March 18, 2021

Mr. Alex Baylor via email: alex.baylor@pgcps.org
Environmental Specialist
Environmental Safety Office
Prince George's County Public Schools
Division of Supporting Services / Building Services
13306 Old Marlboro Pike
Upper Marlboro, MD 20772

RE: Indoor Air Quality (IAQ) and Mold Assessment Services
Prince George's County Public Schools (PGCPS) – Hyattsville Elementary School
5311 43rd Avenue #1904, Hyattsville, Maryland 20781
Contract No.: IFB 022-19: Indoor Air Quality Services at Various Locations
Tidewater Project No.: 5419-044

Dear Mr. Baylor:

Tidewater, Inc. (Tidewater) is pleased to present this final report regarding the results of the Indoor Air Quality (IAQ) and Mold Assessment Services conducted by Tidewater at Hyattsville Elementary School located at 5311 43rd Avenue #1904 in Hyattsville, Maryland. Mr. Joel Kissoondath, Tidewater's Project Manager and Industrial Hygienist conducted these services on December 12, 2020. Re-sampling of areas with elevated mold concentrations was conducted on March 3, 2021 by Tidewater's Project Manager and Certified Industrial Hygienist, Mr. Skanda Abeyesekere MS, CIH, CSP, CHMM.

The scope of work for the IAQ assessment and mold survey included:

- Inspecting, taking direct read measurements, conducting air sampling for evidence of potential indoor air quality problems (including suspect microbial growth, water damage, chemical use/ storage, drain traps, sources of allergens or contaminants, etc.) that may contribute to indoor air quality problems at the following select areas of the school: Classroom 1, Classroom 3, Classroom 16, Classroom 19, Temporary Classroom 3, Kindergarten 2, Gymnasium, Main Office, Media Center and Multipurpose Room for;
- Taking direct read air measurements for comfort parameters including temperature (T), relative humidity (RH), carbon dioxide (CO_2), and carbon monoxide (CO) for comparison with standards established by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62.1–2019, *Ventilation for Acceptable Indoor Air Quality*, and The United States Environmental Protection Agency (US EPA) National Ambient Air Quality Standards (NAAQS);
- Taking direct read measurements for Particulate Matter less than 10 microns (PM10) for comparison with standards established by the US EPA NAAQS Final Action (December 7, 2020); and
- Conducting air sampling for microbial spores at the select locations for total airborne fungal spore analysis.

Visual Observation

Due to the on-going COVID-19 pandemic, the school building was occupied by a limited number of staff and no students were present at the time of the survey. The majority of the classrooms and other common areas inspected were vacant. The results of Tidewater's visual inspection are presented below:

Classroom 1

No signs of past or ongoing water-intrusion problems were observed in the classroom and no notable odors were detected. The wall-mounted fan coil unit was turned off at the time of the inspection. The classroom appeared to be clean and well maintained. Housekeeping appeared to be satisfactory.

Classroom 3

Water stains and visible mold growth were observed on the wall and ceiling above the windows in the classroom. A musty odor was also detected in this area. There were no window-mounted air conditioning units in the classroom. The wall-mounted fan coil unit was turned off at the time of the inspection.

Classroom 16

No signs of past or ongoing water-intrusion problems were observed in the classroom and no notable odors were detected. The wall-mounted fan coil unit was turned off at the time of the inspection. The classroom appeared to be clean and well maintained. Housekeeping appeared to be satisfactory.

Classroom 19

No signs of ongoing water-intrusion problems were observed in the classroom and no notable odors were detected. The wall-mounted fan coil unit was turned off at the time of the inspection. The classroom appeared to be clean and well maintained. Housekeeping appeared to be satisfactory.

Temporary Classroom 3

No signs of past or ongoing water-intrusion problems were observed in the temporary classroom and no notable odors were detected. A wall-mounted fan coil unit was operating and was emitting warm air at the time of the inspection. Although this classroom is in an outdoor vestibule, leaves and debris were observed on the floor at the time of the inspection. Overall, the classroom appeared to be clean and well maintained and housekeeping appeared to be satisfactory.

Kindergarten 2

No signs of past or ongoing water-intrusion problems were observed in the kindergarten 2. A wall-mounted fan coil unit was operating and was emitting warm air at the time of the inspection. The classroom appeared to be clean and well maintained. Housekeeping appeared to be satisfactory.

Gymnasium

No signs of past or ongoing water-intrusion problems were observed in the gymnasium and no notable odors were detected. The gymnasium appeared to be clean and well maintained. Housekeeping appeared to be satisfactory. A wall-mounted fan coil unit was operating and was emitting warm air at the time of the inspection. The supply grills of the HVAC system unit appeared to contain dust deposits.

Main Office

The Main Office appeared to be clean and well maintained. Housekeeping appeared to be satisfactory. No signs of past or ongoing water-intrusion problems were observed and no notable odors were detected. Wall-mounted fan coil unit was operating and was emitting warm air at the time of the inspection.

Media Center

Signs of past or ongoing water-intrusion problems were observed in the Media Center. A ceiling tile with heavy water stains was observed in the hallway (outside classroom 16.) No notable odors were detected. Housekeeping appeared to be satisfactory. Multiple wall-mounted fan coil units were observed in the Media Center.

Multipurpose Room

Signs of past or ongoing water-intrusion problems were observed in the multipurpose room. A ceiling tile with heavy water stains was observed in the center of the room and a pool of water was observed on the floor directly under the impacted ceiling tile. No notable odors were detected. Multiple wall-mounted fan coil units were in observed in the multipurpose room.

Comfort Parameter Air Testing

During the IAQ assessment, Tidewater obtained temperature (T), relative humidity (RH), carbon dioxide (CO_2), and carbon monoxide (CO) measurements within select locations using a TSI VelociCalc Indoor Air Quality instrument (Model Number 9565-X, Serial Number 9565X 1945 002, Calibration Date: November 8, 2019.) Measurements were taken after allowing the instrument to become acclimated to the ambient temperature and relative humidity for approximately five (5) minutes. Measurements were taken over a 5-minute period at each designated location and the average concentration was recorded. Samples were obtained for comparison with standards established by the American Society for Heating Refrigeration and Air Conditioning (ASHRAE) Standard 62.1 – 2019, *Ventilation for Acceptable Indoor Air Quality*. Tidewater also obtained a "outdoor background" measurement in front of the main entrance of the school building for comparison to the interior readings. The results of the IAQ comfort parameter monitoring are provided in Table 1, in **Attachment A.**

According to the American Society for Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 62.1 – 2019, *Ventilation for Acceptable Indoor Air Quality,* the temperature range in summer months should be maintained between 73.0°F and 79.0°F for maximum occupant comfort. The ASHRAE standard for temperature for winter months is between 68.0°F and 74.5°F. The indoor temperature levels within all interior locations ranged between 59.1°F and 74.6°F. The background temperature outside the building was 52.6°F. The temperature levels recorded within most areas were below the temperature levels typically observed during the fall-winter transitional period. The areas inspected were vacant at the time of the inspection.

