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PREPARED FOR: DOC SHANE TEST CLIENT ACCOUNT

TEST ADDRESS: 123 ALVES STREET IRVINE, CA 94544

CERTIFICATE OF MOLD ANALYSIS

PREPARED FOR:

DOC SHANE TEST CLIENT ACCOUNT

PHONE NUMBER: (888) 854-0478

EMAIL: DOCSHANE@INSPECTORLAB.COM

TEST LOCATION:

MAX HEADROOM

123 ALVES STREET

IRVINE, CA 94544

CHAIN OF CUSTODY # 52256534

COLLECTED: THU APRIL 11, 2019

RECEIVED: MON APRIL 15, 2019

REPORTED:

APPROVED BY:

**JOHN D. SHANE PHD
LABORATORY MANAGER**

VERSION: 1.0 (A VERSION NUMBER GREATER THAN ONE (1) INDICATES THAT THE DATA IN THIS REPORT HAS BEEN AMENDED)

EPA regulations or standards for airborne or surface mold concentrations have not been established. There are also no EPA regulations or standards for evaluating health effects due to mold exposure. Information about mold can be found at www.epa.gov/mold.

All samples were received in an acceptable condition for analysis unless noted specifically in the Comments section under a particular sample. All results relate only to the samples submitted for analysis.

A version greater than 1.0 indicates that the lab report has been revised.

IF YOU HAVE QUESTIONS REGARDING THIS REPORT, PLEASE CONTACT INSPECTORLAB AT (888) 854-0477 OR EMAIL ASK@INSPECTORLAB.COM.

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Detailed Mold Report (WATER-INDICATING FUNGI, IF PRESENT, ARE SHOWN BELOW IN RED)

Analysis Method	Surface Analysis	Surface Analysis	Surface Analysis	Surface Analysis
Lab Sample #	52256534-1	52256534-2	52256534-3	52256534-4
Sample Identification	SWAB 1	SWAB 2	2394757	SWAB 4
Sample Location	KITCHEN WALL	DINING ROOM BASEBOARD	KITCHEN CEILING	FAMILY ROOM NORTH WALL
Sample Type / Metric	Swab	Swab	Bio-Tape	Swab
Analysis Date	Mon April 15, 2019	Mon April 15, 2019	Mon April 15, 2019	Mon April 15, 2019
Determination	GROWTH	NO GROWTH	NO GROWTH	GROWTH

Fungal Types Identified	Mold Present	Mold Present	Mold Present	Mold Present
Alternaria	---	---	---	X
Aspergillus	X	---	---	---
Chaetomium	X	---	---	---
Emericella	X	---	---	---
Hyphae	---	---	---	X
Penicillium/Aspergillus	---	---	---	X
Total Spore Count	X	N/A	N/A	X
Minimum Detection Limit	N/A	N/A	N/A	N/A
Comments/Definitions Raw Count: Actual number of spores observed and counted. Spores/m³: Spores per cubic meter. % of Total: Percentage of a particular spore in relation to total number of spores. X: Spore type was observed. --- : Spore type was not observed.	Presence of current or former MOLD GROWTH observed. EXPOSURE TO SPORES LIKELY and will continue if the growth is not removed. An active or intermittent water source will cause the mold to continue to grow if the water source is not eliminated.	NO GROWTH or former mold growth observed. NO FUNGAL SPORES OBSERVED in this sample.	NO GROWTH or former mold growth observed. NO FUNGAL SPORES OBSERVED in this sample.	Presence of current or former MOLD GROWTH observed. EXPOSURE TO SPORES LIKELY and will continue if the growth is not removed. An active or intermittent water source will cause the mold to continue to grow if the water source is not eliminated.

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Introduction

All spores found in indoor air are also normally found in outdoor air because most originate or live in the soil and on dead or decaying plants. Therefore, it is not unusual to find mold spores in indoor air. This Mold Glossary is only intended to provide general information about the mold found in the samples that were provided to the laboratory.

Alternaria

Outdoor Habitat: One of the most commonly observed spores in the outdoor air worldwide, normally in low numbers.

Indoor Habitat: Capable of growing on a wide variety of substrates and manufactured products found indoors when wetted.

Allergy Potential: Type I (hay fever, asthma), Type III (hypersensitivity pneumonitis), Common cause of extrinsic asthma

Disease Potential: Not normally considered a pathogen, but can become so in immunocompromised persons.

Toxin Potential: Several known

Comments: One of the most common and potent allergens in the indoor and outdoor air. Seen in indoor air in low concentrations, probably as a result of outdoor air infiltration and/or recycling of settled dust.

