

P.O. Box 25945 St. Croix, V.I. 00824 954-294-1241 fastrack.restoration@gmail.com

Summary of Laboratory Analysis for Air Quality

Prepared for:

St. Croix Educational Complex High School St. Croix V.I. 00820

Prepared By:

Fast Track Restoration Services



Fast Track Restoration Services P.O. Box 25945 St. Croix, V.I. 00824 954-294-1241 fastrack.restoration@gmail.com

April 21, 2024

Davidson Charlemagne Virgin Islands Department of Education Plant Operations

Re: In-door Air Quality (Mold) Testing at St. Croix Educational Complex High School

Scope of Work and Methods

Fast Track Restoration and Cleaning Services performed an air quality (mold) testing to the following areas *(library, nurses' room, and health office)* in St. Croix Educational School Complex located at P6F2 Centerline Road, St. Croix 00820; and have prepared this report summarizing our inspection findings and laboratory results of the indoor air quality (mold) testing.

Air Sampling and Analysis

The air sampling methodology utilized for this project was designed to quantify the respective airborne presence of fungal spores in the interior workspaces in relationship to what is naturally occurring outdoors, commonly referred to as normal fungal ecology. Air samples are collected by utilizing a high volume-sampling pump calibrated to a flow rate of 5 liters per 5 minutes. The pump then impacts the drawn air into an "Pro5" cassette. The cassette is a fully contained microscopic slide and media that collects any airborne fungal spores and hyphae particles by impaction on the media.

A control/baseline air sample was collected outdoors for comparison purposes; an indoor air samples were collected in and near workspaces where mold-remediation and restoration were performed. After sample collection, the cassettes are re-sealed and placed into individual plastic bags and shipped via overnight courier to Pro-Lab. for direct microscopic examination. There, a microbiologist examined the slides to identify the type, and determine the airborne concentration of, fungal spores present. Spore identification is to genus level unless otherwise specified.

Summary of Laboratory Analysis

Three air samples were collected from inside the building, and one air sample from outside was analyzed. The outside sample which is the "control" is a baseline sample showing what the spore count and diversity is at the time of sampling.

"In enclosed spaces, a typical mold spore count ranges between 200 and 500 spores. A normal and safe mold spore count in a room is typically between 1 and 1500, provided there's no visible mold growth or water damage. Mold spores are commonly found in nearly every environment and can enter through various means, including plants, open windows, and clothing. A count slightly above 1500, around 4 times higher, is considered slightly elevated."

Interpretation:

The indoor air sample was consistent with normal fungal ecology and showed no elevated presence of airborne mold spore concentrations existing. The concentrating levels are within acceptable limits according to the industry standards. However, the mold spores count in library tested were approaching an elevated state and showed a slight proximity to the samples collected from the external environment. Therefore, the library should be monitored, and preventative measures are recommended.

The sample results can be found in the laboratory report.

Recommendations:

1. Mold remediation to reduce spore levels and address the water leaks or moisture issue promptly:

• The library: presence of moisture on roof ceiling tiles walls under

Recommended Remediation Steps:

- a. Source Identification and Elimination:
 - Conduct a thorough inspection to identify and rectify any water leaks, plumbing issues, or areas of excessive moisture.
 - Address and repair any water damage promptly.

b. Cleaning and Removal:

- Engage professional mold remediation services to safely clean and remove visible mold growth.
- Dispose of contaminated materials properly according to regulations.

c. Ventilation and Dehumidification:

- Improve ventilation in damp areas to reduce humidity levels.
- Install dehumidifiers in areas prone to high humidity.

d. Sealing and Encapsulation:

- Seal and encapsulate porous surfaces after mold removal to prevent future growth.
- Use mold-resistant paints and materials where applicable.

e. HVAC System Inspection:

- Inspect and clean HVAC systems, including air ducts and filters, to prevent the spread of mold spores.
- Consider installing high-efficiency particulate air (HEPA) filters.

f. Post-Remediation Verification:

• After remediation, conduct another air quality test to ensure that mold spore levels have returned to acceptable levels.

g. Preventive Measures:

- Educate occupants about proper ventilation practices and mold prevention strategies.
- Regularly inspect and maintain the property to address potential moisture issues promptly.

