ESI Environmental Solutions, Inc.

www.esi4u.com (410)-867-6262

Discovery Post Remediation Clearance Report

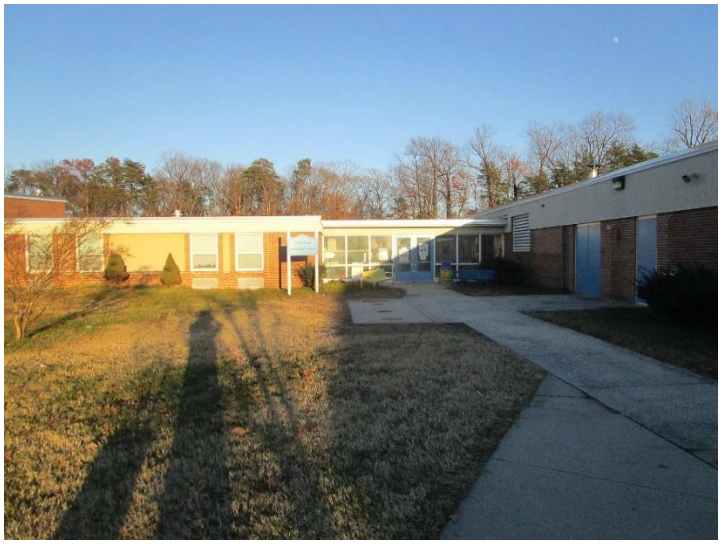
Project Contact Information

Sam Stefanelli Prince Georges County Public Schools 13300 Old Marlboro Pike, Trailer #5 Upper Marlboro, MD 20772 sam.stefanelli@pgcps.org	Alex Baylor Environmental Specialists Prince Georges County Public Schools 13306 Old Marlboro Pike Upper Marlboro, MD alex.baylor@pgcps.org	Vinny Gigliotti Environmental Solutions Inc. (410) 867-6262 6114 Drum Point Road Deale, MD 20751 vinny@esi4u.com

Property Location

3401 Hubbard Rd, Landover, MD 20785

Date of Inspection 1/17/2019



Prepared By: Vinny Gigliotti

Certified Indoor Environmentalist (CIE)

Dear Sam and Alex,

The results of the post remediation inspection and testing performed at Dodge Park Elementary School, located at 3401 Hubbard Rd, Landover, MD 20785 are concluded, and the findings are enclosed. I want to thank you for allowing ESI the opportunity to service your indoor environmental needs.

Included in this report are the observations, instrument readings, lab results, and recommendations for any areas inspected and/or tested that need additional cleaning or remediations. I illuminate the surfaces and if I see suspicious spots, I rub them to see if they will disappear. If they do not disappear, that's an indication the surface was cleaned, but the hyphae of the fungi extracts the nutrient from the substrate and leaves a stain. I have inspected hundreds of tables and other furnishings after remediation efforts have been performed throughout the PGCPS system thus far, and I am seeing a trend of staining, NOT mold spores.

Background Information

The school was first inspected and tested on 12/18/2018, and ESI returned to the school on 1/17/2019 to conduct a post remediation inspection and testing. The purpose of this post remediation inspection and testing is to determine if the areas remediated were properly cleaned and that NO health or environmental risk are present. If any problematic conditions are detected, ESI will make recommendations for corrective actions to be implemented by the PGCPS Environmental Team.

