Soil and Land Use Technology, Inc.
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Telephone: (301) 595-3783
www.salutinc.com

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
Francis T. Evans Elementary School
6720 Old Alexandria Ferry Road
Clinton, MD 20735

Mr. Baylor:

On February 3, 2021 and February 17, 2021 a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist conducted an indoor air quality (IAQ) evaluation at Francis T. Evans Elementary School, a property maintained by Prince George's County Public Schools (PGCPS) located at 6720 Old Alexandria Ferry Road, Clinton, MD 20735. The inspection was performed in accordance with PGCPS contract number IFB 022-19.

Corrective Measures Implemented by PGPCS

On February 17, 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, DGS implemented the following corrective measures in the Main office and Classroom 31:

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 Francis T. Evans Elementary School, visited on February 3, 2021. And February 17, 2021, respectively.

Table 1.1-Observations

Location	Summary of Observations 02-3-2021
Classroom 31	2′ x 2′ ceiling tiles and 12″x 12″ and 9″x 9″tile floor; Water Stained ceiling ; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Classroom 53	2′ x 2′ ceiling tiles and 12″x12″ 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.
Multi-Purpose Room	2′ x 4′ 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.

Main Office	2'x 4' ceiling tiles and 12"x 12" tile floor; Water Stained ceiling ; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Library	2' x 4' ceiling tiles 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.
Outside Exterior EV Sample	Cloudy, chilly and windy

Table 1.2-Observations

Location	**Summary of Observations 02-17-2021**
Main office	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; Stained ceiling tiles were replaced;
Classroom 31	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; Stained ceiling tiles were replaced
Outside Exterior EV Sample	It was 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 within the ASHRAE recommended.

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 (CO_2)

Under conditions of maximum occupancy, ASHRAE Standard 62.1-2010, Appendix C, infers that the acceptable CO_2 upper limit is the prevailing outdoor CO_2 concentration

plus 700 parts per million (ppm). On February 3, 2021, the outdoor (building exterior) CO_2 concentration was approximately 492 ppm therefore indoor concentrations should not exceed approximately 1,192 ppm (700 + 492). The maximum average interior CO_2 concentration detected was 531 ppm in Classroom 31, 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 2.1 below.

Table 2.1: Francis T. Evans Elementary School-Instrumental Screening Levels February 3, 2021 (9:30 AM-11:30 AM)

Sample Location	Temp °F	RH%	CO ppm	CO_2 ppm
Standards	**ASHRAE 68 to 75°F***	**ASHRAE <65%**	**NAAQS 9**	**ASHRAE 1,192**
Classroom 31	69.8	24.9	0	531
Classroom 53	70.7	27.2	0	465
Multi-Purpose Room	68.8	31.9	0	466
Main Office	68.3	29.4	0	473
Library	68.9	25.7	0	475
Outside Exterior EV Sample	48.2	40.2	0	492

Table 2.2: Francis T. Evans Elementary School-Instrumental Screening Levels February 17, 2021 (9:30 AM-11:30 AM

Sample Location Standards	Temp °F	RH%	CO ppm	CO2 ppm
Standards	**ASHRAE 68 to 75°F***	**ASHRAE <65%**	**NAAQS 9**	**ASHRAE 1,127**
Main office	66.2	23.3	0	553
Classroom 31	66.2	22.5	0	504
Outside Exterior EV Sample	44.6	26.3	0	444

PM – Particulate Matter size
°F – Degrees Fahrenheit
CO – Carbon Monoxide
ppm – parts per million
µg/m³ – micrograms per cubic meter
RH% - % Relative Humidity
CO_2 – 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 February 3, 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 Classroom 31and Main Office. Laboratory analysis follows this report (see attachment). Furthermore,Tables 3.2: Summarizes airborne mold spore sampling results and locations. On February 17, 2021, total mold counts in representative samples (spore count/m3 of air) in all the areas inspected were lower than the outdoor concentrations. Laboratory analysis follows this report (see attachment).

Table 3.1: Francis T. Evans Elementary School
Measurements of Mold-in-Air Samples
February 3, 2021 (9:30 AM-11:30 AM)

Spore Types	Classroom 31	Classroom 53	Multi-Purpose Room	Main Office
Alternaria (Ulocladium)	-	-	-	-
Ascospores	-	-	-	-
Aspergillus/Penicillium	-	-	-	-
Basidiospores	40	-	40	200
Bipolaris++	-	-	-	-
Chaetomium	-	-	-	-
Cladosporium	40	-	-	940
Curvularia	-	-	-	-
Epicoccum	-	-	-	-
Fusarium	-	-	-	-
Ganoderma	-	-	-	-
Myxomycetes++	40	-	-	-
Pithomyces++	-	-	-	-
Rust	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-
Stachybotrys/Memnoniella	-	-		80
Unidentifiable Spores	-	-	-	-
Zygomycetes	-	-	-	-
Nigrospora	-	-	-	-
Hyphal Fragment	-	-	-	10*
Insect Fragment	80	-	40	40
Pollen	-	-	-	-
Total Fungi	**200**	**None Detect**	**80**	**1,270**

* Spore Counts per cubic meter of air (Counts/m^3).
++Includes other spores with similar morphology.

