclude the likelihood of condensation on cool surfaces encouraging mold growth. The RH readings were within the ASHRAE recommended ranges in the representative areas.

Carbon Dioxide (CO₂)

Under conditions of maximum occupancy, ASHRAE Standard 62.1-2010, Appendix C, infers that the acceptable CO₂ upper limit is the prevailing outdoor CO₂ concentration plus 700 parts per million (ppm). On the day of the space evaluation, the outdoor (building exterior) CO₂ concentration was approximately 426 ppm therefore indoor concentrations should not exceed approximately 1,126 ppm (700 + 426). The maximum average interior CO₂ concentration detected was 555 ppm in the 2nd Floor Library, a range within the ASHRAE recommendations, per Table 2 below.

Carbon Monoxide (CO)

CO is a colorless and odorless gas that is produced by the incomplete combustion of carbon containing fuels. Oil, gasoline, diesel fuels, wood, coke, and coal are major sources of CO. All registered CO concentrations were below the EPA National Ambient Air Quality Standard (NAAQS) of 9 ppm, per Table 2 below.

**Table 2.1: Edward M. Felegy Elementary School-Instrumental Screening Levels
January 27, 2021 (9:30 AM-11:30 AM)**

Sample Location	Temp °F	RH%	CO ppm	CO ₂ ppm
2nd Floor Library	ASHRAE 68 to 75°F*	ASHRAE <65%	NAAQS 9	ASHRAE 1,126
Room A101	74.0	23.2	0	437
Room C104	75.0	22.7	0	447
2nd Floor Library	77.0	24.5	0	555
Room A204	76.0	21.7	0	453
Room 207	76.0	21.8	0	477
Multi-Purpose Room	74.3	23.7	0	444
Main Office	77.0	24.6	0	508
Student Entrance Lobby	76.1	24.4	0	446
Outside Exterior EV Sample	55.5	41.9	0	426

**Table 2.2: Edward M. Felegy Elementary School-Instrumental Screening Levels
February 15, 2021 (9:30 AM-11:30 AM)**

Sample Location Standards	Temp °F	RH%	CO ppm	CO ₂ ppm
Standards	ASHRAE 68 to 75°F*	ASHRAE <65%	NAAQS 9	ASHRAE 1,127
Multi-Purpose Room	68.6	30.5	0	557
Outside Exterior EV Sample	47.3	39.0	0	523

PM – Particulate Matter size
°F – Degrees Fahrenheit
CO – Carbon Monoxide
ppm – parts per million

$\mu\text{g}/\text{m}^3$ – micrograms per cubic meter
RH% – % Relative Humidity
CO₂ – Carbon Dioxide
* – Winter Comfort Range

Mold-in-Air Samples

There are no definitive regulations or standardized guidelines for addressing airborne mold in an indoor setting. If building systems (ventilation, envelope) are functioning properly, the indoor population profile should mimic what is encountered outdoors and the concentrations should be below the outdoor (building exterior) environmental sample levels.

Table 3.1: Summarizes airborne mold spore sampling results and locations. On January 27, 2021, total mold counts in representative samples (spore count/ m^3 of air) in all the areas inspected were lower than the outdoor concentrations with the exception of Room C104 and the Multi-Purpose Room. Laboratory analysis follows this report (see attachment). Furthermore,

Tables 3.2: Summarizes airborne mold spore sampling results and locations. On February 15, 2021, total mold counts in representative samples (spore count/ m^3 of air) in all the areas inspected were lower than the outdoor concentrations. Laboratory analysis follows this report (see attachment).