Observations and instrument readings

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 25	2395567	33	71	526	000	
Observations						
• There were NO signs of mold growth within this location. • The remediation and cleaning efforts were completed successfully, and the indoor air quality should pose no health or environmental risk.						
Recommendations						
NONE						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 24	2395554	28	72	791	000	
Observations						
• The remediation and cleaning efforts were completed successfully. Under the computer table were some suspicious spots. A swab culture was collected, and the lab results indicated NO FUNGI DETECTED.						
Recommendations						
• NONE						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 22	2395555	26	68	514	000	
Observations						
• There were NO signs of mold growth within this location. • The remediation and cleaning efforts were completed successfully, and the indoor air quality should pose no health or environmental risk.						
Recommendations						
NONE						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 26		26	72	531	001	
Observations						
• There were NO signs of mold growth within this location. • The remediation and cleaning efforts were completed successfully, and the indoor air quality should pose no health or environmental risk.						
Recommendations						
NONE						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 27	N/A	28	69	548	000	
Observations						
• There were NO signs of mold growth within this location. • The remediation and cleaning efforts were completed successfully.						
Recommendations						
NONE						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 29	N/A	23	69	445	000	
Observations						
• There were NO signs of mold growth within this location. • The remediation and cleaning efforts were completed successfully.						
Recommendations						
NONE						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 30	N/A	36	69	739	000	
Observations						
• There were NO signs of mold growth within this location. • The remediation and cleaning efforts were completed successfully. Under the table #2 were some suspicious spots. A swab culture was collected, and the lab results indicated NO FUNGI DETECTED.						
Recommendations						
None						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Room 6	N/A	36	69	739	000	
Observations						
• There was visible mold under the sink inside the cabinetry, along with animal / mouse feces. I collected a swab culture and the lab results indicated the sink cabinetry tested positive with Basidiospores and Cladosporium.						
Recommendations						
• HEPA vacuum rodent feces, then sanitize the surface of the cabinetry with 10% bleach and water solution. • Use same solution to sanitize mold from the cabinetry, this way you won't be mixing two toxic chemicals together when cleaning the same areas. The cabinetry is water damaged and should be discarded. If the cabinet can't be discarded at this time, I highly recommend encapsulating the inside of the sink cabinetry with a mold prohibitory paint such as IAQ 6100 or equivalent.						

Location	IAQ Sample #	R/H	Temp	CO2	Co	Other
Library	N/A	20	72	654	000	
Observations						
• There were NO signs of mold growth within this location. • The remediation and cleaning efforts were completed successfully.						
Recommendations						
None						

Conclusions/Recommendations

Indoor air quality samples of microbial and biological contaminates were collected to be analyzed by an independent laboratory. The samples in this report indicate a normal fungal ecology for each test location. Therefore, the indoor air quality passed, and based on the visual inspection and the lab results there are no health or environmental risks related to the remediation areas of the school, EXCEPT for Room # 6 where the sink cabinetry needs to be cleaned and encapsulated or replaced. (Please refer to the attached lab results below for identification and spore count per location.)

I hope you found our service beneficial. If you have any questions or concerns, please feel free to contact me at 301-509-0010 which my cell phone and or call my office at 410-867-6262.

Respectfully,

Vinny Gigliotte

Vinny Gigliotti (CIE)
Environmental Solutions, Inc.

Interpretation of Lab Results

In the enclosed Air Cassette Analysis report, you will notice Fungal Identification, which is the species detected in the breathable airspace inside, and outside. The Raw count is the actual number of spores counted on the slide, and the Count/m3 are the spores per cubic meter of air. The other particles are non-living particles such as dander, mycelial fragments, pollens, etc.

In order for humans to be exposed indoors, fungal spores, fragments, or metabolites must be released into the air and inhaled, physically contacted (dermal exposure), or ingested. Whether symptoms develop in people exposed to fungi depends on the nature of the fungal material (e.g., allergenic, toxic, or infectious), the amount of exposure, and the susceptibility of exposed persons.

Susceptibility varies with genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, state of health, and concurrent exposures.

SanAir Technologies Laboratory

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 3401
P.O. Number: VJG
Project Name: Dodge Park
Collected Date: 1/17/2019
Received Date: 1/21/2019 9:00:00 AM

SanAir ID Number
19002842
FINAL REPORT
1/22/2019 4:32:17 PM

Analyst: Smith, Kiersten

Air Cassette Analysis

ND = None Detected. Blank spaces indicate no spores detected.

SanAir ID Number	19002842-001			19002842-002			19002842-003			19002842-005		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2395567			2395554			2395555			2395566		
Sample Identification	Room 23			Room 24			Room 22			Outside Control Sample		
Sample Type	Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5		
Volume	25 Liters			25 Liters			25 Liters			25 Liters		
Analytical Sensitivity	40 Count/M^3			40 Count/M^3			40 Count/M^3			40 Count/M^3		
Background Density	1+			1+			1+			1+		
Other	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**
Dander	9	360	n/a	9	360	n/a	10	400	n/a	1	40	n/a
Fibers	1	40	n/a	2	80	n/a	2	80	n/a			
Fungal Identification	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**
Aspergillus/Penicillium	1	40	25									
Basidiospores	3	120	75	1	40	>99	2	80	>99	4	160	67
Cladosporium species										1	40	17
Epicoccum species										1	40	17
TOTAL	**4**	**160**		**1**	**40**		**2**	**80**		**6**	**240**	