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Table 3.1: Francis T. Evans Elementary School
Measurements of Mold-in-Air Samples continued
February 3, 2021 (9:30 AM-11:30 AM)

Spore Types	Library	Outside Exterior EV Sample	Field Blank	
Alternaria (Ulocladium)	-	-	-	
Ascospores	-	-	-	
Aspergillus/Penicillium	-	-	-	
Basidiospores	-	40	-	
Bipolaris++	-	-	-	
Chaetomium	-	-	-	
Cladosporium	80	-	-	
Curvularia	-	-	-	
Epicoccum	-	-	-	
Fusarium	-	-	-	
Ganoderma	-	-	-	
Myxomycetes++	-	-	-	
Pithomyces++	-	-	-	
Rust	-	-	-	
Scopulariopsis/Microascus	-	-	-	
Stachybotrys/Memnoniella	-	-	-	
Unidentifiable Spores	-	-	-	
Zygomycetes	-	-	-	
Nigrospora	-	-	-	
Hyphal Fragment	40	10*	-	
Insect Fragment	-	-	-	
Pollen	-	-	-	
Total Fungi	**120**	**50**	**No Trace**	

*Spore Counts per cubic meter of air (Counts/m^3).
++Includes other spores with similar morphology.

Table 3.2: Francis T. Evans Elementary School
Measurements of Mold-in-Air Samples continued

February 17, 2021 (9:30 AM-11:30 AM

Spore Types	Main office	Classroom 31	Outside Exterior EV Sample	Field Blank
Alternaria (Ulocladium)	-	-	40	-
Ascospores	-	-	-	-
Aspergillus/Penicillium	-	-	-	-
Basidiospores	40	-	-	-
Bipolaris++	-	-	-	-
Chaetomium	-	-	-	-
Cladosporium	-	-	90	-
Curvularia	-	-	-	-
Epicoccum	-	-	10*	-
Fusarium	-	-	-	-
Ganoderma	-	-	-	-
Myxomycetes++	-	-	200	-
Pithomyces++	-	-	-	-
Rust	--	-	40	-
Scopulariopsis/Microascus	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-
Unidentifiable Spores	-	-	-	-
Zygomycetes	-	-	-	-
Nigrospora	-	-	-	-
Hyphal Fragment	-	-	-	-
Insect Fragment	-	-	-	-
Pollen	40	-	-	-
Total Fungi	40	None Detect	420	No Trace

Findings and Conclusions

The comfort parameters (i.e., temperature, RH, CO_2, and CO levels) in the representative areas conform to ASHRAE and/or NAAQS guidelines. On February 3, 2021 total mold counts in representative area samples (spore count/m^3 of air) in all the areas inspected were lower than the outdoor concentrations with the exception of Classroom 31and Main Office, indicating amplified mold growth.

On February 17, 2021, total mold counts in air samples (spore count/m3 of air) in the Classroom 31 and Main Office 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.

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EMSL Order: 192101006
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Project ID:

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Collected Date: 02/03/2021
Received Date: 02/03/2021 04:50 PM
Analyzed Date: 02/09/2021

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

Lab Sample Number:	192101006-0001			192101006-0002			192101006-0003		
Client Sample ID:	31917733			31917674			31917695		
Volume (L):	75			75			75		
Sample Location:	CLASSRM 31			OUTSIDE SAMPLE			MULTI PURPOSE RM		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	1	40	33.3	1	40	100	1	40	100
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	1	40	33.3	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1	40	33.3	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**3**	**120**	**100**	**1**	**40**	**100**	**1**	**40**	**100**
Hyphal Fragment	-	-	-	1*	10*	-	-	-	-
Insect Fragment	2	80	-	-	-	-	1	40	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	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

Initial report from: 02/09/2021 11:48 AM

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

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Analyzed Date: 02/09/2021

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

Lab Sample Number:	192101006-0004			192101006-0005			192101006-0006		
Client Sample ID:	31917681			31916671			31917734		
Volume (L):	75			75			75		
Sample Location:	MAIN OFFICE			LIBRARY			CLASS RM 53		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	5	200	16.4	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	23	940	77	2	80	100	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	2	80	6.6	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**30**	**1220**	**100**	**2**	**80**	**100**	**-**	**None Detect**	**-**
Hyphal Fragment	1*	10*	-	1	40	-	-	-	-
Insect Fragment	1	40	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	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

