Soil and Land Use Technology, Inc.

1818 New York Ave. NE, Ste 231, Washington, DC 20002 Telephone: (301) 595-3783
www.salutinc.com

June 7, 2019

Prince George's County Public School (PGCPS)
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 Alexander Ferry Road
Clinton, MD 20735

Mr. Baylor:

On May 15, 2019, 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 School (PGCPS) located at 6720 Old Alexander Ferry Road, Clinton, MD 20735. The inspection was performed in accordance with PGPCS contract number IFB 022-19.

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. A MiniRAE 3000-photoionization detector (PID) was used to measure total volatile organic compounds (TVOC).

Respirable particulate in air (size classes PM2.5µ and PM10µ) was measured using the Particles Plus 8306 Handheld Particle Counter which was calibrated prior to sampling.

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 May 15, 2019.

Table 1-Observations

Location	Summary of Observations 5-15-2019
Classroom 44	2'x2' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Unit ventilator and HVAC system.
Classroom 55	2'x2' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Dusty vents; Unit ventilator and HVAC system.
Classroom 62	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Unit ventilator and HVAC system.
Classroom 34	2'x2' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Unit ventilator and HVAC system.
Classroom 23	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Unit ventilator and HVAC system.
Classroom 14	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Unit ventilator and HVAC system.
Library	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Unit ventilator and HVAC system.

Measurements of Indoor Environmental Quality Parameters

Table 2 depicts a summary of average measurements of comfort parameters and respirable particulates.

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 some readings which were lower than the ASHRAE comfort level.

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 the day of the space evaluation, the outdoor (building exterior) CO_2 concentration was approximately 607 ppm therefore indoor concentrations should not exceed approximately 1,307 ppm (700 + 607). The maximum average interior CO_2 concentration detected was 983 ppm in the 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.

Respirable Particulates

Direct reading particulate monitoring did not identify a condition of concern. Particulate concentrations for two mass ranges with EPA ambient air quality guidelines (PM2.5 and PM10) were below their respective NAAQS levels. On May 15, 2019, the highest average PM2.5 concentration during the monitoring period was 0.004 mg/m^3 (4 $\mu g/m^3$) in Classroom 23. This is compared to the NAAQS primary standard for PM2.5 of 12 $\mu g/m^3$ annual mean. The highest average PM10 concentration during the same period was 0.076 mg/m^3 (76 $\mu g/m^3$) in Classroom 14. This is compared to NAAQS standard for PM10 of 150 $\mu g/m^3$ 24 hour average.

Total Volatile Organic Chemicals (TVOC)

LEED's standard of 500 µg/m³ for TVOC (ANSI/ASHRAE Standard 62.1-2010) concentrations per the instrument's level of detection for a healthy commercial building were used as the standard for TVOCs for this survey. Concentrations below this value can be considered as "background levels" and, at such low concentrations, they are extremely unlikely to cause any adverse health conditions to the occupants. Generally, values below 3000 µg/m³ are unlikely to cause more than mild irritation or headaches, but to date no recognized industry standard has been established for TVOCs. Perfumes, colognes, and air fresheners as well as certain cleaning chemicals can all cause temporary increases in TVOC readings. TVOC readings cannot be used to establish OSHA limits on specific VOCs or be attributed to specific compounds.

Table 2: Francis T. Evans Elementary School Instrumental Screening Levels
May 15, 2019

Sample Location	Temp °F	RH%	CO ppm	CO_2 ppm	PM 2.5 mg/m³	PM 10 mg/m³	TVOC ppm
Standards	**ASHRAE 68 to 75°F**	**ASHRAE <65%**	**NAAQS 9**	**ASHRAE 1,307**	**NAAQS 0.012**	**NAAQS 0.150**	**1.0**
Classroom 44	64.4	54.8	0	745	0.003	0.038	0.4
Classroom 55	68.2	49.8	0	725	0.003	0.064	0.3
Classroom 62	68.9	52.4	0	870	0.003	0.060	0.3
Classroom 34	68	48	0	586	0.002	0.010	0
Classroom 23	68.9	48.1	0	920	0.004	0.045	0
Classroom 14	69.8	50.8	0	976	0.003	0.076	0.1
Library	69.5	47.8	0	983	0.003	0.051	0
Exterior of the building- Next to the entrance	60.8	52.2	0	607	0.003	0.031	0

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
*** - Summer 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.