**Table 3.1: Edward M. Felegy Elementary School
Measurements of Mold-in-Air Samples
January 27, 2021 (9:30 AM-11:30 AM)**

Spore Types	Room A101	Room C104	2nd Fl Library	Room A204	Room 207
<i>Alternaria (Ulocladium)</i>	-	-	-	-	-
<i>Ascospores</i>	-	-	-	-	-
<i>Aspergillus/Penicillium</i>	-	200	-	-	-
<i>Basidiospores</i>	-	40	-	-	-
<i>Bipolaris++</i>	-	10*	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Cladosporium</i>	-	440	-	40	-
<i>Curvularia</i>	-	30*	-	-	-
<i>Epicoccum</i>	-	-	-	-	-
<i>Fusarium</i>	-	-	-	-	-
<i>Ganoderma</i>	-	-	-	-	-
<i>Myxomycetes++</i>	-	80*	-	10*	-
<i>Pithomyces++</i>	-	40	-	10*	-
<i>Rust</i>	-	40	-	-	-
<i>Scopulariopsis/Microascus</i>	-	-	-	-	-
<i>Stachybotrys/Memnoniella</i>	-	-	-	-	-
<i>Unidentifiable Spores</i>	-	-	-	-	-
<i>Zygomycetes</i>	-	-	-	-	-
<i>Nigrospora</i>	-	-	-	-	-
<i>Hyphal Fragment</i>	-	200	-	-	-
<i>Insect Fragment</i>	10*	40	-	-	-
<i>Pollen</i>	-	90	-	-	-
Total Fungi	10*	1,210	None Detect	60	None Detect

* Spore Counts per cubic meter of air (Counts/m³).

++Includes other spores with similar morphology.

**Table 3.1: Edward M. Felegy Elementary School
Measurements of Mold-in-Air Samples continued
January 27, 2021 (9:30 AM-11:30 AM)**

Spore Types	Multi-Purpose Room	Main Office	Student Entrance Lobby	Outside Exterior EV Sample	Field Blank
<i>Alternaria (Ulocladium)</i>	-	-	-	-	-
<i>Ascospores</i>	-	-	-	-	-
<i>Aspergillus/Penicillium</i>	2,700	200	-	520	-
<i>Basidiospores</i>	40	40	-	200	-
<i>Bipolaris++</i>	-	-	-	-	-
<i>Chaetomium</i>	-	-	-	-	-
<i>Cladosporium</i>	-	90	-	400	-
<i>Curvularia</i>	-	-	-	40	-
<i>Epicoccum</i>	-	10*	-	-	-
<i>Fusarium</i>	-	-	-	-	-
<i>Ganoderma</i>	-	-	-	-	-
<i>Myxomycetes++</i>	-	-	-	-	-
<i>Pithomyces++</i>	-	-	-	-	-
<i>Rust</i>	-	-	-	10*	-
<i>Scopulariopsis/Microascus</i>	-	-	-	-	-
<i>Stachybotrys/Memnoniella</i>	-	-	-	-	-
<i>Unidentifiable Spores</i>	-	-	-	-	-
<i>Zygomycetes</i>	-	-	-	-	-
<i>Nigrospora</i>	-	-	-	-	-
<i>Hyphal Fragment</i>	-	10*	-	-	-
<i>Insect Fragment</i>	-	-	-	-	-
<i>Pollen</i>	-	-	-	-	-
Total Fungi	2,740	350	None Detect	1,170	No Trace

*Spore Counts per cubic meter of air (Counts/m³).

++Includes other spores with similar morphology.

**Table 3.2: Edward M. Felegy Elementary School
Measurements of Mold-in-Air Samples continued
February 15, 2021 (9:30 AM-11:30 AM)**

Spore Types	Multi-Purpose Room	Outside Exterior EV Sample	Field Blank
<i>Alternaria (Ulocladium)</i>	-	-	-
<i>Ascospores</i>	-	10*	-
<i>Aspergillus/Penicillium</i>	-	-	-
<i>Basidiospores</i>	-	300	-
<i>Bipolaris++</i>	-	-	-
<i>Chaetomium</i>	-	-	-
<i>Cladosporium</i>	-	80	-
<i>Curvularia</i>	-	-	-
<i>Epicoccum</i>	-	-	-
<i>Fusarium</i>	-	-	-
<i>Ganoderma</i>	-	-	-
<i>Myxomycetes++</i>	-	80	-
<i>Pithomyces++</i>	-	-	-
<i>Rust</i>	-	-	-
<i>Scopulariopsis/Microascus</i>	-	-	-
<i>Stachybotrys/Memmoniella</i>	-	-	-
<i>Unidentifiable Spores</i>	-	-	-
<i>Zygomycetes</i>	-	-	-
<i>Nigrospora</i>	-	-	-
<i>Hyphal Fragment</i>	-	-	-
<i>Insect Fragment</i>	-	-	-
<i>Pollen</i>	-	-	-
Total Fungi	None Detect	470	No Trace