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Collected Date: 02/03/2021
Received Date: 02/03/2021 04:50 PM
Analyzed Date: 02/09/2021

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

Lab Sample Number:	**192101006-0007**								
Client Sample ID:	**31917728**								
Volume (L):									
Sample Location:	**FIELD BLANK**								
Spore Types	**Raw Count**	**Count/M³**	**% of Total**						
Alternaria (Ulocladium)	-	-	-						
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

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Received Date: 02/19/2021 08:30 AM
Analyzed Date: 02/23/2021

Project: PGPCS IAQ Reports 19-035 Francis T Evans Elementary School

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

Lab Sample Number:	192101472-0001			192101472-0002			192101472-0003		
Client Sample ID:	3162 6442			3162 6490			3162 4819		
Volume (L):	75			75			75		
Sample Location:	Main office			Classroom 31			Outside sample		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	1	40	9.5
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	1	40	100	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	2	90	21.4
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	1*	10*	2.4
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	5	200	47.6
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	1	40	9.5
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Bispora	-	-	-	-	-	-	1	40	9.5
Total Fungi	**1**	**40**	**100**	**-**	**None Detect**	**-**	**11**	**420**	**100**
Hyphal Fragment	-	-	-	1*	10*	-	-	-	-
Insect Fragment	-	-	-	1*	10*	-	-	-	-
Pollen	1	40	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	2	-

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

Abubakar Barry, Microbiology Laboratory Manager or other Approved Signatory

Initial report from: 02/23/2021 06:51 PM

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10768 Baltimore Avenue Beltsville, MD 20705

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

EMSL Order: 192101472
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: 02/17/2021
Received Date: 02/19/2021 08:30 AM
Analyzed Date: 02/23/2021

Project: PGPCS IAQ Reports 19-035 Francis T Evans Elementary School

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

Lab Sample Number:	**192101472-0004**								
Client Sample ID:	**3162 6402**								
Volume (L):									
Sample Location:	**Field Blank**								
Spore Types	**Raw Count**	**Count/M³**	**% of Total**						
Alternaria (Ulocladium)	-	-	-						
Ascospores	-	-	-						
Aspergillus/Penicillium	-	-	-						
Basidiospores	-	-	-						
Bipolaris++	-	-	-						
Chaetomium	-	-	-						
Cladosporium	-	-	-						
Curvularia	-	-	-						
Epicoccum	-	-	-						
Fusarium	-	-	-						
Ganoderma	-	-	-						
Myxomycetes++	-	-	-						
Pithomyces++	-	-	-						
Rust	-	-	-						
Scopulariopsis/Microascus	-	-	-						
Stachybotrys/Memnoniella	-	-	-						
Unidentifiable Spores	-	-	-						
Zygomycetes	-	-	-						
Bispora	-	-	-						
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

Initial report from: 02/23/2021 06:51 PM

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

OrderID: 192101006

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Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): 192101006

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Beltsville, MD 20705
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FAX: (301) 937-5701

Company Name: SaLUT	EMSL-Bill to: ☑ Same ☐ Different If 'Bill To' is different, note instructions in Comments *Third Party Billing requires written authorization from third party.*
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: PGPCS IAQ Reports 19-035 Francis Stevens ES	Please Provide Results: ☐ Fax ☑ Email
U.S. State Samples Taken: MD / Project Zip Code:	Connecticut Samples: ☐ Commercial ☐ Residential

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify):** ☐

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by state.**

Turnaround Time (TAT) Options - Please Check

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

Microbiology Test Codes

M001 Air-O-Cell **M174** MoldSnap **M030** Micro 5 **M032** Allergenco-D **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 *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count) **M007** Culturable fungi – Surface Samples (Genus ID & Count) **M008** Culturable fungi – Surface Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count) **M009** Bacteria Culture Gram Stain & Count **M010** Bacteria Count & ID - 3 Most Prominent **M011** Bacteria Count & ID - 5 Most Prominent	**M012** *Pseudomonas aeruginosa* (P/A***) **M024** *Pseudomonas aeruginosa* (MFT*) **M015** Heterotrophic Plate Count **M017** Total Coliform & *E. coli* (Colilert P/A***) **M018** Total Coliform & *E. coli* (MFT*) **M114** Total Coliform & *E. coli* Enumeration (Colilert MPN**) **M019** Fecal Coliform (MFT*) **M020** Fecal *Streptococcus* (MFT*) **M029** *Enterococci* (MFT*) **M129** *Enterococci* (Enterolert P/A***) **M180** Real Time qPCR-ERMI 36 Panel **M025** Sewage Screen –Water (MFT*) *MFT= Membrane Filtration Technique **MPN= Most Probable Number ***P/A= Presence/Absence	**M115** Sewage Screen - Water (P/A***) **M116** Sewage Screen - Water (MPN**) **M117** Sewage Screen - Swab (P/A***) **M013** Sewage Screen - Swab (MFT*) **M133** *Methicillin-resistant Staph. aureus* (MRSA) **M031** Rapid-growing non-TB *Mycobacteria* Detection & Enumeration **M014** Endotoxin Analysis **M044** Group Allergen (Cat, Dog, Cockroach, Dust Mite) Other See Analytical Price Guide ***Legionella* Analysis** Please use EMSL *Legionella* COC