Signature: K. Smith Date: 1/22/2019 Reviewed: Johnathan Wilson Date: 1/22/2019

SanAir Technologies Laboratory

SanAir ID Number
19002842
FINAL REPORT
1/22/2019 4:32:17 PM

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 3401
P.O. Number: VJG
Project Name: Dodge Park
Collected Date: 1/17/2019
Received Date: 1/21/2019 9:00:00 AM

Analyst: Smith, Kiersten

Direct Identification Analysis

SanAir ID: 19002842-006 Sample #:Swab 1 Room 24 Computer Table

D1 - Direct Identification Analysis on Surface Swab using STL 104

Direct ID of Mold

Fungi	Estimated Amount
No Fungi Detected	

SanAir ID: 19002842-007 Sample #:Swab 2 Room 30 5' Table #2

D1 - Direct Identification Analysis on Surface Swab using STL 104

Direct ID of Mold

Fungi	Estimated Amount
No Fungi Detected	

SanAir ID: 19002842-008 Sample #:Swab 3 Room 6 Under Sink

D1 - Direct Identification Analysis on Surface Swab using STL 104

Direct ID of Mold

Fungi	Estimated Amount
Basidiospores	Rare
Cladosporium species	Rare

Estimated Amount	Indication of Growth	Evidence of Mycelial Fragments/Conidiophores
Rare	Not Likely	None
Light	Possible	Some, 10 to 25% of Tape Covered
Moderate	Probable	Abundant, 25 to 50% of Tape Covered
Heavy	Significant	Throughout, 50 to 100% of Tape Covered

*Refer to additional information page for further details

Signature: K. Smith
Date: 1/22/2019

Reviewed: Johnathan Wilson
Date: 1/22/2019

SanAir Technologies Laboratory

SanAir ID Number
19002842
FINAL REPORT
1/22/2019 4:32:17 PM

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 3401
P.O. Number: VJG
Project Name: Dodge Park
Collected Date: 1/17/2019
Received Date: 1/21/2019 9:00:00 AM

Organism Descriptions

The descriptions of the organisms presented are derived from various reference materials. The laboratory report is based on the data derived from the samples submitted and no interpretation of the data, as to potential, or actual, health effects resulting from exposure to the numbers of organisms found, can be made by laboratory personnel. Any interpretation of the potential health effects of the presence of this organism must be made by qualified professional personnel with first hand knowledge of the sample site, and the problems associated with that site.

Dander - Comprised of human and/or animal skin cells. Counts may be higher in carpeted rooms and in rooms with more traffic.
Health Effects: May cause allergies.

Fibers - This category can include clothing, carpet, and insulation fibers.

Aspergillus/Penicillium - These spores are easily aerosolized. Only through the visualization of reproductive structures can the genera be distinguished. Also included in this group are the spores of the genera Acremonium, Phialophora, Verticillium, Paecilomyces, etc. Small, round spores of this group lack the necessary distinguishing characteristics when seen on non-viable examination.
Health Effects: Can cause a variety of symptoms including allergic reactions. Most symptoms occur if the individual is immunocompromised in some way (HIV, cancer, etc). Both Penicillium and Aspergillus spores share similar morphology on non-viable analysis and therefore are lumped together into the same group.

Basidiospores - From the Subphylum Basidiomycotina which contains the mushrooms, shelf fungi, and a variety of other macrofungi. They are saprophytes, ectomycorrhizal fungi or agents of wood rot, which may destroy the structure wood of buildings. It is extremely difficult to identify a specific genera of mushrooms by using standard culture plate techniques. Some basidiomycete spores can be identified by spore morphology; however, some care should be exercised with regard to specific identification. The release of basidiospores is dependant upon moisture, and they are dispersed by wind.
Health Effects: Many have the potential to produce a variety of toxins. Members of this group may trigger Type I and III fungal hypersensitivity reactions. Rarely reported as opportunistic pathogens.