Findings and Conclusions

The comfort parameters (i.e., temperature, RH, CO₂, and CO levels) in the representative areas conform to ASHRAE and/or NAAQS guidelines with the exception of the temperature. On February 15, 2021, total mold counts in representative area samples (spore count/m³ of air) in all the areas inspected were lower than the outdoor concentrations with the exception of the Multi-Purpose Room, indicating amplified mold growth .

On February 15, 2021, total mold counts in air samples (spore count/m³ of air) in the Multi-Purpose Room were significantly lower than the outdoor concentrations, indicating no amplified mold growth. Based on the observations, mold spore results, and the results of the indoor air quality parameters tested, the corrective actions implemented were determined to be effective.

Thank you for the opportunity to provide industrial hygiene services for PGCPS. If you have any questions, please contact me at 301.595.3783.

Sincerely,



Chaminda Jayatilake, PE, CIH, CSP, CHMM
Certified Industrial Hygienist
Soil and Land Use Technology Inc. (SaLUT)

Attachment

Attachment - Mold Spore Sample Analytical Results and Chain-of-Custody Forms

Attachment

Mold Spore Sample Analytical Results and Chain-of-Custody Forms



EMSL Analytical, Inc.

5221 Militia Hill Road Plymouth Meeting, PA 19462
Tel/Fax: (610) 828-3102 / (610) 828-3122
<http://www.EMSL.com> / plymouthmeetinglab@emsl.com

EMSL Order: 182100571
Customer ID: SALU50
Customer PO:
Project ID:

Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: Edward M. Felegy ES / PGCPs IAQ

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date:
Received Date: 02/15/2021 05:02 PM
Analyzed Date: 02/19/2021

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

Lab Sample Number:	182100571-0001			182100571-0002			182100571-0003		
Client Sample ID:	1E			2			3		
Volume (L):	75			75					
Sample Location:	GYM			Outside Exterior EV Sample			Field Blank		
Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	1*	10*	2.1	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	-	-	-	7	300	63.8	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	2	80	17	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	2	80	17	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	-	None Detect	-	12	470	100	-	No Trace	-
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	0	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	0*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	-	-
Background (1-5)	-	1	-	-	1	-	-	-	-

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

Kevin Ream, Laboratory Manager
or other Approved Signatory

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 met 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.
Samples analyzed by EMSL Analytical, Inc. Plymouth Meeting, PA AIHA-LAP, LLC-EMLAP Accredited #178659

Initial report from: 02/19/2021 11:27 AM

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



EMSL Analytical, Inc.

10768 Baltimore Avenue Beltsville, MD 20705

Tel/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com> / beltsvillelab@emsl.com

EMSL Order: 192100786
Customer ID: SALU50
Customer PO:
Project ID:

Attention: Indika Jayatilake
 SaLUT
 1818 New York Avenue, NE
 Suite 231
 Washington, DC 20002

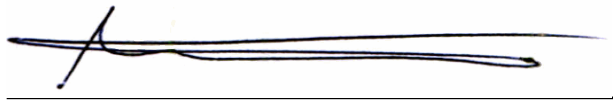
Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 01/27/2021
Received Date: 01/28/2021 09:15 AM
Analyzed Date: 01/28/2021

