

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

Baden Elementary School 13601 – Baden Westwood Rd.

Baden, MD 20613

Mr. Baylor:

On May 15, 2019, a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist conducted an indoor air quality (IAQ) evaluation at Baden Elementary School, a property maintained by Prince George's County Public School (PGCPS) located at 13601 – Baden Westwood Rd., Baden, MD 20613. 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).



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Respirable particulate in air (size classes PM2.5 $\mu$  and PM10 $\mu$ ) 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 Baden Elementary School, visited on May 15, 2019.

**Table 1-Observations** 

Location	Summary of Observations 5-15-2019
Classroom 04	Dust on AC unit;
	Cracked ceiling tile;
	Visible water stain underneath sink.
Classroom 05	One stained ceiling tile;
	Stain underneath sink.
Classroom 06	Dust on AC unit;
	One stained ceiling tile;
	Visual signs of suspect microbial growth underneath sink;
	Stain on return air vent.
Classroom 08	Visible dust on AC unit;
	Visible water stain under sink.
Classroom 09	Dust on AC unit;
	Noticeable water stain under sink;
	No visual signs of microbial growth, and no odor;
	Visible stain on classroom walls.
Classroom 13	Missing ceiling tile;
	One stained ceiling tile;
	No visual signs of microbial growth, and no odor;
	Visible dust on AC unit.
Classroom 14	Debris and dust in AC unit.
Classroom 17	Debris and dust inside AC unit;
	One stained ceiling tile.
Classroom 18	AC unit not working properly; makes irregular sound when turned on;
	Debris and dust in AC unit;
	One stained ceiling tile.
Classroom 19	Slight odor in room;
	Stain underneath cabinet;
	Debris and dust in AC unit.
Majority of	Visible stain on ceiling tiles;
Classrooms	Windows were not open during assessment;
throughout School	Debris and dust found inside AC unit.



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#### 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 lower than the ASHRAE recommended ranges in the representative areas.

#### Carbon Dioxide (CO<sub>2</sub>)

Under conditions of maximum occupancy, ASHRAE Standard 62.1-2010, Appendix C, infers that the acceptable CO<sub>2</sub> upper limit is the prevailing outdoor CO<sub>2</sub> concentration plus 700 parts per million (ppm). On the day of the space evaluation, the outdoor (building exterior) CO<sub>2</sub> concentration was approximately 526 ppm therefore indoor concentrations should not exceed approximately 1,226 ppm (700 + 526). The maximum average interior CO<sub>2</sub> concentration detected was 1,064 ppm in the Cafeteria, 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  $0.004~\text{mg/m}^3$  (4  $\mu\text{g/m}^3$ ) in



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Cafeteria. 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 0.044 mg/m³ (44  $\mu g/m^3$ ) in the Cafeteria. 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  $500~\mu g/m^3$  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  $3000~\mu g/m^3$  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: Baden Elementary School Instrumental Screening Levels May 15, 2019

Sample Location	Temp <sup>0</sup> F	RH%	CO ppm	CO <sub>2</sub>	PM 2.5 mg/m³	PM 10 mg/m³	TVOC ppm
Standards	ASHRAE 73 to 79°F*	ASHRAE <65%	NAAQS 9	ASHRAE 1,226	NAAQS 0.012	NAAQS 0.150	1.0
Classroom 02	70.7	43.5	0	762	0.003	0.021	0.1
Classroom 06	68.9	46.6	0	818	0.002	0.019	0.1
Classroom 19	70.7	43.5	0	653	0.002	0.028	0.1
Cafeteria/ Stage	69.8	48.0	0	1064	0.004	0.044	0.0
Gymnasium	73.7	49.7	0	804	0.003	0.032	0.0
Library	68.0	45.7	0	875	0.002	0.016	0.1
Exterior of the building-							
Next to the entrance	76.5	34.9	0	526	0.002	0.042	0.0