Per the same ASHRAE standard, a maximum relative humidity level of 65.0% or below is recommended to reduce the likelihood of condensation on cold surfaces. Relative humidity levels within all interior locations assessed ranged between 19.6% and 25.1%. The background relative humidity level outside the building was 21.6%. The relative humidity levels within all areas assessed were below the ASHRAE recommended maximum relative humidity standard of 65.0%.

ASHRAE Standard 62.1 – 2019 recommends that indoor CO_2 levels not exceed 700 ppm above the outdoor background CO_2 level. The CO_2 levels in all interior locations ranged between 444 ppm to 543 ppm. The background CO_2 level outside the building was 446 ppm. The CO_2 levels within all assessed areas did not exceed 700 ppm above the outdoor background CO_2 level of 446 ppm.

The CO levels in all interior locations assessed were below the maximum standard of 9.0 ppm recommended by the Indoor Air Quality Association (IAQA) for CO in occupied indoor environments.

Particulate Matter Less Than 10 microns (PM10)

During the assessment, Tidewater obtained particulate matter less than 10 microns (PM10) dust particulate measurements within select locations using a TSI® DUST TRAK II™ Aerosol Monitor (Model 8534, Serial Number 8534170101.) Measurements were taken after allowing the device to become acclimated to the ambient temperature and relative humidity for five (5) minutes. Measurements were taken over a 5-minute time period at each sampling location and the average concentration was recorded for comparison with standards established by the US EPA NAAQS Final Action (December 7, 2020.)

Tidewater also obtained an outdoor background sample for comparison to the interior readings.

The results of the particulate matter sampling are provided in Table 2, in **Attachment A**.

Based on the EPA NAAQS for Particulate Matter, Final Action (December 7, 2020), the 24-hour primary and secondary exposure standard for particulate matter less than 10 microns (PM10) is 150.0 micrograms per cubic meter of air (µg/m^3) or 0.150 milligrams per cubic meter of air (mg/m^3.) The results of the PM10 analysis indicate that the average PM10 dust concentrations in all assessed areas ranged between 0.000 mg/m^3 and 0.027 mg/m^3. The average PM10 dust concentration in the outdoor background sample was 0.012 mg/m^3. The PM10 concentrations in all areas were below the EPA 24-hour primary and secondary NAAQS of 0.150 mg/m^3.

Spore Trap Bioaerosol Sampling

Tidewater collected spore trap air samples from select locations within the school to characterize air quality for total airborne fungal spore analysis. The samples were collected from the same locations where the comfort parameters were recorded. Tidewater obtained the spore trap samples using Allergenco-D cassettes affixed to a Buck BioAire™ Bioaerosol Sampling Pump (Pump Model Number B520 and Serial Number B153043) calibrated to a flow rate of 15.0 Liters per minute. Each sample was run for a period of five (5) minutes at each sample location to collect a total sample volume of 75.0 liters of air. Tidewater also obtained an outdoor background sample for comparison to the interior readings.

Once collected, the samples were transported to EMSL Analytical Laboratory (EMSL) located in Beltsville, Maryland for analysis via a standard turn-around time. The samples were transported

following rigorous chain-of-custody guidelines to ensure proper handling and delivery of the samples. EMSL is accredited in the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) and is a successful participant in AIHA's Environmental Microbiology Proficiency Analytical Testing (EMPAT) program (Laboratory Number 102891.) The samples were analyzed via light microscopy at the standardized magnification of 600X. This technique does not allow for the differentiation between *Aspergillus* and *Penicillium* spores because they are morphologically identical. Additionally, the technique does not allow for cultivation, or the identification of spores to the species level, except in a few cases.

There are no universally accepted federal or State of Maryland standards for acceptable airborne concentrations of bioaerosols in an indoor occupational environment. In general, indoor airborne concentrations should be less than that found in the outdoor air, with similar species composition. Indoor spore counts significantly greater than those outdoors, or the presence of large numbers of different types of spores identified indoors that are not identified outdoors, may indicate contamination and potential indoor air quality problems.

The total mold spore counts in all assessed areas of the school ranged between none detect and 870 spores/m^3. The total mold spore concentrations in the outdoor background sample was 10 spores/m^3. The total mold spore concentrations in all indoor samples, except for sample #121520-M3 (none detect), were above the background sample concentration of 10 spores/m^3. The concentrations of *Aspergillus/ Penicllium* spores and total mold spores in Classroom 3 and temporary Classroom 3 were significantly higher than the background sample concentration. This is consistent with the visible mold growth observed on the wall/ceiling in Classroom 3 (kindergarten 2 located down the hallway is most likely impacted from classroom 3) and leaves/debris found in temporary classroom 3.

The areas with elevated mold spores were re-sampled on March 3, 2021 following cleanup activities. The results indicated that the total mold spore concentrations in the interior locations re-sampled were consistent with those observed in the background sample. The results did not indicate elevated levels of airborne total fungal spores in the interior location sampled.

The summary of the results for the spore trap sampling are provided in Table 3 in **Attachment A**. The laboratory analytical results, including speciation and chain of custody forms for the spore trap samples are included in **Attachment B**.

CONCLUSIONS

- The follow issues were identified during the visual inspections:
  - Classroom 3: The wall and ceiling above the windows had visible mold growth and a musty odor was detected from the classroom.
  - Gymnasium: The wall-mounted air supply grills appeared to contain dust deposits.
  - Media Center: A ceiling tile with heavy water stains was observed in the hallway (outside classroom 16.)
  - Multipurpose Room: A ceiling tile with heavy water stains was observed in the center of the room and a pool of accumulated water was observed on the floor below.

- Temperature levels recorded within majority of the interior locations assessed, were below the ASHRAE Standard of 68.0°F and 74.5°F recommended for winter months.
- The Relative humidity, CO_2, CO readings and particulate matter less than 10 microns (PM10) recorded within the assessed areas were within industry standards and guidelines;
- The total mold spore concentrations in all interior locations assessed were consistent with those observed in the background sample. The results do not indicate elevated levels of airborne total fungal spores in the interior locations sampled.