Conclusion 1: The above recommendations aim to address the identified moisture issues at the identified areas tested at St. Croix Educational School Complex effectively. Engaging professional mold remediation services is strongly advised to ensure a thorough and safe remediation process.

2. Deep cleaning recommended to bring spore levels down in the library.

Conclusion 2: Based on the air quality testing, the mold concentration levels are generally within acceptable ranges. However, it is advisable for the client to take preventative measures to maintain a healthier indoor environment.

Vidal Davis,

Vidal Davis

Certified Microbial Remediation Specialist



1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

ST.CROIX EDUCATIONAL COMPLEX HIGH SCHOOL

FAST TRACK RESTORATION

FORT LAUDERDALE, FL 33325

Certificate of Mold Analysis

Prepared for:

FAST TRACK RESTORATION

Phone Number:

(678) 772-5787

Fax Number:

Project Name: Test Location:

Report Number: Received Date:

Report Date:

SAINT CROIX , VI 00820 1732801

April 17, 2024

April 17, 2024

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Diana Sauri, Laboratory Director or other approved signatory

Currently there are no Federal regulations for evaluating potential health effects of fungal contamination and remediation. This information is subject to change as more information regarding fungal contaminants becomes available. For more information visit http://www.epa.gov/mold or www.nyc.gov/html/doh/html/epi/mold.shtml. This document was designed to follow currently known industry guidelines for the interpretation of microbial sampling, analysis, and remediation. Since interpretation of mold analysis reports is a scientific work in progress, it may as such be changed at any time without notice. The client is solely responsible for the use or interpretation. PRO-LAB/SSPTM Inc. makes no express or implied warranties as to health of a property from only the samples sent to their laboratory for analysis. The Client is hereby notified that due to the subjective nature of fungal analysis and the mold growth process, laboratory samples can and do change over time relative to the originally sampled material. PRO-LAB/SSPTM Inc. reserves the right to properly dispose of all samples after the testing of such samples are sufficiently completed or after a 7 day period, whichever is greater.



For more information please contact PRO-LAB at (954) 384-4446 or email info@prolabinc.com



1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Prepared for: FAST TRACK RESTORATION

Test Address : ST.CROIX EDUCATIONAL COMPLEX HIGH SCHOOL

ANALYSIS METHOD	6110 Air Direct Examination		6110 Air Direct Examination			6110 Air Direct Examination			6110 Air Direct Examination			
LOCATION	LIBRARY		NURSES ROOM		HEALTH ROOM		OUTSIDE					
COC / LINE #	1732801 - 1		1732801 - 2		1732801 - 3		1732801 - 4					
SAMPLE TYPE	PRO-15		PRO-15		PRO-15		PRO-15					
VOLUME	150.00L		150.00L			150.00L			150.00L			
SERIAL NUMBER	Q2387416		Q2386419			Q2386418			Q2387388			
COLLECTION DATE	Jan 17, 2024		Jan 17, 2024			Jan 17, 2024			Jan 17, 2024			
ANALYSIS DATE	Apr 17, 2024		Apr 17, 2024			Apr 17, 2024			Apr 17, 2024			
CONCLUSION	NC	NOT ELEVATED NOT ELEVATED NOT ELEVA		OT ELEVAT	ED CONTROL							
IDENTIFICATION	Raw Count	Spores per m ³	Percent of Total	Raw Count	Spores per m ³	Percent of Total	Raw Count	Spores per m ³	Percent of Total	Raw Count	Spores per m ³	Percent of Total
Cladosporium	8	53	10				4	27	33	4	27	11
Hyphae	4	27	5				4	27	33	4	27	11
Other Ascospores	4	27	5							8	53	22
Penicillium/Aspergillus	64	430	80	8	53	100	4	27	33	8	53	22
Rusts										4	27	11
Smuts, myxomycetes										4	27	11
Spegazzinia										4	27	11
TOTAL SPORES	80	537	100	8	53	100	12	81	100	36	241	100
MINIMUM DETECTION LIMIT	4	27		4	27		4	27		4	27	
BACKGROUND DEBRIS	Light		Light			Light			Moderate			
OBSERVATIONS & COMMENTS												