Aspergillus

Outdoor Habitat: Soil and decaying vegetation, various other kinds of substrates

Indoor Habitat: Capable of growing on a wide variety of substrates and manufactured products found indoors when wetted, including dusts, leather, paint, paper, rubber, textiles

Allergy Potential: Type I (hay fever, asthma), Type III (hypersensitivity pneumonitis), can cause allergic sinusitis, and ABPA (allergic bronchopulmonary aspergillosis)

Disease Potential: Second most common pathogen for humans next to *Candida*, but not normally considered a pathogen, but can become so in immunocompromised persons.

Toxin Potential: Several species of *Aspergillus* produce toxins, including aflatoxin B1 & B2, cyclopiazonic acid, kojic acid, ergot alkaloids, fumigaclavines, gliotoxin, fumigatoxin, fumigillin, fumitremorgens, helvolic acid, tryptoquivaline tremorgens, verruculogen, malformin C, oxalic acid, austocystins, aspercolorin, averufin, cyclopiazonic acid, sterigmatocystin, versicolorin.

Comments: *Aspergillus niger*-like spores are the most common group identified in the indoor air.

Aspergillus identified in air samples indicates that the fruiting bodies were observed. This usually suggests that the source of the mold is nearby and / or a growth was disturbed. The fruiting bodies are not easily sent airborne, nor do they stay in the air long.

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Chaetomium

Outdoor Habitat: Commonly found on paper products, soil, decaying vegetation, wood and natural fiber textiles (such as jute-backed carpets, canvas, etc.) and similar materials. They are rarely identified in outdoor air. These spores can be disseminated by insects, wind and water splash, etc. It is also known as a soft-rot fungus for softwood and hardwood timber.

Indoor Habitat: Chaetomium is often found on a variety of substrates containing cellulose that are chronically wetted, including paper documents, wallpaper, textiles and construction materials like gypsum board (paper-coated sheet rock) and wood.

Chaetomium can development quickly, covering a surface with substantial growth after two weeks.

Chaetomium globosum is the most commonly found species indoors. It is not that unusual to find the occasional Chaetomium spore in the air indoors.

Allergy Potential: Type I (hay fever, asthma) potential. However, no allergens have yet been characterised. However, at least two potential allergens have been isolated.

Disease Potential: Rarely reported as human pathogen.

Toxin Potential: Several known

Comments: Chaetomium spores are easily disseminated when it becomes dry. However, Chaetomium spores do not remain airborne for long unless disturbed.

High numbers of spores of this genus is not normal for indoor environments and indicate a current or former water problem. Furthermore, since the spores are held together by mucilage and trapped by hairs, few become airborne until the mold has completely dried out or is mechanically disturbed during renovations remediation. It is, therefore, not uncommon to find low Chaetomium spore counts in pre-remediation air samples and relatively higher counts in post-remediation samples.

Chaetomium species colonize surfaces under similar conditions as Stachybotrys, Alternaria, Fusarium and Ulocladium.

HIGH CONCENTRATIONS AND LONG EXPOSURES TO CHAETOMIUM SHOULD BE AVOIDED.

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Emericella**Outdoor Habitat:** Soil and decaying vegetation**Indoor Habitat:** Plant matter, food, cellulytic substrates**Allergy Potential:** None known**Disease Potential:** None known**Toxin Potential:****Comments:*****Hyphae*****Outdoor Habitat:** Soil and decaying vegetation**Indoor Habitat:** Wetted wood and gypsum wallboard paper**Allergy Potential:** Known to be allergenic.**Disease Potential:** None known**Toxin Potential:** None known**Comments:** "Root-like" structures of fungal growth that can become airborne and may be allergenic.

When hyphae are found growing on a surface and associated with fruiting bodies and/or fungal spores, they indicate that growth has taken place and remedial action is suggested. Sometimes hyphae grow and do not produce spores. A hyphal mass is indicative of mold growth.

Penicillium/Aspergillus**Outdoor Habitat:** Soil and decaying vegetation, textiles, fruits. These spores are commonly observed and are a normal part of outside air.**Indoor Habitat:** Wetted wood and gypsum wallboard paper, textiles, leather, able to grow on many types of substrates.**Allergy Potential:** Type I (hay fever, asthma), Type III (hypersensitivity pneumonitis)**Disease Potential:** Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals.**Toxin Potential:** Several known**Comments:** Extremely common in indoor air in low amounts. This type of spore should not constitute an overwhelming percentage and be present in very high numbers.

These two genera are grouped together because they cannot be reliably differentiated into their respective genera based solely on spore morphology.