RECOMMENDATIONS

Based on the results of our visual inspection, Tidewater proposes the following:

- Investigate the wall, ceiling, and exterior wall in Classroom 3 for any ongoing water leaks. If any ongoing water leaks are detected, take action to repair them immediately.
- Clean the wall-mounted air supply vents in the Gymnasium with a commercially available (EPA approved) disinfectant on a routine basis to remove dust deposits.
- Investigate the drop ceiling above the water-stained ceiling tiles in the Media Center (hallway outside Classroom 16) and Multipurpose Room for any ongoing water leaks. If any ongoing water leaks are detected, take action to repair them immediately.
- Appropriate steps should be taken to remediate all mold infested surfaces and sanitize the surrounding areas. Tidewater recommends hiring a 3rd party remediation company specializing in mold remediation to abate all mold-infested and water damaged ceiling tiles and other water damaged material and clean the perimeters of the ceiling grids with a commercially available (EPA approved) fungicide to mitigate existing fungal spores prior to installing new ceiling tiles in the affected areas;
- Adjust thermostat of the Heating Ventilation and Air Conditioning (HVAC) System supplying air to the classrooms and common areas to achieve a temperature level between 68.0°F and 74.5°F recommended for winter months per ASHRAE Standard 62.1 – 2019, *Ventilation for Acceptable Indoor Air Quality.*
- Ensure the Heating Ventilation and Air Conditioning (HVAC) System supplying air to all common areas and classrooms is properly balanced per design requirements and are turned on and are operating at all times to ensure adequate ventilation throughout the classrooms and common areas before the school re-opens.
- Maintain good housekeeping practices in all common areas and classrooms. All common area and classrooms floors should be broom cleaned at the end of each day once the school re-opens for students. Furthermore, all horizontal surfaces including desktops, furniture, window sills, and light fixtures should be cleaned on a routine basis to prevent the accumulation of dust.

Qualifications

Tidewater investigated existing conditions pertaining to indoor air quality and mold contamination in select areas of Hyattsville Elementary School located at 5311 43rd Avenue #1904 in Hyattsville, Maryland as. Our conclusions and recommendations are based on observations made on the day of our assessment, laboratory data from the time of the assessment, and information provided by both our Client and the area occupants. Actual conditions vary from day to day throughout the year.

Tidewater appreciates the opportunity to provide Industrial Hygiene consulting services for Prince George's County Public Schools. Please contact us should any questions arise concerning this report or if we may be of further assistance.

Sincerely,

Tidewater, Inc.

Skanda Abeyesekere, MS, CIH, CSP, CHMM
Project Manager

Jonathan N. Schatz, MS, CES, CEI
Manager, IH Services

SA/JNS

Attachments: **Attachment A – Summary of Comfort Parameters, PM10 Particulate Dust, and Microbial Results**
Attachment B – Laboratory Reports and Chain of Custody Forms
Attachment C – Instrument Calibration Certificates
Attachment D – Relevant Certifications
Attachment E – Floor Plan with Sampling Locations

APPENDIX A

COMFORT PARAMETERS, PM10 PARTICULATE DUST, AND MICROBIAL RESULTS

Table 1: Indoor Air Quality Comfort Parameters Hyattsville Elementary School				
Location	**Temperature (°F)**	**Carbon Dioxide (ppm)**	**Relative Humidity (%)**	**Carbon Monoxide (ppm)**
December 15, 2020				
Multipurpose Room	**64.2**	480	23.3	0.0
Media Center	**63.4**	451	22.8	0.0
Classroom 16	**63.6**	456	23.0	0.0
Gymnasium	**64.8**	459	22.2	0.0
Main Office	**66.3**	482	21.7	0.0
Kindergarten 2	**66.8**	455	20.0	0.0
Classroom 3	68.7	449	19.6	0.0
Classroom 1	**59.1**	452	25.1	0.0
Classroom 19	**66.7**	457	19.9	0.0
Temporary Classroom 3	**74.6**	543	24.3	0.0
Background (Outdoors)	52.6	446	21.6	0.0

*Highlighted Areas indicate locations in which temperature levels were below and (1) location above the American Society for Heating Refrigeration and Air Conditioning (ASHRAE) Standard 62.1 – 2019 recommended standards for winter months.

Table 2: Particulate Matter Less than 10 Microns (PM10) Hyattsville Elementary School	
Location	**Particulate Matter (PM10)** **Concentration (mg/m^3)**
December 15, 2020	
Multipurpose Room	0.009
Media Center	0.002
Classroom 16	0.000
Gymnasium	0.007
Main Office	0.011
Kindergarten 2	0.004
Classroom 3	0.027
Classroom 1	0.005
Classroom 19	0.009
Temporary Classroom 3	0.013
Background (Outdoors)	0.012

Table 3: Spore Trap Sampling Results Hyattsville Elementary School				
December 15, 2020				
Sample Number	**Sample Location**	**Sample Volume (L)**	***Aspergillus Penicillium* Concentration (Counts/m^3)**	**Total Fungi Concentration (Counts/m^3)**
121520-M1	Multipurpose Room	75.0	None Detected	400
121520-M2	Media Center	75.0	None Detected	240
121520-M3	Classroom 16	75.0	None Detected	None Detected
121520-M4	Gymnasium	75.0	None Detected	80
121520-M5	Main Office	75.0	None Detected	120
121520-M6	Kindergarten 2	75.0	40	80
121520-M7	Classroom 3	75.0	**80**	**870**
121520-M8	Classroom 1	75.0	None Detected	400
121520-M9	Classroom 19	75.0	None Detected	540
121520-M10	Temporary Classroom 3	75.0	**80**	**610**
121520-M11	Background	75.0	None Detected	10

*Highlighted areas indicate locations with a significantly high concentration of *Aspergillus/ peniciilum* spores and Total mold spores when compared with the background sample.

Table 3: Spore Trap Sampling Results Hyattsville Elementary School				
March 2, 2021				
Sample Number	**Sample Location**	**Sample Volume (L)**	***Aspergillus Penicillium* Concentration (Counts/m^3)**	**Total Fungi Concentration (Counts/m^3)**
030321-HES-1	Classroom 3 Basement	75.0	200	580
030321-HES-2	Classroom 1 Basement	75.0	40	80
030321-HES-3	Classroom 19 Basement	75.0	100	730
030321-HES-BG	Background	75.0	None Detected	310

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY FORMS

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: 192012375
Customer ID: TIDE50
Customer PO:
Project ID:

Attention: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075
Project: Hyattsville E.S.

