

## **GREENWORKS SERVICE COMPANY**

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GREENWORKS MOLD INSPECTION



### Jeffrey Marquardt

TREC #22619, TBPE FIRM #20170, MOLD FIRM #ACO1162, TPCL FIRM #0761253 281-962-5825

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This inspection was conducted in accordance with state regulations as well as current industry guidelines and practices. This is not a certificate, assurance, warranty or guarantee of future conditions or performance, but is an inspection of the conditions present and detected on the date of this inspection.

Disclaimer: It is important to note that mold sampling results may yield inconclusive or misleading information. Caution must be used in relying on sampling results to render a conclusion. Concentrations of indoor environments can change dramatically based on a number of factors. Standards or Threshold Limit Values (TLVs) for airborne concentrations of mold, or mold spores, have not been set. Currently, there are no EPA regulations or standards for airborne mold contaminants.

NOTE: Pictures are a representative sample, and may not display every defect.

GreenWorks Inspections was contacted by the Client listed on the report to conduct a mold inspection which includes taking samples within the inspected property to confirm/deny the presence of fungal growth. The purpose of this inspection is to determine if there were any underlying mold and moisture intrusion conditions affecting interior air quality in the inspected property. This report is solely for the benefit of the Client. Any person or party designated by the Client to receive information in this report shall be subject to the TERMS AND CONDITIONS contained herein. Such designation shall be provided in writing to the inspector.

Molds are part of the natural environment and are simple, microscopic organisms whose purpose is to break down dead materials. Molds can be found on plants, dry leaves, and about every other organic material. Mold spores are lightweight and are spread by air currents. If spores land on a suitable surface, they will begin to grow. In order to thrive, mold requires four things to grow: water, organic materials, oxygen, and an optimum temperature. Mold growth is often seen as discoloration and can grow in several different colors. The most common are white, orange, pink, blue, green, black, or brown.

Health problems associated with high levels of airborne mold spores may include allergic reactions, asthma episodes, irritations of the eye, nose, and throat, sinus congestion, and other respiratory problems.

## **SUMMARY**

- 1.2.1 Inspection Details Sample 2: Aspergillus / Penicillium
- 1.2.2 Inspection Details Sample 2: Cladosporium
- 1.2.3 Inspection Details Sample 2: Myxomycete / Periconia / Smut
- 1.2.4 Inspection Details Sample 2: Alternaria
- 1.3.1 Inspection Details Sample 3: Aspergillus / Penicillium
- 1.3.2 Inspection Details Sample 3: Cladosporium
- 1.3.3 Inspection Details Sample 3: Hyphal Fragments
- 1.3.4 Inspection Details Sample 3: Scopulariopsis
- 1.3.5 Inspection Details Sample 3: Ascospores
- 1.4.1 Inspection Details Sample 4: Hyphal Fragments

## 1: INSPECTION DETAILS

#### **Information**

#### **Foundation Type**

Slab on Grade

#### **Structure Type**

Commercial Structure, Retirement Community

#### **Moisture Meter**

Protimeter BLD5365 Surveymaster Dual Function

#### **Swab**

Copan Sterile Transport Swab

# Sample 1: Humidity (%) 35.9 %

Sample 2: Ui

### Sample 2: Humidity (%)

35.2 %

#### Occupancy

Occupied (Viewing Restricted)

#### **Weather Conditions**

Clear

#### Temp/Humidity Zenith

Zenith Portable CO2 Detector with Temperature and Humidity

#### **Infrared**

Flir Infrared Inspection Camera

#### In Attendance

Client, Tenant/Occupants, Contractors, Property Management

#### **Zephon Pump**

Zephon Z-lite Linear pump with Integrated Flow Meter

#### **Allergenco Cassette**

Allergenco Cassettes

### Sample 1: Temperature (°F)

71.8 Degrees Fahrenheit



### Sample 1: Carbon Dioxide

501 ppm

#### Sample 2: Carbon Dioxide

724 ppm

# **Sample 2: Temperature (°F)** 72.8 Degrees Fahrenheit

### Sample 3: Temperature (°F)

77.7



#### Sample 3: Humidity (%)

35.2

## Sample 3: Carbon Dioxide

854

## Sample 4: Location of Sample

Unit A/HVAC Closet



Sample 4: Temperature (°F)

Sample 5: Location of Sample
Unit A/Water Heater Closet



Sample 5: Carbon Dioxide

Sample 4: Humidity (%)

Sample 5: Temperature (°F)

**Sample 4: Carbon Dioxide** 

0

Sample 5: Humidity (%)

0

#### **General Information**

Inspector is not responsible for or liable for the non-discovery of any, water problems, mold contamination, or any other problems that were not discovered due to inadequate sampling in specific areas where sampling was not requested and paid for or where not readily visible clues existed that would have warranted sampling in those areas. Your inspector is unlikely to sample for, or locate mold which may be hidden inside walls, behind wall paper, appliances, furniture or other inaccessible areas.