Project: 19-035 PGPCS IAQ SERVICES EDWARD FELEGY ES

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

Lab Sample Number:	192100786-0001			192100786-0002			192100786-0003		
Client Sample ID:	3132 7214			3132 7208			3132 5229		
Volume (L):	75			75			75		
Sample Location:	2ND FL LIBRARY			RM 207			RM A204		
Spore Types	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	-	-	-	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	1	40	66.7
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	1*	10*	16.7
Pithomyces++	-	-	-	-	-	-	1*	10*	16.7
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	-	None Detect	-	-	None Detect	-	3	60	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	-	-	-	1	-	-	2	-
Fibrous Particulate (1-4)	-	-	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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



Abubakar Barry, Microbiology Laboratory Manager
 or other Approved Signatory

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 met 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.

Samples analyzed by EMSL Analytical, Inc. Beltsville, MD AIHA-LAP, LLC-EMLAP Accredited #102891

Initial report from: 02/02/2021 10:05 AM

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



EMSL Analytical, Inc.

10768 Baltimore Avenue Beltsville, MD 20705

Tel/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com> / beltsvillelab@emsl.com

EMSL Order: 192100786

Customer ID: SALU50

Customer PO:

Project ID:

Attention: Indika Jayatilake

SaLUT

1818 New York Avenue, NE

Suite 231

Washington, DC 20002

Project: 19-035 PGPCS IAQ SERVICES EDWARD FELEGY ES

Phone: (301) 595-3783

Fax: (301) 595-3787

Collected Date: 01/27/2021

Received Date: 01/28/2021 09:15 AM

Analyzed Date: 01/28/2021

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

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	192100786-0004 3132 5272 75 MULTIPURPOSE RM			192100786-0005 3132 5263 75 MAIN OFFICE			192100786-0006 3132 7210 75 RM A101			
	Spore Types	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	61	2700	98.5	4	200	58.8	-	-	-	-
Basidiospores	1	40	1.5	1	40	11.8	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	2	90	26.5	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	1*	10*	2.9	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Total Fungi	62	2740	100	8	340	100	-	None Detect	-	-
Hyphal Fragment	-	-	-	1*	10*	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	1*	10*	-	-
Pollen	-	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	-
Skin Fragments (1-4)	-	1	-	-	3	-	-	1	-	-
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.

Abubakar Barry, Microbiology Laboratory Manager
or other Approved Signatory

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 met 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.

Samples analyzed by EMSL Analytical, Inc. Beltsville, MD AIHA-LAP, LLC-EMLAP Accredited #102891

Initial report from: 02/02/2021 10:05 AM

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



EMSL Analytical, Inc.

10768 Baltimore Avenue Beltsville, MD 20705

Tel/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com> / beltsvillelab@emsl.com

EMSL Order: 192100786

Customer ID: SALU50

Customer PO:

Project ID:

Attention: Indika Jayatilake

SaLUT

1818 New York Avenue, NE

Suite 231

Washington, DC 20002

Project: 19-035 PGPCS IAQ SERVICES EDWARD FELEGY ES

Phone: (301) 595-3783

Fax: (301) 595-3787

Collected Date: 01/27/2021

Received Date: 01/28/2021 09:15 AM

Analyzed Date: 01/28/2021

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

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	192100786-0007 3132 5237 75 RM C104			192100786-0008 3132 5254 75 STUDENT ENT			192100786-0009 3132 7207 75 OUTSIDE SAMPLE			
	Spore Types	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total
Alternaria (Ullocladium)	-	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	4	200	22.7	-	-	-	12	520	44.4	
Basidiospores	1	40	4.5	-	-	-	5	200	17.1	
Bipolaris++	1*	10*	1.1	-	-	-	-	-	-	
Chaetomium	-	-	-	-	-	-	-	-	-	
Cladosporium	10	440	50	-	-	-	9	400	34.2	
Curvularia	2*	30*	3.4	-	-	-	1	40	3.4	
Epicoccum	-	-	-	-	-	-	-	-	-	
Fusarium	-	-	-	-	-	-	-	-	-	
Ganoderma	-	-	-	-	-	-	-	-	-	
Myxomycetes++	6*	80*	9.1	-	-	-	-	-	-	
Pithomyces++	1	40	4.5	-	-	-	-	-	-	
Rust	1	40	4.5	-	-	-	1*	10*	0.9	
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	
Zygomycetes	-	-	-	-	-	-	-	-	-	
Total Fungi	26	880	100	-	None Detect	-	28	1170	100	
Hyphal Fragment	4	200	-	-	-	-	-	-	-	
Insect Fragment	1	40	-	-	-	-	-	-	-	
Pollen	2	90	-	-	-	-	-	-	-	
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-	
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	
Skin Fragments (1-4)	-	4	-	-	1	-	-	1	-	
Fibrous Particulate (1-4)	-	4	-	-	1	-	-	1	-	
Background (1-5)	-	2	-	-	1	-	-	1	-	