Phone: (410) 540-8700
Fax: (410) 997-8713
Collected Date: 12/15/2020
Received Date: 12/15/2020
Analyzed Date: 12/19/2020

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

	192012375-0001			192012375-0002			192012375-0003		
Lab Sample Number:									
Client Sample ID:	121520-M1			121520-M2			121520-M3		
Volume (L):	75			75			75		
Sample Location:	Multipurpose center, 1st Fl			Media center, 1st Fl			Classroom 16, 1st Fl		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	1	40	16.7	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	9	400	100	6	200	83.3	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Botrytis	-	-	-	-	-	-	-	-	-
Peronospora	-	-	-	-	-	-	-	-	-
Total Fungi	**9**	**400**	**100**	**7**	**240**	**100**	**-**	**None Detected**	**-**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	2	-
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.

No discernable field blank was submitted with this group of samples.

Abubakar Barry, Microbiology Lab 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.

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

Initial report from: 12/21/2020 10:40 AM

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

EMSL Analytical, Inc.

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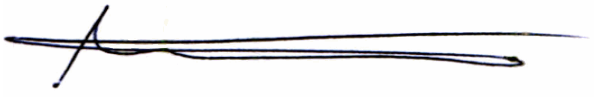
Collected Date: 12/15/2020
Received Date: 12/15/2020
Analyzed Date: 12/19/2020

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

Lab Sample Number:	192012375-0004			192012375-0005			192012375-0006		
Client Sample ID:	121520-M4			121520-M5			121520-M6		
Volume (L):	75			75			75		
Sample Location:	Gym, 1st Fl			Main office, 1st Fl			Kindergarten 2, Basement		
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	-	-	-	-	-	-	1	40	50
Basidiospores	2	80	100	2	80	66.7	1	40	50
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Botrytis	-	-	-	1	40	33.3	-	-	-
Peronospora	-	-	-	-	-	-	-	-	-
Total Fungi	**2**	**80**	**100**	**3**	**120**	**100**	**2**	**80**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	1*	10*	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	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.

No discernable field blank was submitted with this group of samples.



Abubakar Barry, Microbiology Lab Manager
or other Approved Signatory

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10768 Baltimore Avenue Beltsville, MD 20705
Tel/Fax: (301) 937-5700 / (301) 937-5701
http://www.EMSL.com / beltsvillelab@emsl.com

EMSL Order: 192012375
Customer ID: TIDE50
Customer PO:
Project ID:

Attention: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075
Project: Hyattsville E.S.

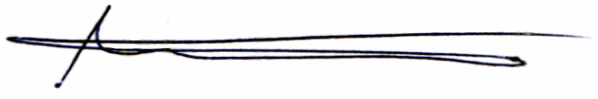
Phone: (410) 540-8700
Fax: (410) 997-8713
Collected Date: 12/15/2020
Received Date: 12/15/2020
Analyzed Date: 12/19/2020

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

Lab Sample Number:	192012375-0007			192012375-0008			192012375-0009		
Client Sample ID:	121520-M7			121520-M8			121520-M9		
Volume (L):	75			75			75		
Sample Location:	Classroom 3, Basement			Classroom 1, Basement			Classroom 19, Basement		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	2	80	9.2	-	-	-	-	-	-
Aspergillus/Penicillium	2	80	9.2	-	-	-	-	-	-
Basidiospores	10	410	47.1	9	400	100	11	450	83.3
Bipolaris++	-	-	-	-	-	-	1*	10*	1.9
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	7	300	34.5	-	-	-	2	80	14.8
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Botrytis	-	-	-	-	-	-	-	-	-
Peronospora	-	-	-	-	-	-	-	-	-
Total Fungi	**21**	**870**	**100**	**9**	**400**	**100**	**14**	**540**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	1*	10*	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	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.

No discernable field blank was submitted with this group of samples.



Abubakar Barry, Microbiology Lab 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.

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

Initial report from: 12/21/2020 10:40 AM

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

EMSL Analytical, Inc.

10768 Baltimore Avenue Beltsville, MD 20705
Tel/Fax: (301) 937-5700 / (301) 937-5701
http://www.EMSL.com / beltsvillelab@emsl.com

EMSL Order: 192012375
Customer ID: TIDE50
Customer PO:
Project ID:

Attention: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075
Project: Hyattsville E.S.

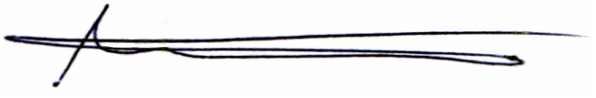
Phone: (410) 540-8700
Fax: (410) 997-8713
Collected Date: 12/15/2020
Received Date: 12/15/2020
Analyzed Date: 12/19/2020

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

Lab Sample Number:	**192012375-0010**			**192012375-0011**					
Client Sample ID:	**121520-M10**			**121520-M11**					
Volume (L):	**75**			**75**					
Sample Location:	**Temp. Classroom #3**			**Background, side entry**					
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**			
Alternaria (Ulocladium)	1	40	6.6	-	-	-			
Ascospores	2	80	13.1	-	-	-			
Aspergillus/Penicillium	2	80	13.1	-	-	-			
Basidiospores	9	400	65.6	-	-	-			
Bipolaris++	-	-	-	-	-	-			
Chaetomium	-	-	-	-	-	-			
Cladosporium	-	-	-	1*	10*	100			
Curvularia	-	-	-	-	-	-			
Epicoccum	-	-	-	-	-	-			
Fusarium	-	-	-	-	-	-			
Ganoderma	-	-	-	-	-	-			
Myxomycetes++	-	-	-	-	-	-			
Pithomyces++	-	-	-	-	-	-			
Rust	-	-	-	-	-	-			
Scopulariopsis/Microascus	-	-	-	-	-	-			
Stachybotrys/Memnoniella	-	-	-	-	-	-			
Unidentifiable Spores	-	-	-	-	-	-			
Zygomycetes	-	-	-	-	-	-			
Botrytis	-	-	-	-	-	-			
Peronospora	1*	10*	1.6	-	-	-			
Total Fungi	**15**	**610**	**100**	**1**	**10**	**100**			
Hyphal Fragment	-	-	-	-	-	-			
Insect Fragment	-	-	-	-	-	-			
Pollen	-	-	-	-	-	-			
Analyt. Sensitivity 600x	-	41	-	-	41	-			
Analyt. Sensitivity 300x	-	13*	-	-	13*	-			
Skin Fragments (1-4)	-	1	-	-	1	-			
Fibrous Particulate (1-4)	-	1	-	-	1	-			
Background (1-5)	-	1	-	-	1	-			

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

No discernable field blank was submitted with this group of samples.