SAINT CROIX, VI 00820

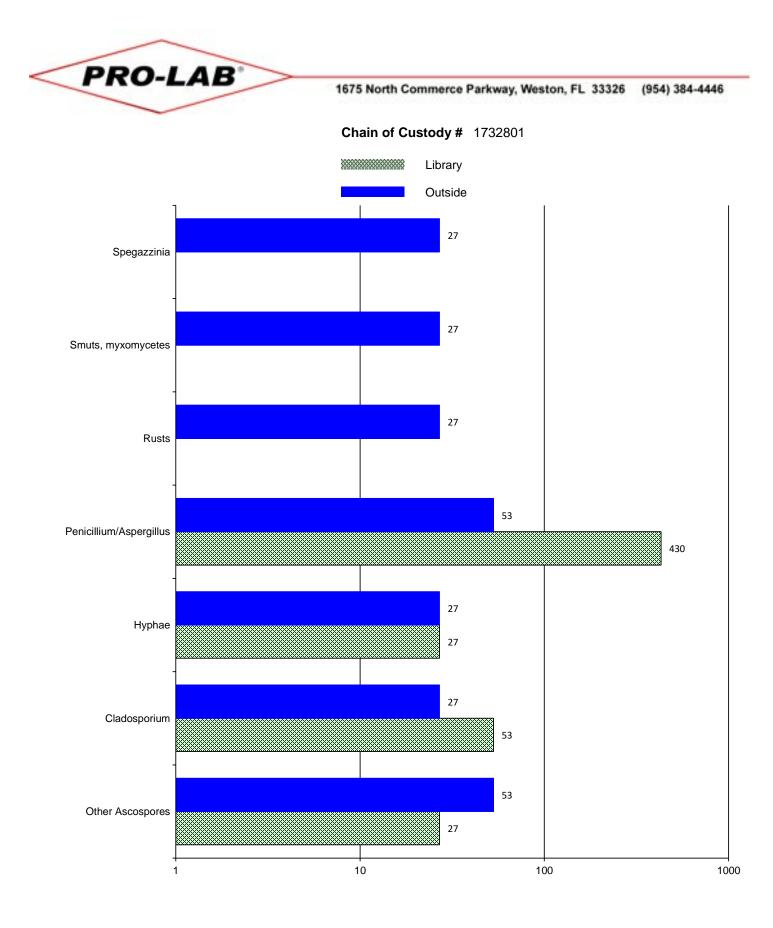
Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Light (None to up to 25% obstruction); Medium (26% to up to 75% obstruction); Heavy (76% to up to 90% obstruction); To Heavy (Greater than 90% obstruction). Increasing amounts of debris will obscure small spores and can prevent spores from impacting onto the slide. The actual number of spores present in the sample is likely higher than reported if the debris estimate is 'Heavy' or 'Too Heavy for Accurate Count'. All calculations are rounded to two significant figures and therefore, the total percentage of spore numbers may not equal 100%. The effect of the results relate only to the items tested. The methods used in this analysis have been validated and is fit for the intended use. R "version" indicated after the lab ID# indicates a sample with amended data. PRO-LAB/SSPTM Inc. does not perform any sample collection. The information is supplied by the customer and can affect the validity of results. The results apply to the sample as received.

