Soil and Land Use Technology, Inc.
1818 New York Ave. NE, Ste 231, Washington, DC 20002
Telephone: (301) 595-3783
www.salutinc.com

March 2, 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
Overlook Full Spanish Immersion School
3298 Curtis Drive #1258
Temple Hills, MD 20748

Mr. Baylor:

On November 20, 2020 and February 17, 2021, a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist conducted an indoor air quality (IAQ) evaluation at Overlook Full Spanish Immersion School, a property maintained by Prince George's County Public Schools (PGCPS) located at 3298 Curtis Drive #1258, Temple Hills, MD 20748. 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 Cafeteria and the Hallway next to Classroom M2:

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 Overlook Elementary School, visited on November 20, 2020 and February 17, 2021, respectively.

Table 1.1-Observations

Location	Summary of Observations 11-20-2020
Cafeteria	White 2'x4' ceiling tiles and beige 1'x1' floor tile; No visual signs of microbial growth, and mild odor; Stained ceiling tile; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Hallway next to Classroom 08	2'x4' ceiling tiles and beige 1'x1' tile floor; No visual signs of microbial growth, and mild odor; Stained ceiling tile; No visible dust on floor/other furniture surfaces; No visible dust around ventilator and central AC.
2nd floor Hallway next to Classroom 5	White 2'x4' ceiling tiles and beige 1'x 1' floor tile; No visual signs of microbial growth, and mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator and central AC.
Hallway next to Main Office	2'x4' ceiling tiles and beige 1'x1' tile floor; Water stained ceiling tile; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator and central AC.
Hallway next to Classroom M2	2'x4' ceiling tiles and beige 1'x 1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator and central AC.
Outside Exterior EV Sample	Windy and cold.

Table 1.2-Observations

Location	Summary of Observations 02-17-2021
Cafeteria	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; Stained ceiling tiles were replaced.
Hallway next to Classroom M2	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	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 ranges in the representative spaces with the exception of the Hallway next to Classroom 8 and the Hallway next to Classroom M2.

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 November 20, 2020, the outdoor (building exterior) CO_2 concentration was approximately 442 ppm therefore indoor concentrations should not exceed approximately 1,142 ppm (700 + 442). The maximum average interior CO_2 concentration detected was 506 ppm in the Cafeteria, a range within the ASHRAE recommendations, per Table 2.1 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: Overlook Elementary School, Instrumental Screening Levels November 20, 2020 (9:30AM-11:30 AM)

Sample Location	Temp ^{0}F	RH%	CO ppm	CO_2 ppm
Standards	**ASHRAE 68 to 75°F***	**ASHRAE <65%**	**NAAQS 9**	**ASHRAE 1,142**
Cafeteria	72.5	32.4	0	506
Hallway next to Classroom 8	65.3	28.2	0	443
2nd floor Hallway next to Classroom 05	68.0	36.6	0	455
Hallway next to Main Office	69.8	35.5	0	461
Hallway next to Classroom M2	59.0	38.1	0	439
Exterior of the Building - next to the Entrance	53.6	36.8	0	442

Table 2.2: Overlook Elementary School, Instrumental Screening Levels February 17, 2021 (9:30AM-11:30 AM)

Sample Location	Temp ^{0}F	RH%	CO ppm	CO_2 ppm
Standards	**ASHRAE 68 to 75°F***	**ASHRAE <65%**	**NAAQS 9**	**ASHRAE 1,138**
Cafeteria	74.3	17.6	0	560
Hallway next to Classroom M2	64.4	22.0	0	479
Exterior of the Building - next to the Entrance	39.2	32.6	0	438

PM – Particulate Matter size
°F – Degrees Fahrenheit
CO – Carbon Monoxide
ppm – parts per million
µg/m^3 – 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 November 20, 2020, 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 3.2: 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: Overlook Elementary School - Measurements of Mold-in-Air Samples November 20, 2020 (9:30 AM-11:30 AM)

Spore Types	Cafeteria	Hallway next to Classroom 8	2nd floor Hallway next to Classroom 5	Hallway next to Main Office
Alternaria (Ulocladium)	-	-	-	-
Ascospores	100	-	-	-
Aspergillus/Penicillium	200	40	200	200
Basidiospores	570	300	410	-
Bipolaris++	-	-	-	570
Chaetomium	-	-	-	-
Cladosporium	200	100	100	-
Curvularia	-	-	-	200
Epicoccum	-	-	-	-
Fusarium	-	-	-	-
Ganoderma	-	-	-	-
Myxomycetes++	30*	-	40	10*
Pithomyces++	-	-	-	-
Rust	-	-	10*	-
Scopulariopsis/Microascus	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-
Unidentifiable Spores	-	-	-	-
Zygomycetes	-	-	-	-
Nigrospora	-	-	-	-
Hyphal Fragment	40	40	-	80
Insect Fragment	-	40	-	30
Pollen	-	-	-	-
Total Fungi	**1,140**	**520**	**760**	**1,090**