Abubakar Barry, Microbiology Lab Manager
or other Approved Signatory

Initial report from: 12/21/2020 10:40 AM

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

OrderID: 192012375

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): 192012375

PHONE:
FAX:

Company: Tidewater Inc	**EMSL-Bill to:** ☐ Different ☑ Same If Bill to is Different note instructions in Comments**
Street: 6625 Selnick Drive, Suite A	*Third Party Billing requires written authorization from third party*
City: Elkridge **State/Province:** MD	**Zip/Postal Code:** 21075 **Country:** USA
Report To (Name): Skanda Abeyesekere	**Telephone #:** 410-540-8700
Email Address: skanda@tideh2o.net	**Fax #:** **Purchase Order:**
Project Name/Number: Hyattsville E-8	**Please Provide Results:** ☐ FAX ☑ E-mail ☑ Mail
U.S. State Samples Taken: Maryland	**Connecticut Samples:** ☐ Commercial ☐ Residential

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour | ☐ 6 Hour | ☑ ~~24 Hour~~ | ☐ 48 Hour | ☐ 72 Hour | ☐ 96 Hour | ☑ 1 Week | ☑ 2 Week

*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements

Non Culturable Air Samples (Spore Traps) – Test Codes

- **M001** Air-O-Cell
- **M049** BioSIS
- **M030** Micro 5
- **M173** Allegro M2
- **M003** Burkard
- **M174** MoldSnap
- **M004** Allergenco
- **M043** Cyclex
- **M176** Relle Smart
- **M032** Allergenco-D
- **M002** Cyclex-d
- **M130** Via-Cell
- **M172** Versa Trap

Other Microbiology Test Codes

- **M041** Fungal Direct Examination
- **M005** Viable Fungi ID and Count
- **M006** Viable Fungi ID and Count (Speciation)
- **M007** Culturable Fungi
- **M008** Culturable Fungi (Speciation)
- **M009** Gram Stain Culturable Bacteria
- **M010** Bacterial Count and ID – 3 Most Prominent
- **M011** Bacterial Count and ID – 5 Most Prominent
- **M013** Sewage Contamination in Buildings
- **M014** Endotoxin Analysis
- **M015** Heterotrophic Plate Count
- **M180** Real Time Q-PCR-ERMI 36 Panel
- **M018** Total Coliform (Membrane Filtration)
- **M020** Fecal *Streptococcus* (Membrane Filtration)
- **M210-215** *Legionella* Detection
- **M026** Recreational Water Screen
- **M027** Mycotoxin Analysis
- **M029** *Enterococci*
- **M019** Fecal Coliform
- **M133** MRSA Analysis
- **M028** *Cryptococcus neoformans* Detection
- **M120** *Histoplasma capsulatum* Detection
- **M033-39** Allergen Testing
- **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
- **Other** See Analytical Price Guide

Preservation Method (Water):

Name of Sampler: [redacted] Joel Kissoondath **Signature of Sampler:** [signature]

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
Example: A1	Kitchen	Air	M001	75L	1/1/12 4:00 PM
121520-M1	Multipurpose Center, Ut #1	Air	M004	75L.	12-15-20 / 1210
121520-M2	Media Center				
121520-M3	Class Room 16				
121520-M4	Gym				
121520-M5	Main office				
-M6	Kindergarten 2, Basement				
-M7	Class Room 3,				
-M8	Class Room 1				
-M9	Class Room 19,				

Client Sample # (s): - **Total # of Samples:** 11

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

Received (Client): **Date:** **Time:**

Comments:

RECEIVED
EMSL ANALYTICAL, INC.
BELTSVILLE, MD
2020 DEC 15 P 3:55

OrderID: 192012375

Microbiology Chain of Custody

EMSL Order Number *(Lab Use Only)*:

92012375

PHONE:
FAX:

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

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
121520-M10	Temp. Class Room #3	Air	M004	75 L.	12-15-30/1210
121520-M11	Background, side Entry.	Air	M004	75 L.	↓

**Comments/Special Instructions:

Page 2 of 2 pages

EMSL Analytical, Inc.

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

EMSL Order: 182100780
Customer ID: TIDE50
Customer PO:
Project ID:

Attention: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075
Project: PGCPS Hyattsville ES

Phone: (410) 540-8700
Fax: (410) 997-8713
Collected Date: 03/03/2021
Received Date: 03/04/2021
Analyzed Date: 03/05/2021

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

Lab Sample Number:	182100780-0001			182100780-0002			182100780-0003		
Client Sample ID:	030321-HES-1			030321-HES-2			030321-HES-3		
Volume (L):	75			75			75		
Sample Location:	Classroom 3 (Basement)			Classroom 1 (Basement)			Classroom 19 (Basement)		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	1	40	6.9	-	-	-	-	-	-
Aspergillus/Penicillium	5	200	34.5	1	40	50	3	100	13.7
Basidiospores	-	-	-	1	40	50	13	550	75.3
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	8	300	51.7	-	-	-	2	80	11
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1	40	6.9	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**15**	**580**	**100**	**2**	**80**	**100**	**18**	**730**	**100**
Hyphal Fragment	-	-	-	3*	40*	-	-	-	-
Insect Fragment	-	-	-	1*	10*	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	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.

No discernable field blank was submitted with this group of samples.

Kevin Ream, 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.

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

Initial report from: 03/05/2021 12:30 PM

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

EMSL Analytical, Inc.

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

EMSL Order: 182100780
Customer ID: TIDE50
Customer PO:
Project ID:

Attention: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075
Project: PGCPS Hyattsville ES

Phone: (410) 540-8700
Fax: (410) 997-8713
Collected Date: 03/03/2021
Received Date: 03/04/2021
Analyzed Date: 03/05/2021

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

Lab Sample Number:	**182100780-0004**		
Client Sample ID:	**030321-HES-BG**		
Volume (L):	**75**		
Sample Location:	**Background**		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	1*	10*	3.2
Ascospores	-	-	-
Aspergillus/Penicillium	-	-	-
Basidiospores	6	300	96.8
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	-	-	-
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	-	-	-
Pithomyces++	-	-	-
Rust	-	-	-
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
Total Fungi	**7**	**310**	**100**
Hyphal Fragment	-	-	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	42	-
Analyt. Sensitivity 300x	-	13*	-
Skin Fragments (1-4)	-	1	-
Fibrous Particulate (1-4)	-	1	-
Background (1-5)	-	1	-

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

No discernable field blank was submitted with this group of samples.