* Minimum Detection Limit. Based on the volume of air sampled, this is the lowest number of spores that can be detected and is an estimate of the lowest concentration of spores that can be read in the sample. NA = Not Applicable

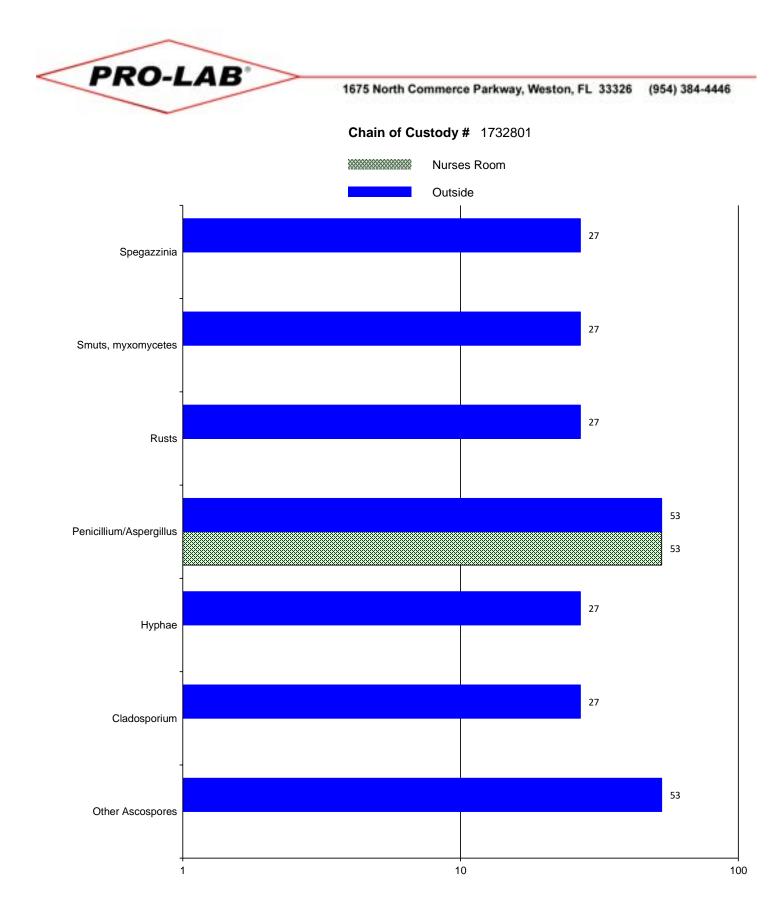
Spores that were observed from the samples submitted are listed on this report. If a spore is not listed on this report it was not observed in the samples submitted.

Interpretation Guidelines: A determination is added to the report to help users interpret the mold analysis results. A mold report is only one aspect of an indoor air quality investigation. The most important aspect of mold growth in a living space is the availability of water. Without a source of water, mold generally will not become a problem in buildings. These determinations are in no way meant to imply any health outcomes or financial decisions based solely on this report. For questions relating to medical conditions you should consult an occupational or environmental health physician or professional. CONTROL is a baseline sample showing what the spore count and diversity is at the time of sampling. The control sample(s) is usually collected outside of the structure being tested and used to determine if this sample(s) is similar in diversity and abundance to the inside sample(s).