Tables 3 summarizes airborne mold spore sampling results and locations. On May 15, 2019, 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: Francis T. Evans Elementary School - Measurements of Mold-in-Air Samples May 15, 2019

Spore Types	Outdoor next to the Building Entrance Area	Classroom 14	Classroom 23	Classroom 34
Alternaria (Ulocladium)	90	-	-	-
Ascospores	4,300	830	2,100	1,100
Aspergillus/Penicillium	-	-	-	200
Basidiospores	2,100	1,600	3,600	3,100
Bipolaris++	90	-	-	-
Chaetomium	-	-	-	-
Cladosporium	19,700	-	90	-
Curvularia	-	-	40	-
Epicoccum	6,980	-	-	-
Fusarium	-	-	-	-
Ganoderma	-	-	-	-
Myxomycetes++	40	40	-	-
Pithomyces	-	-	-	-
Rust	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-
Unidentifiable Spores	-	-	-	-
Zygomycetes	-	-	-	-
Bispora	-	-	-	-
Hyphal Fragment	-	100	100	-
Insect Fragment	-	-	-	-
Pollen	200	10	-	-
Total Fungi	**33,300**	**2,470**	**5,830**	**4,400**

*** Spore Counts per cubic meter of air (Counts/m^3)**

Table 3: Francis T. Evans Elementary School - Measurements of Mold-in-Air Samples continued

May 15, 2019

Spore Types	Classroom 44	Classroom 55	Classroom 62	Field Blank
Alternaria (Ulocladium)	-	-	-	-
Ascospores	480	4,450	90	-
Aspergillus/Penicillium	-	200	-	-
Basidiospores	2,300	4,410	870	-
Bipolaris++	-	-	-	-
Chaetomium	-	-	-	-
Cladosporium	100	100	-	-
Curvularia	-	40	-	-
Epicoccum	-	-	-	-
Fusarium	-	-	-	-
Ganoderma	-	-	-	-
Myxomycetes++	300	200	100	-
Pithomyces	-	-	-	-
Rust	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-
Unidentifiable Spores	-	-	-	-
Zygomycetes	-	-	-	-
Botrytis	-	-	-	-
Hyphal Fragment	300	200	100	-
Insect Fragment	-	-	-	-
Pollen	-	30	-	-
Total Fungi	**3,180**	**9,400**	**1,060**	**No Trace**

*** Spore Counts per cubic meter of air (Counts/m^3)**

Findings and Conclusions

The comfort parameters (i.e., temperature, RH, CO_2, and CO levels) and respirable particulates in representative areas conform to ASHRAE and/or NAAQS guidelines with the exception of the some readings which were lower than the ASHRAE comfort level. On May 15, 2019, 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.

Recommendations

Based on the observations of the IAQ survey performed at Francis T. Evans Elementary School, SaLUT recommends the following precautionary measures to address the indoor air quality concerns documented:

1. Thorough cleanup dusty vents in Classroom 55.

Thank you for the opportunity to provide industrial hygiene services for the 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.

2500 Gateway Centre Blvd., Suite 600 Morrisville, NC 27560

Tel/Fax: (919) 465-3900 / (919) 465-3950

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

EMSL Order: 291905202
Customer ID: SALU50
Customer PO:
Project ID:

Attn: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 218A
Washington, DC 20002
Project: PGPCS IAQ/19-035 Francis T Evans ES

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected: 05/15/2019
Received: 05/15/2019
Analyzed: 05/20/2019

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

	291905202-0001			291905202-0002			291905202-0003		
Lab Sample Number:									
Client Sample ID:	27953637			27953702			27953676		
Volume (L):	75			75			75		
Sample Location	Inside the Classroom 44 Area			Inside the Classroom 55 Area			Inside the Classroom 62 Area		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	11	480	15.1	102	4450	47.3	2	90	8.5
Aspergillus/Penicillium	-	-	-	5	200	2.1	-	-	-
Basidiospores	52	2300	72.3	101	4410	46.9	20	870	82.1
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	3	100	3.1	3	100	1.1	-	-	-
Curvularia	-	-	-	1	40	0.4	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	6	300	9.4	5	200	2.1	3	100	9.4
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**72**	**3180**	**100**	**217**	**9400**	**100**	**25**	**1060**	**100**
Hyphal Fragment	7	300	-	5	200	-	3	100	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	2*	30*	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	3	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	2	-

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

Alan Goldstein, Ph.D., Laboratory Manager
or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. 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. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Morrisville, NC AIHA-LAP, LLC--EMLAP Lab 173741

Initial report from: 05/20/2019 17:29:52

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

EMSL Analytical, Inc.