Kevin Ream, 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.

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

Initial report from: 03/05/2021 12:30 PM

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

OrderID: 182100780

Microbiology Chain of Custody

EMSL Order Number *(Lab Use Only)*:

182100780

PHONE:
FAX:

Company: Tidewater Inc.	**EMSL-Bill to:** ☐ Different ☐ Same If Bill to is Different note instructions in Comments**
Street: 6625 Selnick Drive, Suite A	*Third Party Billing requires written authonzation from third party*
City: Elkridge **State/Province:** MD	**Zip/Postal Code:** **Country:**
Report To (Name): Skanda Abeyesekere	**Telephone #:**
Email Address: skanda@tideh2o.net	**Fax #:** **Purchase Order:**
Project Name/Number: PGCPS	**Please Provide Results:** ☐ FAX ☐ E-mail ☐ Mail
U.S. State Samples Taken: MD Hyattsville ES	**Connecticut Samples:** ☐ Commercial ☐ Residential

Turnaround Time (TAT) Options* - Please Check

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

*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements

Non Culturable Air Samples (Spore Traps) – Test Codes

• **M001** Air-O-Cell	• **M173** Allegro M2	• **M004** Allergenco	• **M032** Allergenco-D	• **M172** Versa Trap
• **M049** BioSIS	• **M003** Burkard	• **M043** Cyclex	• **M002** Cyclex-d	
• **M030** Micro 5	• **M174** MoldSnap	• **M176** Relle Smart	• **M130** Via-Cell	

Other Microbiology Test Codes

• **M041** Fungal Direct Examination	• **M014** Endotoxin Analysis	• **M029** *Enterococci*
• **M005** Viable Fungi ID and Count	• **M015** Heterotrophic Plate Count	• **M019** Fecal Coliform
• **M006** Viable Fungi ID and Count (Speciation)	• **M180** Real Time Q-PCR-ERMI 36	• **M133** MRSA Analysis
• **M007** Culturable Fungi	• Panel	• **M028** *Cryptococcus neoformans* Detection
• **M008** Culturable Fungi (Speciation)	• **M018** Total Coliform (Membrane Filtration)	• **M120** *Histoplasma capsulatum* Detection
• **M009** Gram Stain Culturable Bacteria	• **M020** Fecal *Streptococcus* (Membrane Filtration)	• **M033-39** Allergen Testing
• **M010** Bacterial Count and ID – 3 Most Prominent	• **M210-215** *Legionella* Detection	• **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
• **M011** Bacterial Count and ID – 5 Most Prominent	• **M026** Recreational Water Screen	• **Other** See Analytical Price Guide
• **M013** Sewage Contamination in Buildings	• **M027** Mycotoxin Analysis	

Preservation Method (Water):

Name of Sampler: SKANDA ABEYESEKERE **Signature of Sampler:**

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
	Kitchen	Air	M001	10L	03/03/21 4:00 PM
✓ 030321-HES-1	classroom 3 (Basement)	AIR	M032	75-0	03/03/21
✓ 030321-HES-2	classroom 1 (Basement)				
~~030321-HES-3~~					
✓ 03-0321-HES-3	classroom 19 (Basement)				
✓ 030321-HES-BG	Background				

Client Sample # (s): 4 **Total # of Samples:** 4

Relinquished (Client): **Date:** 03/03/2021 **Time:** 3:00 pm.

Received (Client): **Date:** 3.4.21 **Time:** 10:45

Comments:

EMSL Fedex (2 day mo)
7843 3532 4022

182100780

ORIGIN ID:BCBA (443) 983-0362
SKANDA ABEYESEKERE

6625 SELNICK DR STE A

ELKRIDGE, MD 21075
UNITED STATES US

SHIP DATE: 03MAR21
ACTWGT: 0.60 LB
CAD: 6990398/SSF02121

BILL THIRD PARTY

TO

EMSL ANALYTICAL, INC.
5221 MILITIA HILL RD

PLYMOUTH MEETING PA 19462
(000) 000-0000

INV:
PO:

REF:

DEPT:

FedEx Express

TRK# 0201 7843 3532 4022

THU - 04 MAR 10:30A
PRIORITY OVERNIGHT

17 QFWA

19462
PA-US PHL

Align bottom of peel-and-stick airbill or pouch here.

APPENDIX C

INSTRUMENT CALIBRATION CERTIFICATES

TSI P/N 2300157

CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

ENVIRONMENT CONDITIONS		
TEMPERATURE	74.1 (23.4)	°F (°C)
RELATIVE HUMIDITY	26	%RH
BAROMETRIC PRESSURE	29.26 (990.9)	inHg (hPa)

MODEL	9565-X
SERIAL NUMBER	9565X1945002

☒ AS LEFT ☒ IN TOLERANCE
☐ AS FOUND ☐ OUT OF TOLERANCE

-- CALIBRATION VERIFICATION RESULTS --

THERMO COUPLE^ — **SYSTEM PRESSURE01-01** — *Unit: °F (°C)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	71.6 (22.0)	71.6 (22.0)	69.6~73.6 (20.9~23.1)				

BAROMETRIC PRESSURE — **SYSTEM PRESSURE01-01** — *Unit: inHg (hPa)*

#	STANDARD	MEASURED	ALLOWABLE RANGE	#	STANDARD	MEASURED	ALLOWABLE RANGE
1	29.26 (990.9)	29.26 (990.9)	28.67~29.85 (970.9~1010.8)				

^ *Circuit portion of temperature measurement only, not including probe.*

TSI does hereby certify that the above described instrument conforms to the original manufacturer's specification (not applicable to As Found data) and has been calibrated using standards whose accuracies are traceable to the United States National Institute of Standards and Technology (NIST) or has been verified with respect to instrumentation whose accuracy is traceable to NIST, or is derived from accepted values of physical constants. TSI's calibration system is registered to ISO-9001:2015

Measurement Variable	System ID	Last Cal.	Cal. Due	Measurement Variable	System ID	Last Cal.	Cal. Due
DC Voltage	E003299	06-06-19	12-31-20	DC Voltage	E003300	06-06-19	12-31-20
Temperature	E004626	01-09-19	01-31-20	Pressure	E003302	08-07-19	02-29-20
Pressure	E003303	08-26-19	02-29-20				