PM - Particulate Matter size °F - Degrees Fahrenheit CO - Carbon Monoxide ppm - parts per million µg/m³ – micrograms per cubic meter RH% - % Relative Humidity CO<sub>2</sub> – Carbon Dioxide \* - Summer Comfort Range



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#### **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: Baden Elementary School - Measurements of Mold-in-Air Samples May 15, 2019

		Wiay 15, 2017		
Spore Types	Outside Exterior EV Sample	Classroom 2 Area	Classroom 6 Area	Classroom 19 Area
Alternaria (Ulocladium)	-	-	-	-
Ascospores	1,500	200	300	100
Aspergillus/Penicillium	-	200	200	40
Basidiospores	3,100	1600	1,100	1,400
Bipolaris++	-	-	-	-
Chaetomium	-	-	10*	-
Cladosporium	90	400	960	200
Curvularia	-	-	-	-
Ерісоссит	-	-	-	-
Fusarium	-	-	-	-
Ganoderma	-	-	-	-
Myxomycetes++	40	40	40	-
Pithomyces++	-	-	-	-
Rust	-	-	10*	-
Scopulariopsis/Microascus	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-
Unidentifiable Spores	-	-	-	-
Zygomycetes	-	-	-	-
Hyphal Fragment	-	40	10*	-
Insect Fragment	-	-	-	-
Pollen	90	-	10*	-
Total Fungi	4,730	2,440	2,620	1,740

<sup>\*</sup> Spore Counts per cubic meter of air (Counts/m<sup>3</sup>)



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Table 3: Baden Elementary School - Measurements of Mold-in-Air Samples continued May 15, 2019

Spore Types	Gymnasium	Library Area	Cafeteria/ Stage Area	Field Blank
Alternaria (Ulocladium)	-	-	-	-
Ascospores	-	90	200	-
Aspergillus/Penicillium	-	40	520	-
Basidiospores	100	400	960	-
Bipolaris++	-	-	-	-
Chaetomium	-	-	-	-
Cladosporium	200	-	200	-
Curvularia	-	-	-	-
Ерісоссит	-	-	-	-
Fusarium	-	-	-	-
Ganoderma	-	-	-	-
Myxomycetes++	-	40	40*	-
Pithomyces++	-	-	-	-
Rust	-	40	-	-
Scopulariopsis/Microascus	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-
Unidentifiable Spores	-	-	-	-
Zygomycetes	-	-	-	-
Hyphal Fragment	-	40	10	-
Insect Fragment	-	-	-	-
Pollen	-	-	40	-
Total Fungi	300	610	1,920	No Trace

<sup>\*</sup> Spore Counts per cubic meter of air (Counts/m<sup>3</sup>)

#### **Findings and Conclusions**

The comfort parameters (i.e., temperature, RH, CO<sub>2</sub>, and CO levels) and respirable particulates in affected areas conform to ASHRAE and/or NAAQS guidelines with the exception of some temperature readings which were lower than the ASHRAE comfort level. On May 15, 2019, total mold counts in representative area samples (spore count/m<sup>3</sup> 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 Baden Elementary School, SaLUT recommends the following measures to address the indoor air quality concerns documented:

- 1. Replace stained and missing ceiling tiles in above-mentioned locations;
- 2. Clean stained area underneath the sink cabinet in Classroom 6.



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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 Order: 061909665 Customer ID: SALU50

Customer PO: Project ID:

Attn: Indika Jayatilake Phone: (301) 595-3783

 SaLUT
 Fax:
 (301) 595-3787

 1818 New York Avenue, NE
 Collected:
 05/15/2019

 Suite 218A
 Received:
 05/16/2019

 Washington, DC 20002
 Analyzed:
 05/22/2019

Project: PGCPS IAQ/19-035 Baden ES 13601 Baden-Westwood Road

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	061909665-0001 27953024 75 Inside Room 19 area			27953024 27953017 75 75				27953017 27953602 75 75			27953602 75		
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	5.7	8	300	11.5	4	200	8.2				
Aspergillus/Penicillium	1	40	2.3	5	200	7.6	4	200	8.2				
Basidiospores	33	1400	80.5	25	1100	42	37	1600	65.6				
Bipolaris++	-	-	-	-	-	-	-	-	-				
Chaetomium	-	-	-	1*	10*	0.4	-	-	-				
Cladosporium	5	200	11.5	22	960	36.6	9	400	16.4				
Curvularia	-	-	-	-	-	-	-	-	-				
Epicoccum	-	-	-	-	-	-	-	-	-				
Fusarium	-	-	-	-	-	-	-	-	-				
Ganoderma	-	-	-	-	-	-	-	-	-				
Myxomycetes++	-	-	-	1	40	1.5	1	40	1.6				
Pithomyces++	-	-	-	-	-	-	-	-	-				
Rust	-	-	-	1*	10*	0.4	-	-	-				
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-				
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-				
Unidentifiable Spores	-	-	-	-	-	-	-	-	-				
Zygomycetes	-	-	-	-	-	-	-	-	-				
Total Fungi	42	1740	100	63	2620	100	55	2440	100				
Hyphal Fragment	-	-	-	1*	10*	-	1	40	-				
Insect Fragment	-	-	-	-	-	-	-	-	-				
Pollen	-	-	-	1*	10*	-	-	_	-				
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-				
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-				
Skin Fragments (1-4)	-	1	-	-	2	-	-	2	-				
Fibrous Particulate (1-4)	-	1	-	-	2	-	-	2	-				
Background (1-5)	-	1	-	-	2	-	-	2	-				

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

Jeffrey Lau, Microbiology 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. Carle Place, NY AIHA-LAP, LLC--EMLAP Accredited #102344

Initial report from: 05/23/2019 11:54:25



EMSL Order: 061909665 Customer ID: SALU50

**Customer PO:** Project ID:

**Phone:** (301) 595-3783 Attn: Indika Jayatilake

**SaLUT** (301) 595-3787 Fax: 1818 New York Avenue, NE Collected: 05/15/2019

Suite 218A Received: 05/16/2019 Analyzed: 05/22/2019 Washington, DC 20002

Project: PGCPS IAQ/19-035 Baden ES 13601 Baden-Westwood Road

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		061909665-0004 27953603 75 • Cafeteria/Stag			061909665-0005 27953605 75 de Gymnasium		061909665-0006 27953601 75 Inside Library area		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	' -	-	-	-
Ascospores	5	200	10.4	-	-	-	2	90	14.8
Aspergillus/Penicillium	12	520	27.1	-	-	-	1	40	6.6
Basidiospores	22	960	50	3	100	33.3	9	400	65.6
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	5	200	10.4	5	200	66.7	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	3*	40*	2.1	-	-	-	1	40	6.6
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	1	40	6.6
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	47	1920	100	8	300	100	14	610	100
Hyphal Fragment	1*	10*	-	-	-	-	1	40	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	1	40	-	-	-	_	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	2	-
Fibrous Particulate (1-4)	-	2	-	-	1	-	-	2	-
Background (1-5)	-	2	-	-	1	-	-	2	-

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

Jeffrey Lau, Microbiology 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. "\*"

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Samples analyzed by EMSL Analytical, Inc. Carle Place, NY AIHA-LAP, LLC--EMLAP Accredited #102344