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

Abubakar Barry, Microbiology Laboratory Manager
or other Approved Signatory

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 met 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.

Samples analyzed by EMSL Analytical, Inc. Beltsville, MD AIHA-LAP, LLC-EMLAP Accredited #102891

Initial report from: 02/02/2021 10:05 AM

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



EMSL Analytical, Inc.

10768 Baltimore Avenue Beltsville, MD 20705

Tel/Fax: (301) 937-5700 / (301) 937-5701

<http://www.EMSL.com> / beltsvillelab@emsl.com

EMSL Order: 192100786

Customer ID: SALU50

Customer PO:

Project ID:

Attention: Indika Jayatilake

SaLUT

1818 New York Avenue, NE

Suite 231

Washington, DC 20002

Project: 19-035 PGPCS IAQ SERVICES EDWARD FELEGY ES

Phone: (301) 595-3783

Fax: (301) 595-3787

Collected Date: 01/27/2021

Received Date: 01/28/2021 09:15 AM

Analyzed Date: 01/28/2021

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

Lab Sample Number:	192100786-0010		
Client Sample ID:	3132 5233		
Volume (L):			
Sample Location:	FIELD BLANK		
Spore Types	Raw Count	Count/M³	% of Total
Alternaria (Ullocladium)	-	-	-
Ascospores	-	-	-
Aspergillus/Penicillium	-	-	-
Basidiospores	-	-	-
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	-	-	-
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	-	-	-
Pithomyces++	-	-	-
Rust	-	-	-
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
Total Fungi	-	No Trace	-
Hyphal Fragment	-	-	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	0	-
Analyt. Sensitivity 300x	-	0*	-
Skin Fragments (1-4)	-	-	-
Fibrous Particulate (1-4)	-	-	-
Background (1-5)	-	-	-

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

Abubakar Barry, Microbiology Laboratory Manager
or other Approved Signatory

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 met 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.

Samples analyzed by EMSL Analytical, Inc. Beltsville, MD AIHA-LAP, LLC-EMLAP Accredited #102891

Initial report from: 02/02/2021 10:05 AM

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



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS - TRADEMARK

Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

182100571

PHONE:

FAX:

Company Name: SaLUT Inc.				EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**			
Street: 1818 New York Ave NE Suite 231				Third Party Billing requires written authorization from third party			
City: Washington		State/Province: DC		Zip/Postal Code: 20002		Country: USA	
Report To (Name): Indika Jayatilake				Telephone #: 301-595-3783			
Email Address: ijayatilake@salutinc.com				Fax #:		Purchase Order:	
Project Number/Location: Edward M Felegy ES / PGCPS IAQ				Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email			
Location Address: 6110 Editors Park DR Hyattsville, MD 20782				Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential			
*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements							
Sterile, Sodium Thiosulfate Preserved Bottle Used: <input type="checkbox"/> Biocide Used in Source (specify): <input type="checkbox"/>							
Public Water Supply Samples: <input type="checkbox"/> Note: All results may automatically be reported to DOH if required by state.							
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 checked="" type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week
Microbiology Test Codes							
M001 Air-O-Cell		M174 MoldSnap		M024 Pseudomonas aeruginosa (MFT*)		M115 Sewage Screen - Water (P/A****)	
M030 Micro 5		M032 Allergenco-D		M015 Heterotrophic Plate Count		M116 Sewage Screen - Water (MPN**)	
M041 Fungal Direct Examination				M017 Total Coliform & E. coli (Colilert P/A****)		M117 Sewage Screen - Swab (P/A****)	
M169 Pollen ID & Enumeration				M018 Total Coliform & E. coli (MFT*)		M013 Sewage Screen - Swab (MFT*)	
M280 Dust Characterization Level-1				M114 Total Coliform & E. coli Enumeration (Colilert MPN**)		M133 Methicillin-resistant Staph. aureus (MRSA)	
M281 Dust Characterization Level-2				M019 Fecal Coliform (MFT*)		M031 Rapid-growing non-TB Mycobacteria Detection & Enumeration	
M005 Viable Fungi- Air Samples (Genus ID & Count)				M020 Fecal Streptococcus (MFT*)		M014 Endotoxin Analysis	
M006 Viable Fungi- Air Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)				M029 Enterococci (MFT*)		M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)	
M007 Culturable fungi - Surface Samples (Genus ID & Count)				M129 Enterococci (Enterolert P/A****)		Other See Analytical Price Guide	
M008 Culturable fungi - Surface Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)				M180 Real Time qPCR-ERMI 36 Panel		Legionella Analysis Please use EMSL Legionella COC	
M009 Bacteria Culture Gram Stain & Count				M025 Sewage Screen -Water (MFT*)			
M010 Bacteria Count & ID - 3 Most Prominent				*MFT= Membrane Filtration Technique			
M011 Bacteria Count & ID - 5 Most Prominent				**MPN= Most Probable Number			
M012 Pseudomonas aeruginosa (P/A****)				***P/A= Presence/Absence			
Name of Sampler: Jude Fonseca				Signature of Sampler:			
Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (only for waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
1 E	GYM	Air		M001	75L	2/15/2020	
02	Outside Exterior EV Sample	Air		M001	75L	2/15/2020	
03	Field Blank	Air		N/A	N/A	2/15/2020	
		Air		M001			
		Air		M001			
		Air		M001			
Client Sample # (s):		Total # of Samples: 03		Samples Received Chilled? Yes / No			
Relinquished (Client):		Date:		Time:		RECEIVED EMSL ANALYTICAL, INC. BETHESDA, MD 201 FEB 15 P 5:02	
Received (Lab): <i>L. Fonseca Prep Box</i>		Date:		Time:			
Comments/Special Instructions:							