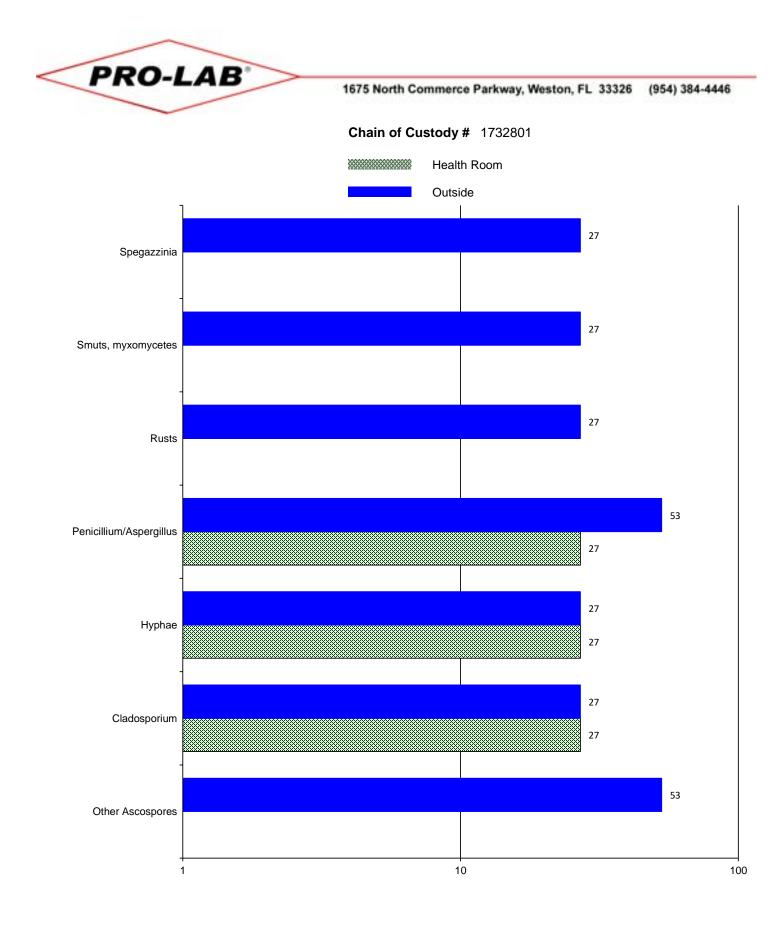
ELEVATED means that the amount and/or diversity of spores, as compared to the control sample(s), and other samples in our database, are higher than expected. This can indicate that fungi have grown because of a water leak or water intrusion. Fungi that are considered to be indicators of water damage include, but are not limited to: Chaetomium, Fusarium, Memnoniella, Stachybotrys, Scopulariopsis, Ulocladium. NOT ELEVATED means that the amount and/or the diversity of spores, as compared to the control sample and other samples in our database, are lower than expected and may indicate no problematic fungal growth. UNUSUAL means that the presence of growth was observed in the analyzed sample. An abundance of spores are present, and/or growth structures including hyphae and/or fruiting bodies are present and associated with one or more of the types of mold/fungi identified in the analyzed sample. NORMAL means that no presence of growth was observed in the analyzed sample. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.



Spores per cubic meter



Spores per cubic meter



Spores per cubic meter



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Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments	
Cladosporium	The most common spore type reported in the air worldwide. Found on dead and dying plant litter, and soil.	Commonly found on wood and wallboard. Commonly grows on window sills, textiles and foods.	Type I (hay fever and asthma), Type III (hypersensitivity pneumonitis) allergies.	A very common and important allergen source both outdoors and indoors.	
Hyphae	Common everywhere.	All substrates.	None known.	Hyphae are the "root-like" food absorption strands common to nearly all fungi. They sometimes can become airborne.	
Ascospores	Common everywhere. Constitutes a large part of the airspora outside. Can reach very high numbers in the air outside during the spring and summer. Can increase in numbers during and after rainfalls.	Very few of this group grow inside. The notable exception is Chaetomium, Ascotricha and Peziza.	Little known for most of this group of fungi. Dependent on the type (see Chaetomium and Ascotricha).		
Penicillium/Aspergillus	Common everywhere. Normally found in the air in small amounts in outdoor air. Grows on nearly everything.	Wetted wallboard, wood, food, leather, etc. Able to grow on many substrates indoors.	Type I (hay fever and asthma) allergies and Type III (hypersensitivity pneumonitis) allergies.	This is a combination group of Penicillium and Aspergillus and is used when only the spores are seen. The spores are so similar that they cannot be reliably separated into their respective genera.	
Rusts	Common everywhere growing on grasses, trees and other living plants.	Does not grow indoors.	Type I (hay fever and asthma) allergies.	Rust requires a living plant host to complete part of its lifecycle and thus, is not normally found growing indoors except perhaps on an infected house plant.	
Smuts, myxomycetes	Commonly found everywhere, espcially on logs, grasses and weeds.	Smuts don't normally grow indoors, but can occasionally be found on things brought from outside and stored in the house. Myxomycetes can occasionally grow indoors, but need lots of water to be established.	Type I (hay fever and asthma) allergies.	Smuts and myxomycetes are a combined group of organisms because their spores look so similar and cannot be reliably distinguished from each other.	
Spegazzinia	Not commonly observed, but widely distributed.	Not known to grow indoors.	None known.	Frequently seen especially in southern United States.	