Initial report from: 05/23/2019 11:54:25



EMSL Order: 061909665 Customer ID: SALU50

**Customer PO:** Project ID:

**Phone:** (301) 595-3783 Attn: Indika Jayatilake

**SaLUT** (301) 595-3787 Fax: 1818 New York Avenue, NE Collected: 05/15/2019

Suite 218A Received: 05/16/2019 Analyzed: 05/22/2019 Washington, DC 20002

Project: PGCPS IAQ/19-035 Baden ES 13601 Baden-Westwood Road

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		061909665-000 27953031 75 de Exterior EV S		061909665-0008 27953020 Field Blank					
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	_	_	_
Alternaria (Ulocladium)	-	-	<u> </u>	-	-	· -	-	-	_
Ascospores	35	1500	31.7	-	-	-	_		
Aspergillus/Penicillium	-	-	-	-	-	-	-		
Basidiospores	72	3100	65.5	-	-	-	-		
Bipolaris++	-	-	-	-	-	-	-		
Chaetomium	-	-	-	-	-	-	-		
Cladosporium	2	90	1.9	-	-	-	-		
Curvularia	-	-	-	-	-	-	-		
Epicoccum	-	-	-	-	-	-	-		
Fusarium	-	-	-	-	-	-	-		
Ganoderma	-	-	-	-	-	-	-		
Myxomycetes++	1	40	0.8	-	-	-	-		
Pithomyces++	-	-	-	-	-	-	-		
Rust	-	-	-	-	-	-	-		
Scopulariopsis/Microascus	-	-	-	-	-	-	-		
Stachybotrys/Memnoniella	-	-	-	-	-	-	-		
Unidentifiable Spores	-	-	-	-	-	-	-		
Zygomycetes	-	-	-	-	-	-	_		
Total Fungi	110	4730	100	-	No Trace	-	-		
Hyphal Fragment	-	-	-	-	-	-	_		
Insect Fragment	-	-	-	-	-	-	-		
Pollen	2	90	_	-	-	-	_	_	_
Analyt. Sensitivity 600x	-	44	-	-	0	-	-		
Analyt. Sensitivity 300x	-	13*	-	-	0*	-	-		
Skin Fragments (1-4)	-	1	-	-	-	-	-		
Fibrous Particulate (1-4)	-	1	-	-	-	-	-		
Background (1-5)	-	2	-	-	-	-	-		

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

Jeffrey Lau, Microbiology 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. Carle Place, NY AIHA-LAP, LLC--EMLAP Accredited #102344