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

Table 3.1: Overlook Elementary School – Measurements of Mold-in-Air Samples continued November 20, 2020 (9:30 AM-11:30 AM)

Spore Types	Hallway next to Classroom M2	Exterior of the Building - next to the Entrance	Field Blank	
Alternaria (Ulocladium)	-	40	-	
Ascospores	-	80	-	
Aspergillus/Penicillium	1,900	100	-	
Basidiospores	200	1,900	-	
Bipolaris++	-	-	-	
Chaetomium	-	-	-	
Cladosporium	10*	400	-	
Curvularia	-	-	-	
Epicoccum	-	-	-	
Fusarium	-	-	-	
Ganoderma	-	-	-	
Myxomycetes++	40	100	-	
Pithomyces++	-	-	-	
Rust	-	-	-	
Scopulariopsis/Microascus	-	-	-	
Stachybotrys/Memnoniella	-	-	-	
Unidentifiable Spores	-	-	-	
Zygomycetes	-	-	-	
Nigrospora	-	-	-	
Hyphal Fragment	-	80	-	
Insect Fragment	200	-	-	
Pollen	-	-	-	
Total Fungi	**2,350**	**2,700**	**No Trace**	

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

Table 3.2: Overlook Elementary School – Measurements of Mold-in-Air Samples continued February 17, 2021 (9:30 AM-11:30 AM)

Spore Types	Cafeteria	Hallway next to Classroom M2	Exterior of the Building - next to the Entrance	Field Blank	
Alternaria (Ulocladium)	-	-	40	-	
Ascospores	10*	-	-	-	
Aspergillus/Penicillium	-	-	-	-	
Basidiospores	40	-	-	-	
Bipolaris++	-	-	-	-	
Chaetomium	-	-	-	-	
Cladosporium	-	-	790	-	
Curvularia	-	-	-	-	
Epicoccum	-	-	-	-	
Fusarium	-	-	-	-	
Ganoderma	-	-	-	-	
Myxomycetes++	-	-	100	-	
Pithomyces++	-	-	-	-	
Rust	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Nigrospora	-	-	-	-	
Hyphal Fragment	-	-	-	-	
Insect Fragment	-	-	-	-	
Pollen	-	-	90	-	
Total Fungi	**50**	**No Trace**	**1,020**	**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 with the exception of the temperature in the Hallway next to Classroom 8 and the Hallway next to Classroom M2. On November 20, 2020, total mold counts in representative area samples (spore count/m^3 of air) in all the areas inspected were lower than the outdoor concentrations, indicating no amplified mold growth.

On February 17, 2021, total mold counts in air samples (spore count/m3 of air) in the cafeteria 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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http://www.EMSL.com / beltsvillelab@emsl.com

EMSL Order: 192011574
Customer ID: SALU50
Customer PO:
Project ID:

Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: OVERLOOK ES PGCPS IAQ

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 11/20/2020
Received Date: 11/20/2020 08:30 AM
Analyzed Date: 11/27/2020

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

Lab Sample Number:	192011574-0001			192011574-0002			192011574-0003		
Client Sample ID:	01			02			03		
Volume (L):	75			75			75		
Sample Location:	CAFETERIA			H/W NEXT TO C/R 8			2ND FLOOR H/W NEXT TO C/R 5		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	3	100	8.9	-	-	-	-	-	-
Aspergillus/Penicillium	6	200	17.9	1	40	9.1	6	200	26.3
Basidiospores	14	570	50.9	8	300	68.2	10	410	53.9
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	4	200	17.9	3	100	22.7	3	100	13.2
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	2*	30*	2.7	-	-	-	1	40	5.3
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	1*	10*	1.3
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Pestalotia/Pestalotiopsis	1*	10*	0.9	-	-	-	-	-	-
Torula-like	1*	10*	0.9	-	-	-	-	-	-
Total Fungi	**31**	**1120**	**100**	**12**	**440**	**100**	**21**	**760**	**100**
Hyphal Fragment	1	40	-	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

Initial report from: 11/28/2020 04:22 PM

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

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

EMSL Order: 192011574
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Project ID:

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Project: OVERLOOK ES PGCPS IAQ

Phone: (301) 595-3783
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Collected Date: 11/20/2020
Received Date: 11/20/2020 08:30 AM
Analyzed Date: 11/27/2020