Rose Germain — CALIBRATED

November 8, 2019 — DATE

Doc. ID CERT_GEN_WCC_TM

TSI P/N 2300157

CERTIFICATE OF CALIBRATION AND TESTING

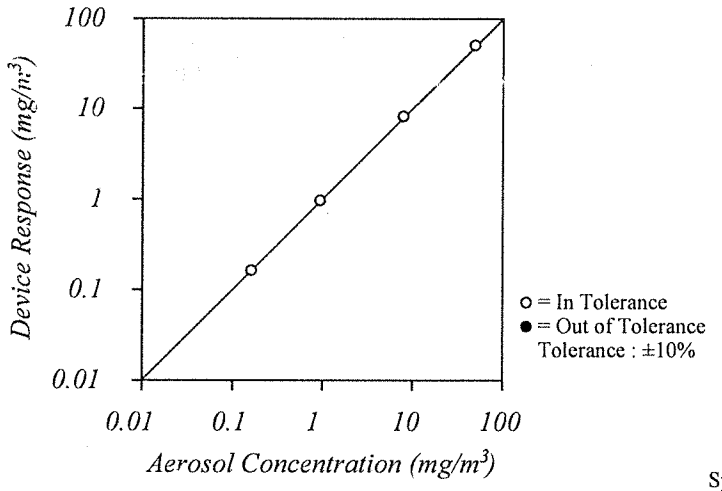
TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

Environment Conditions		
Temperature	75.83 (24.4)	°F (°C)
Relative Humidity	43.6	%RH
Barometric Pressure	28.93 (979.7)	inHg (hPa)

Model	**8534**
Serial Number	**8534170101**

☒ As Left ☒ In Tolerance
☐ As Found ☐ Out of Tolerance

Concentration Linearity Plot



System ID: DTII01-02

FLOW AND PRESSURE VERIFICATION — SYSTEM DTII01-01

Parameter	Standard	Measured	Allowable Range	Parameter	Standard	Measured	Allowable Range
Flow lpm	3.00	3.03	2.88 ~ 3.12	Pressure kPa	97.8	97.8	92.95 ~ 102.73
Full Flow lpm	N/A	4.54	>3.80				

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adjusted to respirable mass per standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 1.2:1

Measurement Variable	System ID	Last Cal.	Cal. Due
DC Voltage	E003314	01-15-20	01-31-21
Microbalance	M001324	10-03-18	10-31-20
3 um PSL	221853	n/a	n/a
Pressure	E003511	10-04-19	10-31-20
DC Voltage	E003315	01-15-20	01-31-21
Flowmeter	E005922	06-29-20	06-30-21
Microbalance	M001324	10-03-18	10-31-20
1 um PSL	698880	n/a	n/a
10 um PSL	212455	n/a	n/a

Measurement Variable	System ID	Last Cal.	Cal. Due
Photometer	E005612	08-19-20	02-28-21
1 um PSL	698880	n/a	n/a
10 um PSL	212455	n/a	n/a
Flowmeter	E005140	01-09-20	01-31-21
Photometer	E003433	09-15-20	03-31-21
DC Voltage(Keithley)	E002859	06-15-20	06-30-21
Pressure	E005651	07-06-20	07-31-21
3 um PSL	206030	n/a	n/a

David Farrell
Calibrated

September 24, 2020
Date

Certificate of Conformance

(X) Buck BioAire™ ( ) Buck BioSlide™

Serial number: B153043 **Date Issued:** 3-18-20

Flow Calibration

The instrument listed above is in conformance with factory specifications and the flow is set to nominal using a BUCK Calibrator which is N.I.S.T. traceable to A. P. Buck, Inc. Calibration Procedure APB-1, Ver. 6.2.

QA APPROVAL BY: Thomas J. Cranmer

A.P. BUCK, INC.
7101 Presidents Drive, Suite 110
Orlando, FL 32809
Phone: 407-851-8602 • Fax: 407-851-8910

BUCK
A.P. BUCK, INC.

APPENDIX D

RELEVANT CERTIFICATIONS

ABIH®

american board of industrial hygiene®

organized to improve the practice of industrial hygiene
proclaims that

Skandakumar Harshanath Abeyesekere

having met all requirements of
education, experience and examination, and
ongoing maintenance,
is hereby certified in the

COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE

and has the right to use the designations

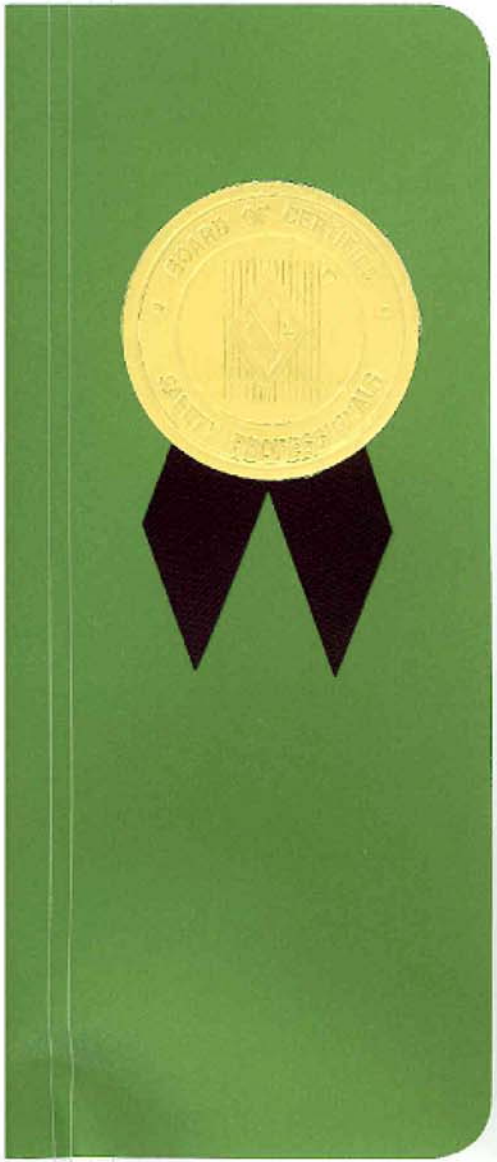
CERTIFIED INDUSTRIAL HYGIENIST

CIH®

Certificate Number	**9928 CP**
Awarded:	**May 11, 2011**
Expiration Date:	**December 1, 2021**

Susan Ripple
Chair, ABIH

Chief Executive Officer, ABIH



BOARD OF CERTIFIED SAFETY PROFESSIONALS

affirms that

Skandakumar Abeyesekere

Has applied for, met qualifications, and passed required examination(s) and is hereby authorized to use the designation

Certified Safety Professional®

in Comprehensive Practice

So long as this certificate is not suspended or revoked and the certificant renews this authorization annually and meets Continuance of Certification requirements.