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

192100786

EMSL Analytical, Inc.
10768 Baltimore Avenue

Beltsville, MD 20705

PHONE: (301) 937-5700

FAX: (301) 937-5701

Company Name: SalUT			EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If 'Bill To' is different, note instructions in Comments <i>Third Party Billing requires written authorization from third party.</i>				
Street: 1818 New York Avenue, NE Suite 231							
City: Washington	State/Province: DC	Zip/Postal Code: 20002	Country: US				
Report To (Name): Indika Jayatilake			Telephone #: 301-595-3783				
Email Address: ijayatilake@salutinc.com			Fax #: 301-595-3787		Purchase Order:		
Project Name/Number: 19-035 PGPCS IAQ Services Edward Felegy & S			Please Provide Results: <input type="checkbox"/> Fax <input type="checkbox"/> Email				
U.S. State Samples Taken: MD		Project Zip Code:		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential			
Sterile, Sodium Thiosulfate Preserved Bottle Used: <input type="checkbox"/> Biocide Used in Source (specify): <input type="checkbox"/>							
Public Water Supply Samples: <input type="checkbox"/> Note: All results may automatically be reported to DOH if required by state.							
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 checked="" type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week	
Microbiology Test Codes							
M001 Air-O-Cell M030 Micro 5 M041 Fungal Direct Examination M169 Pollen ID & Enumeration M280 Dust Characterization Level-1 M281 Dust Characterization Level-2 M005 Viable Fungi- Air Samples (Genus ID & Count) M006 Viable Fungi- Air Samples (Includes <i>Penicillium</i> , <i>Aspergillus</i> , <i>Cladosporium</i> , <i>Stachybotrys</i> Species ID & Count) M007 Culturable fungi - Surface Samples (Genus ID & Count) M008 Culturable fungi - Surface Samples (Includes <i>Penicillium</i> , <i>Aspergillus</i> , <i>Cladosporium</i> , <i>Stachybotrys</i> Species ID & Count) M009 Bacteria Culture Gram Stain & Count M010 Bacteria Count & ID - 3 Most Prominent M011 Bacteria Count & ID - 5 Most Prominent		M174 MoldSnap M032 Allergenco-D M012 <i>Pseudomonas aeruginosa</i> (P/A***) M024 <i>Pseudomonas aeruginosa</i> (MFT*) M015 Heterotrophic Plate Count M017 Total Coliform & <i>E. coli</i> (Colilert P/A***) M018 Total Coliform & <i>E. coli</i> (MFT*) M114 Total Coliform & <i>E. coli</i> Enumeration (Colilert MPN**) M019 Fecal Coliform (MFT*) M020 Fecal <i>Streptococcus</i> (MFT*) M029 <i>Enterococci</i> (MFT*) M129 <i>Enterococci</i> (Enterolert P/A***) M180 Real Time qPCR-ERMI 36 Panel M025 Sewage Screen -Water (MFT*)		M115 Sewage Screen - Water (P/A***) M116 Sewage Screen - Water (MPN**) M117 Sewage Screen - Swab (P/A***) M013 Sewage Screen - Swab (MFT*) M133 <i>Methicillin-resistant Staph. aureus</i> (MRSA) M031 Rapid-growing non-TB <i>Mycobacteria</i> Detection & Enumeration M014 Endotoxin Analysis M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite) Other See Analytical Price Guide Legionella Analysis Please use EMSL <i>Legionella</i> COC			
*MFT= Membrane Filtration Technique **MPN= Most Probable Number ***P/A= Presence/Absence							
Name of Sampler: Jay Nchang			Signature of Sampler:				
Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
Example A1	Kitchen Sink/Tap	Water	<input checked="" type="checkbox"/> P <input type="checkbox"/> NP	M017	100 mL	9/1/13 4:00 PM	
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
Client Sample # (s):		Total # of Samples: 10		Samples Received Chilled? (Lab Use Only)			Yes / No
Relinquished (Client): Jay Nchang		Date: 7/27/21		Time: 5:45			
Received (Lab): J. Kimball Prop Box		Date:		Time:			
Comments/Special Instructions:							



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL Analytical, Inc.
10768 Baltimore Avenue

Beltsville, MD 20705

PHONE: (301) 937-5700

FAX: (301) 937-5701

Additional pages of the chain of custody are only necessary if needed for additional sample information.

Sample #	Sample Location/Description	Sample Type	Potable/NonPotable (Only for Waters)	Test Code	Volume/Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
3132 7214	2 nd Fl Library	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 12:57	
3132 7208	Room 207	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 13:06	
3132 5229	Room A204	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 13:15	
3132 5272	Multi Purpose Room	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 13:22	
3132 5263	Main Office	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 13:37	
3132 7210	Room A101	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 15:39	
3132 5237	Room C104	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 13:45	
3132 5254	Student Entrance	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 13:48	
3132 7207	Outside Sample	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21 13:55	
3132 5233	Field Blank	Air	<input type="checkbox"/> P <input type="checkbox"/> NP	M001	75L	1/27/21	
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				
			<input type="checkbox"/> P <input type="checkbox"/> NP				

Comments/Special Instructions:

EMSL Analytical, Inc's Laboratory Terms and Conditions are incorporated into this chain of custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc constitutes acceptance and acknowledgment of all terms and conditions by Customer