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

Lab Sample Number:	192011574-0004			192011574-0005			192011574-0006		
Client Sample ID:	04			05			06		
Volume (L):	75			75			75		
Sample Location:	H/W NEXT TO MAIN OFFICE			H/W NEXT TO C/R M2			OUTSIDE EXTERIOR EV 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	1.5
Ascospores	4	200	20.4	-	-	-	2	80	3.1
Aspergillus/Penicillium	-	-	-	47	1900	88.4	3	100	3.8
Basidiospores	14	570	58.2	4	200	9.3	46	1900	72.5
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	6	200	20.4	1*	10*	0.5	9	400	15.3
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1*	10*	1	1	40	1.9	3	100	3.8
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Pestalotia/Pestalotiopsis	-	-	-	-	-	-	-	-	-
Torula-like	-	-	-	-	-	-	-	-	-
Total Fungi	**25**	**980**	**100**	**53**	**2150**	**100**	**64**	**2620**	**100**
Hyphal Fragment	2	80	-	-	-	-	2	80	-
Insect Fragment	2*	30*	-	4	200	-	-	-	-
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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Project: OVERLOOK ES PGCPS IAQ

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 11/20/2020
Received Date: 11/20/2020 08:30 AM
Analyzed Date: 11/27/2020

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

Lab Sample Number:	**192011574-0007**								
Client Sample ID:	**07**								
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	-	-	-						
Pestalotia/Pestalotiopsis	-	-	-						
Torula-like	-	-	-						
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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Collected Date: 02/17/2021
Received Date: 02/19/2021 08:30 AM
Analyzed Date: 02/23/2021

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

Lab Sample Number:	192101469-0001			192101469-0002			192101469-0003		
Client Sample ID:	3162 6399			3162 6427			3162 6287		
Volume (L):	75			75			75		
Sample Location:	Cafeteria			Hallway next to Classroom M2			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	4.1
Ascospores	1*	10*	20	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	1	40	80	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	18	790	81.4
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	3	100	10.3
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Pestalotia/Pestalotiopsis	-	-	-	-	-	-	1	40	4.1
Total Fungi	**2**	**50**	**100**	**-**	**None Detect**	**-**	**23**	**970**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	2	90	-
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 06:55 PM

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: 192101469
Customer ID: SALU50
Customer PO:
Project ID:

Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: PGPCS IAQ Reports 19-035 Overlook Elementary School

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

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

Lab Sample Number:	**192101469-0004**										
Client Sample ID:	**3162 6441**										
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	-	-	-								
Pestalotia/Pestalotiopsis	-	-	-								
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 06:55 PM

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

OrderID: 192101469

EMSL ANALYTICAL, INC.
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Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): 192101469

EMSL Analytical, Inc.
10768 Baltimore Avenue

Beltsville, MD 20705
PHONE: (301) 937-5700
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 OVERLOOK 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):** ☐

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*)

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:** [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	
3162 6399	Cafeteria	Air	☐ P ☐ NP	M001	75L	02/17/21 11.03 A.M	
3162 6427	Hallway Next to Classroom M2	Air	☐ P ☐ NP	M001	75L	02/17/21 11.08 A.M	
3162 6287	Outside Sample	Air	☐ P ☐ NP	M001	75L	02/17/21 11.14 A.M	
3162 6441	Field Blank	Air	☐ P ☐ NP	M001	N/A	02/17/21 11.20 A.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 P.M.

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

Comments/Special Instructions:

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FEB 17 P 5:00

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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)
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
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			☐P ☐NP				
			☐P ☐NP				

Comments/Special Instructions:

Page ______ of ______

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.

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OrderID: 192011574

Microbiology Chain of Custody

EMSL ANALYTICAL, INC.
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EMSL Order Number (*Lab Use Only*): 192011574

PHONE:
FAX:

Company Name: SaLUT Inc.	**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 Ave NE Suite 231	
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: Overlook ES / PGCPS IAQ	**Please Provide Results:** ☐ Fax ☒ Email
Location Address: 3298 Curtis Dr #1258, Temple Hills, MD 20748	**Connecticut Samples:** ☐ Commercial ☐ 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: ☐ **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
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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: Jude Fonseka **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)
01	Cafeteria	Air		M001	75L	11/19/2020	
02	H/W next to C/R 8	Air		M001	75L	11/19/2020	
03	2nd floor H/W next to C/R 5	Air		M001	75L	11/19/2020	
04	H/W next to Main office	Air		M001	75L	11/19/2020	
05	H/W next to C/R M2	Air		M001	75L	11/19/2020	
06	Outside Exterior EV Sample	Air		M001	75L	11/19/2020	

Client Sample # (s): - **Total # of Samples:** 07 **Samples Received Chilled?** Yes / No

Relinquished (Client): **Date:** **Time:**

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

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2020 NOV 20 A 6 10

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Microbiology Chain of Custody

EMSL Order Number *(Lab Use Only)*:

PHONE:
FAX:

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
07	Field Blank	Air		N/A	N/A	11/19/2020	

Comments/Special Instructions:

Page 2 of _____