Name of Sampler: Jay Nchang **Signature of Sampler:** [signature]

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	☒ P ☐ NP	M017	100 mL	9/1/13 4:00 PM	
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				

Client Sample # (s): -	**Total # of Samples:** 7	**Samples Received Chilled? Yes / No** (Lab Use Only)
Relinquished (Client): Jay Nchang	**Date:** 1/8/2021	**Time:** 16:30
Received (Lab): [signature] DB	**Date:**	**Time:**

Comments/Special Instructions:

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Page 1 of 2

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OrderID: 192101006

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EMSL Order Number (*Lab Use Only*): 192101006

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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)
3191 7733	Classroom 31	Air	☐P ☐NP	MOD1	75L	14:47 2/3/21	
3191 7674	Outside Sample	Air	☐P ☐NP	MOD1	75L	14:55 2/3/21	
3191 7695	Multi Purpose RM	Air	☐P ☐NP	MOD1	75L	15:00 2/3/21	
3191 7681	Main Office	Air	☐P ☐NP	MOD1	75L	15:37 2/3/21	
3188 6671	Library	Air	☐P ☐NP	MOD1	75L	15:41 2/3/21	
3191 7734	Class Room 53	Air	☐P ☐NP	MOD1	75L	15:45 2/3/21	
3191 7728	Field blank	Air	☐P ☐NP	MOD1		15:46 2/3/21	
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
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Comments/Special Instructions:

OrderID: 192101472

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10768 Baltimore Avenue
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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: PGPCS IAQ Reports 19-035 Francis T Evans Elementary School	**Please Provide Results:** ☐ Fax ☑ Email
U.S. State Samples Taken: MD **Project Zip Code:**	**Connecticut Samples:** ☐ Commercial ☐ Residential

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify):** ☐

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Microbiology Test Codes

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M030 Micro 5	**M032** Allergenco-D

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 *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M007 Culturable fungi - Surface Samples (Genus ID & Count)
M008 Culturable fungi - Surface Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M009 Bacteria Culture Gram Stain & Count
M010 Bacteria Count & ID - 3 Most Prominent
M011 Bacteria Count & ID - 5 Most Prominent

M012 *Pseudomonas aeruginosa* (P/A***)
M024 *Pseudomonas aeruginosa* (MFT*)
M015 Heterotrophic Plate Count
M017 Total Coliform & *E. coli* (Colilert P/A***)
M018 Total Coliform & *E. coli* (MFT*)
M114 Total Coliform & *E. coli* Enumeration (Colilert MPN**)
M019 Fecal Coliform (MFT*)
M020 Fecal *Streptococcus* (MFT*)
M029 *Enterococci* (MFT*)
M129 *Enterococci* (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 *Methicillin-resistant Staph. aureus* (MRSA)
M031 Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M014 Endotoxin Analysis
M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
Other See Analytical Price Guide
***Legionella* Analysis** Please use EMSL *Legionella* COC

*MFT= Membrane Filtration Technique
**MPN= Most Probable Number
***P/A= Presence/Absence

Name of Sampler: Rahul Ekanayake **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	☒ P ☐ NP	M017	100 mL	9/1/13 4:00 PM	
3162 6442	Main office	Air	☐ P ☐ NP	M001	75L	02/17/21 11:57 A.M	
3162 6490	Classroom 31	Air	☐ P ☐ NP	M001	75L	02/17/21 12:05 P.M	
3162 4819	Outside Sample	Air	☐ P ☐ NP	M001	75L	02/17/21 12:10 P.M	
3162 6402	field Blank	Air	☐ P ☐ NP	M001	N/A	02/17/21 12:15 P.M	
			☐ P ☐ NP				

Client Sample # (s): - 04 **Total # of Samples:** 04 **Samples Received Chilled?** Yes / No (Lab Use Only)

Relinquished (Client): Rahul Ekanayake **Date:** 02/17/21 **Time:** 6:30 PM

Received (Lab): **Date:** **Time:**

Comments/Special Instructions:

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Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (C) (Lab Use Only)
			☐P ☐NP				
			☐P ☐NP				
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