Initial report from: 05/23/2019 11:54:25

OrderID: 061909665



# Microbiology Chain of Custody EMSL Order Number (Lab Use Only):

0619.096.65	PHONE
10110100	EAV:
	rax.

Company Name: SaLUT Inc.							tf			ne Different ctions in Comments*	•
Street: 1818 New	York Ave NE	Suite 231				7	Third Part	y Billing requ	iires written a	uthorization from t	hird party
City: Washington	s	tate/Province: D	С			Zip/Po	ostal Co	de:20002		Country: USA	
Report To (Name):				Telep	hone #:	301-595-37	<b>'</b> 83				
Email Address: <sup>ija</sup>	yatillake@salut	nc.com				Fax#	:			Purchase Ord	er:
Project Number/Loca	ation: PGCPS	IAQ/ 19-035 Bad	den ES	;		Pleas	e Provid	de Results:	☐ Fax	■ Email	
Location Address: 13				_						Commercial 🔲 R	
*Analysis completed in		EMSL's Terms and								ject to methodolog	y requirements
		amples: 🗌 Note								required by stat	e.
								e Check		/	
☐ 3 Hour	☐ 6 Hour	☐ 24 Hour	_	48 Ho		_	2 Hour	,	Hour	☑ 1 Week	2 Week
						Test C					
M001 Air-O-Cell	M174 Mc	•		<b>i024</b> Pseu <b>i015</b> Hete						age Screen - Wate age Screen - Wate	
M030 Micro 5 M032 Allergenco-D			M	i017 Total					M117 Sewa	age Screen - Swat	(P/A***)
M041 Fungal Direct E M169 Pollen ID & Enu				/A***) <b>I018</b> Total	l Col	iform &	E. coli (M	FT*)		age Screen - Swat icillin-resistant Sta	
M280 Dust Characteri			M	I114 Total	l Col	iform &		umeration	(MRSA)		·
M281 Dust Characteri				Colilert MF 1019 Feca			4FT*)			d-growing non-TB & Enumeration	Mycobacteria
M005 Viable Fungi- Ai M006 Viable Fungi- Ai			M	1020 Feca	ıl Str	eptococ	cus (MFT	¯*)	M014 Endo	otoxin Analysis	1
Aspergillus, Cladospo	rium, Śtachybotry	s Species ID & Cou	III)   BE	<b>1029</b> Entei <b>1129</b> Entei				Δ***)	M044 Grou Dust Mite)	ip Allergen (Cat, D	og, Cockroach,
M007 Culturable fungi M008 Culturable fungi				1180 Real					Other See	Analytical Price G	
-Penicillium, Aspergillu				Panel Legionella Analysis Please use EMSL M025 Sewage Screen –Water (MFT*) Legionella COC						use EMSL	
ID & Count) M009 Bacteria Culture	Gram Stain & Co	nunt		M025 Sewage Screen –Water (MFT*)  Legionella COC							
M010 Bacteria Count	& ID - 3 Most Pro	minent		*MFT= Membrane Filtration Technique  **MPN= Most Probable Number							
M011 Bacteria Count M012 Pseudomonas a				***P/A= Presence/Absence							
Name of Sampler:		Jguyen		Signature of Sampler:				Sampler:	UN MILE		
	- W. J	- <del>// o ( ) - · /</del>	Т			Pot	able/				Temperature
Sample #	Sample Loc	ation/Description		Sample Type	l		otable ly for	Test Code	Volume/ Area	Date/Time Collected	( <b>°C)</b> (Lab Use
-				1 A be			ters)	Code	Alea	Collected	Only)
27953024	Inside F	Room 19 area	<u> </u>	Air	-		□NP	M001	75L	5/15/2019	
27953017	Inside	Room 6 area		Aır			NP	M001()	₹5L	19	·
27953602	Inside	Room 2 area		, Air			NP	M001	75L	مارسه مطلسه	2
27953603	Inside Cafe	eteria/Stage area	1	Air	•		□NP	M001	75L	<u> </u>	i i
27953605	Inside G	ymasium area		Air <u>.</u>		□P	□NP	M001	75L_	22	<b>*</b>
27953601	Inside	Library area		Air		□Р	□NP	M001_	75L	3279	
Client Sample # (s	): <u> </u>		Tota	l # of Sa	mp	les: 8		Samples	Received (	Chilled? Yes	No.
Relinquished (Clie	ent);		_^_		Date	e: Š/	15/2	01.9	Time:	Ŷ.	<b>=</b>
Received (Lab):	A. Donne	ith while	- In		Date	e: حض	[14]	9	Time: /	20 pm	<u>73</u>
Comments/Specia	Instructions:						1			y	
1											
1											

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OrderID: 061909665



## **Microbiology Chain of Custody**

EMSL Order Number (Lab Use Only):

06	ao 9665	
		 -10-

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)
27953031	Outside Exterior EV Sample	Air	□P □NP	M001	75L	5/15/2019	
27953020	Field Blank		□ P □NP	(2)			•
			<u> </u>				
			□ P □NP				
			<u> </u>				
			□ P □NP				,
			□P □NP .				
			□ P □NP		II.		
			□ P □NP				
		,	□ P □NP		·		
	-	-	□ P □NP				
		·	□ P □NP	- <del>-</del>			_ <u> </u>
			□ P □NP			,,,,,	
			□ P □NP				
			□ P □NP				
		-	□ P □NP				3
			□ P □NP	· · · · · · · · · · · · · · · · · · ·		_	
		·	□P □NP				
			□P □NP				
			□P □NP	Υ			
			☐ P ☐NP	<u> </u>			,
			□ P □NP			·	
			☐ P ☐NP		- 4 8 G TG		
	Special Instructions:		□P □NP				

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JAN 5/22/19