Cladosporium species - The most commonly identified outdoor fungus. The outdoor numbers are reduced in the winter and are often high in the summer. Often found indoors in numbers less than outdoor numbers. It is commonly found on the surface of fiberglass duct liner in the interior of supply ducts. A wide variety of plants are food sources for this fungus. It is found on dead plants, woody plants, food, straw, soil, paint and textiles. Often found in dirty refrigerators and especially in reservoirs where condensation is collected, on moist window frames it can easily be seen covering the whole painted area with a velvety olive green layer.
Health Effects: It is a common allergen. It can cause mycosis. Common cause of extrinsic asthma (immediate-type hypersensitivity: type I). Acute symptoms include edema and bronchiospasms, chronic cases may develop pulmonary emphysema. Illnesses caused by this genus can include phaeohyphomycosis, chromoblastomycosis, hay fever and common allergies.
References: Flannigan, Brian, Robert A. Samson, and J. David Miller, eds. Microorganisms in Home and Indoor Work Environments: Diversity, Health Impacts, Investigation, and Control. London and New York: Taylor & Francis, 2001.

Epicoccum species - It is found in plants, soil, grains, textiles, and paper products. Frequently isolated from air and occasionally occurs in house dust. Is a saprophyte and considered a weakly parasitic secondary invader of plants, moldy paper and textiles. Epicoccum is usually isolated with either Cladosporium species or Aureobasidium species.
Health Effects: A common allergen. It also has the potential to produce type I fungal hypersensitivity reactions.
References: Flannigan, Brian, Robert A. Samson, and J. David Miller, eds. Microorganisms in Home and Indoor Work Environments: Diversity, Health Impacts, Investigation, and Control. London and New York: Taylor & Francis, 2001.

Industry References

Since the 1993 New York City Department of Health (NYCDOH) document (Assessment and remediation of *Stachybotrys Atra* in Indoor Environments) was produced, several other guidance documents have been written. This report was developed in accordance with and including:

- *Fungal Contamination in Buildings: A Guide to Recognition and Management* (Health Canada, 1995).
- *Control of Moisture Problems Affecting Biological Indoor Air Quality* (Flannigan and Morey, 1996).
- *Bioaerosols: Assessment and Control* (American Conference of Government Industrial Hygienists [ACGIH], 1999).
- *Guidelines on Assessment and Remediation of Fungi in Indoor Environments* (NYCDOH, 2000). [external link]
- *Mold Remediation in Schools and Commercial Buildings* (U.S. EPA, 2001).
- *Report of the Microbial Growth Task Force* (The American Industrial Hygiene Association, 2001).
- *Fungal Contamination: A manual for investigation, remediation and control (BECi) 2005*.
- *29 CFR 1910, Occupational Safety and Health Standards for General Industry, U.S. Department of Labor*
- Institute of Inspection, Cleaning and Restoration Certification Standard IICRC S520 *29 CFR 1926, Occupational Safety and Health Standards for the Construction Industry,* U.S. Department of Labor
- *40 CFR 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), U.S. Environmental Protection Agency*
- *ACR 2006, Assessment, Cleaning and Restoration of HVAC Systems, National Air Duct Cleaners Association, 2006**
- *ASHRAE Standards 62.1 or 62.2*
- *ASTM D-1653, Standard Test Methods for Water Vapor Transmission of Organic Coating Films*
- *Bioaerosols: Assessment and Control,* American Conference of Governmental Industrial Hygienists, 1999
- *Field Guide for Determination of Biological Contaminants in Environmental Samples, American Industrial Hygiene Association, 2005*
- *A Guide for Mold Remediation in Schools and Commercial Buildings, US Environmental Protection Agency, 2001 Protecting the Built Environment: Cleaning for Health, Michael A. Berry Ph.D., 1993*
- *IICRC S100 Standard and Reference Guide for Professional Carpet Cleaning, Fourth Edition, Institute of Inspection, Cleaning and Restoration Certification, (S100)**
- *IICRC S300 Standard and Reference Guide for Professional Upholstery Cleaning, First Edition, Institute of Inspection, Cleaning and Restoration Certification, (S300)**
- *ANSI/IICRC S500 Standard and Reference Guide for Professional Water Damage Restoration, Third Edition, Institute of Inspection, Cleaning and Restoration Certification, (S500)**