2500 Gateway Centre Blvd., Suite 600 Morrisville, NC 27560

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1818 New York Avenue, NE
Suite 218A
Washington, DC 20002
Project: PGPCS IAQ/19-035 Francis T Evans ES

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected: 05/15/2019
Received: 05/15/2019
Analyzed: 05/20/2019

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

Lab Sample Number:	291905202-0004			291905202-0005			291905202-0006		
Client Sample ID:	27953653			27953645			28394281		
Volume (L):	75			75			75		
Sample Location	Inside the Classroom 34 Area			Inside the Classroom 23 Area			Inside the Classroom 14 Area		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	25	1100	25	47	2100	36	19	830	33.6
Aspergillus/Penicillium	5	200	4.5	-	-	-	-	-	-
Basidiospores	70	3100	70.5	82	3600	61.7	37	1600	64.8
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	2	90	1.5	-	-	-
Curvularia	-	-	-	1	40	0.7	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	1	40	1.6
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**100**	**4400**	**100**	**132**	**5830**	**100**	**57**	**2470**	**100**
Hyphal Fragment	-	-	-	3	100	-	9*	100*	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	1*	10*	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	3	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	2	-
Background (1-5)	-	2	-	-	2	-	-	2	-

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

Alan Goldstein, Ph.D., Laboratory Manager
or other approved signatory

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Initial report from: 05/20/2019 17:29:52

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

Lab Sample Number:	291905202-0007			291905202-0008			291905202-0009		
Client Sample ID:	28394321			27953696			27953672		
Volume (L):	75			75					
Sample Location	Inside the Library Area			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)	-	-	-	2	90	0.3	-	-	-
Ascospores	28	1200	41.4	99	4300	12.9	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	33	1400	48.3	47	2100	6.3	-	-	-
Bipolaris++	-	-	-	2	90	0.3	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	451	19700	59.2	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	7	300	10.3	160	6980	21	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	1	40	0.1	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**68**	**2900**	**100**	**762**	**33300**	**100**	**-**	**No Trace**	**-**
Hyphal Fragment	3*	40*	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	2*	30*	-	5	200	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	0	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	0*	-
Skin Fragments (1-4)	-	3	-	-	1	-	-	-	-
Fibrous Particulate (1-4)	-	2	-	-	1	-	-	-	-
Background (1-5)	-	2	-	-	1	-	-	-	-

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

Alan Goldstein

Alan Goldstein, Ph.D., Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Morrisville, NC AIHA-LAP, LLC--EMLAP Lab 173741

Initial report from: 05/20/2019 17:29:52

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

Client: SaLUT Test: M001 Air-O-Cell #Samples: 9
Order: 291905202 Project: PGPCS IAQ/19-035 Francis T Evans ES
Disposition: ***Discard after 6/14/2019***

CAL, INC.
) NORTH
NJ 08077
20-3675
FAX:(856) 786-0262

Company Name: Soil and Land Use Technology 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., Suite 231	
City: Washington **State/Province:** DC	**Zip/Postal Code:** **Country:**
Report To (Name): INDIKA JAYATILAKE	**Telephone #:**
Email Address: ijayatilake@salutinc.com	**Fax #:** **Purchase Order:**
Project Name/Number: PGPCS IAQ/19-035 Francis T Evans ES	**Please Provide Results:** ☐ Fax ☐ Email
U.S. State Samples Taken: MD **Project Zip Code:**	**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
M030 Micro 5
M174 MoldSnap
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: Chaminda Jayatilake **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)
			☒ P ☐ NP				
27953637	Inside the Classroom 44 area	Air	☐ P ☐ NP	M001	75L	5-15-2019 8:00AM-10AM	
27953702	Inside the Classroom 55 area	Air	☐ P ☐ NP	M001	75L	"	
27953676	Inside the Classroom 62 area	Air	☐ P ☐ NP	M001	75L	"	
27953653	Inside the Classroom 34 area	Air	☐ P ☐ NP	M001	75L	"	
27953645	Inside the Classroom 23 area	Air	☐ P ☐ NP	M001	75L	"	
28394281	Inside the Classroom 14 area	Air	☐ P ☐ NP	M001	75L	"	

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

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

Received (Lab): [signature] **Date:** 5/15/19 **Time:** 3:10 PM

Comments/Special Instructions:

Page 1 of 2

(9)

Microbiology Chain of Custody

EMSL ANALYTICAL, INC.
ORTH
)8077
-3675
262

SaLUT
PGPCS IAQ/19-035 Francis T Evans ES
5/15/2019 15:10
M001 Air-O-Cell

TAT: 1 Week
Air

Order ID: 291905202
No Samples: 9
Due: 05/22 3:10 PM
Fax: 301-595-3787

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)
28394321	Inside the library area	Air	☐ P ☐ NP	M001	75L	"	
27953696	Outside exterior EV sample	Air	☐ P ☐ NP	M001	75L	"	
27953672	Field Blank	Air	☐ P ☐ NP	M001	N/A	"	
			☐ P ☐ NP				
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Comments/Special Instructions:

Page ______ of ______