Board of Examiners in witness whereof we have here unto set our hands and affixed the Seal of the Board this 7th Day of April, 2008

Paul S Adams — President

Linda Tapp — Secretary

20110 — CSP No.

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

THIS CERTIFIES THAT

Skandakumar Abeyeskere

HAS SUCCESSFULLY MET ALL THE REQUIREMENTS OF EDUCATION, EXPERIENCE AND EXAMINATION, AND IS HEREBY DESIGNATED A

CERTIFIED HAZARDOUS MATERIALS MANAGER
CHMM

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT IHMM CORPORATE SEAL 1984 DISTRICT OF COLUMBIA

May 13, 2016
DATE OF CERTIFICATION

19053
CREDENTIAL NUMBER

May 31, 2021
CERTIFICATION EXPIRES

M. Patricia Buley
ACTING EXECUTIVE DIRECTOR

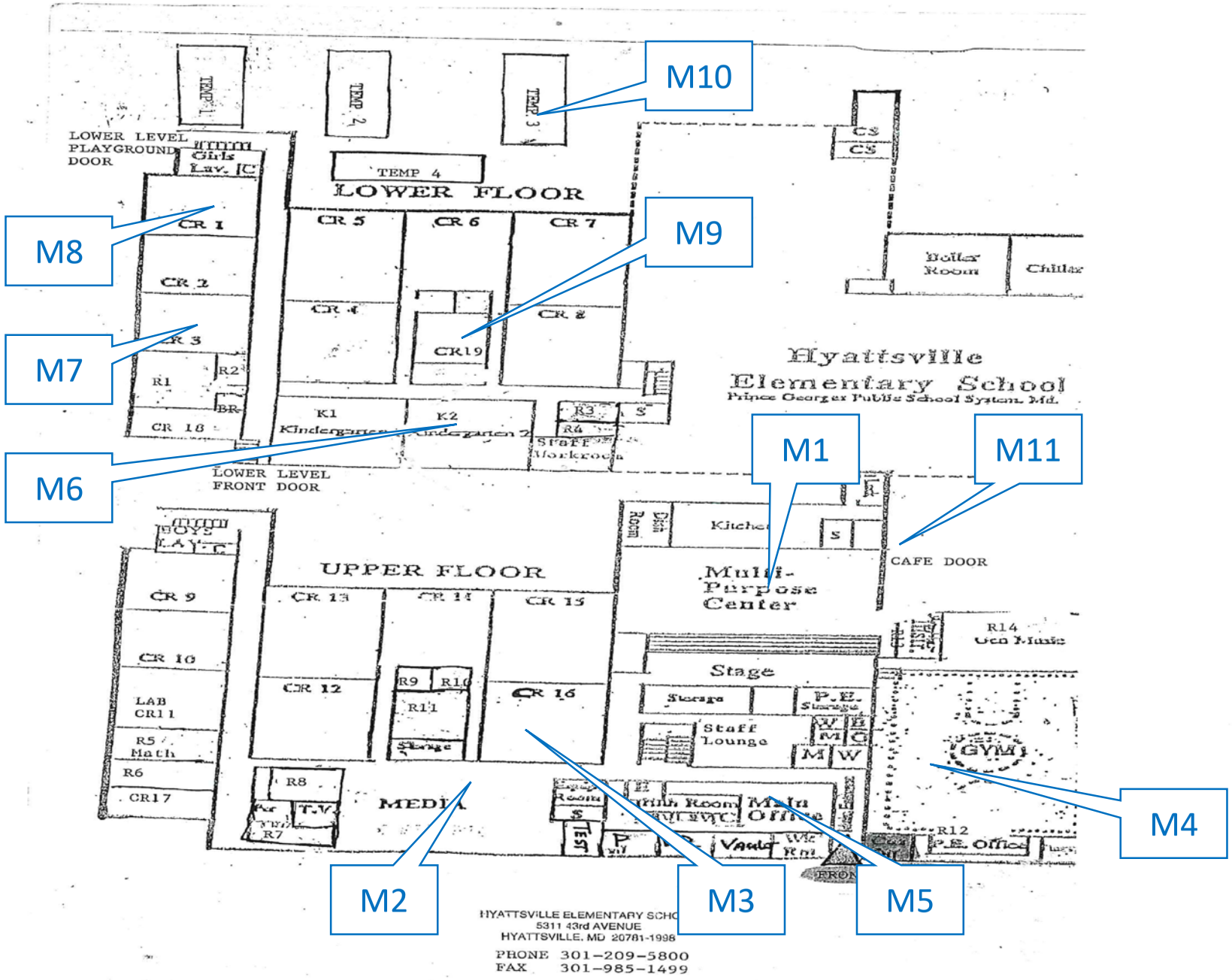
VALID SO LONG AS THIS CREDENTIAL IS RENEWED ACCORDING TO SCHEDULE AND IS NOT OTHERWISE REVOKED.

ANSI Accredited Program PERSONNEL CERTIFICATION

Accredited by the American National Standards Institute and the Council of Engineering and Scientific Specialty Boards

APPENDIX E

FLOOR PLAN WITH SAMPLING LOCATIONS


M10
M8
M9
M7
M6
M1
M11
M2
M3
M5
M4
TEMP 1
TEMP 2
TEMP 3
TEMP 4
LOWER LEVEL PLAYGROUND DOOR
LOWER FLOOR
CR 1
CR 2
CR 3
CR 4
CR 5
CR 6
CR 7
CR 8
CR19
CR 18
R1
R2
BR
K1
K2
R3
R4
Staff Workroom
LOWER LEVEL FRONT DOOR
Boiler Room
Chiller
Hyattsville Elementary School
Prince George's Public School System, Md.
UPPER FLOOR
CR 9
CR 10
LAB CR11
R5 Math
R6
CR17
CR 12
CR 13
CR 15
CR 16
R9
R10
R11
R8
R7
T.V.
MEDIA
Multi-Purpose Center
Kitchen
Dish Room
CAFE DOOR
Stage
Storage
P.E. Storage
Staff Lounge
Main Office
Vault
P.E. office
R12
R14
GYM
HYATTSVILLE ELEMENTARY SCHOOL
5311 43rd AVENUE
HYATTSVILLE, MD 20781-1998
PHONE 301-209-5800
FAX 301-985-1499