#### **How to Stop Mold**

- To stop mold growth, it is important to first stop water/moisture concerns. Mold spores will not grow if moisture is not present. Indoor mold can and should be prevented or controlled by controlling moisture.
- Look for evidence of water penetrating the structure by locating water stains or moist areas and remedy the water source.
- Look at the plumbing system for any leaks. Common leaks may be caused by a damaged toilet seal or from an original sink or bathtub drain.
- Check out the HVAC system condensation drain lines for any leaks or if they are properly insulated to prevent water dripping from the lines themselves.
- Remember to always vent your clothes dryer directly to the exterior. (If present within the structure)
- Clean out gutters regularly and roof should be monitored for areas of leaking.
- Install exhaust vent fans in recommended areas if the structure was not equipped with them originally. The exhaust vent fans should be vented directly to the exterior.

If mold growth is discovered GreenWorks recommends utilization of a mold remediation contractor to perform any selective demolition of wall materials or removal of visible molds.

Thank you for using GreenWorks Inspections to perform this testing for you.

#### **Visible Growth Observed**

Visible growth was observed at the time of inspection. The growth observed was approximately sq. ft.

#### **Sample 1: Location of Sample**

Exterior (Comparison)







Sample 2: Location of Sample
Unit B Common Area/Living







**Sample 3: Location of Sample**Unit A Common Area/Kitchen







#### Sample 4: Low Mold Levels Per Testing

The molds listed in the samples were equal to or lower than the outside comparison sample. Indicating no significant concern in this area at the time of inspection.

#### Sample 5: Low Mold Levels Per Testing

The molds listed in the samples were equal to or lower than the outside comparison sample. Indicating no significant concern in this area at the time of inspection.

#### **Observations**

1.2.1 Sample 2

#### **ASPERGILLUS / PENICILLIUM**

#### Aspergillus / Penicillium

Aspergillus is common on tape lift samples and air samples, but its spores are indistinguishable from Penicillium spores in most cases. Health effects vary by species, but many are listed as allergens. Some species can produce toxins that may have significant health effects in humans. Aspergillus is listed as one of the most infectious type of mold, but infections are not common in normal healthy immune systems. However, if you are immune suppressed or compromised this should be discussed with your physician.

Presence of significant numbers of Aspergillus/Penicillium and unidentified spores (including basidiospores) in the indoor environment is indicative of poor air quality.

Recommendation

Contact a qualified professional.

1.2.2 Sample 2

#### **CLADOSPORIUM**

#### Cladosporium

Cladosporium is rarely pathogenic, it is a common agent of hay fever and asthma and other allergy related symptoms. Cladosporium can be found in most air samples most of the time. It is very common. Cladosporium is one of the types of mold found growing on HVAC vent covers and grills. It can grow on leaves, textiles, wood, paper, and decaying vegetation.

Recommendation

Contact a qualified professional.

1.2.3 Sample 2

#### **MYXOMYCETE / PERICONIA / SMUT**

#### Myxomycete / Periconia / Smut

Generally classified as a plant pathogen. Some allergenic properties have been reported but generally pose no health concerns to humans.

Recommendation

Contact a qualified professional.

1.2.4 Sample 2

#### **ALTERNARIA**

#### Alternaria

Alternaria species is a common allergen and rarely an opportunistic pathogen. Possible health effect is hay fever, asthma, and other allergy related symptoms, including sinusitis.

Recommendation

Contact a qualified professional.

1.3.1 Sample 3

#### **ASPERGILLUS / PENICILLIUM**

#### Aspergillus / Penicillium

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Presence of significant numbers of Aspergillus/Penicillium and unidentified spores (including basidiospores) in the indoor environment is indicative of poor air quality.

Recommendation

Contact a qualified professional.

1.3.2 Sample 3

#### **CLADOSPORIUM**

#### Cladosporium

Cladosporium is rarely pathogenic, it is a common agent of hay fever and asthma and other allergy related symptoms. Cladosporium can be found in most air samples most of the time. It is very common. Cladosporium is one of the types of mold found growing on HVAC vent covers and grills. It can grow on leaves, textiles, wood, paper, and decaying vegetation.

Recommendation

Contact a qualified professional.

1.3.3 Sample 3

#### HYPHAL FRAGMENTS

#### **Hyphal Fragments**

Hyphal fragments are not a type of mold. Hyphal fragments are components of fungal growth (similar to the roots and branches of a tree); it is common to find small hyphal fragments in outdoor air and possibly in indoor dust. But their presence in indoor air samples, if in quantity or in large segments, suggests an active fungal colony in the building. Mold type cannot be identified by the hyphae alone.

Recommendation

Contact a qualified professional.

1.3.4 Sample 3

#### **SCOPULARIOPSIS**

#### **Scopulariopsis**

Scopulariopsis is listed as a contaminant / opportunistic pathogenic Possible health effect are toenail infections and some soft tissue infections in compromised individuals but this is rarely the case. The mold is viewed white at first, then becomes powdery and brown with a lighter brown peripher.

Recommendation

Contact a qualified professional.

1.3.5 Sample 3

#### **ASCOSPORES**

#### **Ascospores**

Ascospores are prominent in nature commonly found in the outdoor environment. Some fungi that belong to the Ascomycete family include the sexual forms of Penicillium/Aspergillus, Chaetominum, etc that may be frequently found growing on damp substrates. Very little is known about their health effects on humans.

Recommendation

Contact a qualified professional.

1.4.1 Sample 4

#### **HYPHAL FRAGMENTS**

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Recommendation

Contact a qualified professional.

# 2: CONDUCIVE CONDITIONS

## **Information**

Interior: General Pictures
See Commercial Inspection Report

**Exterior: Exterior Photos**See Commercial Inspection Report

## 3: RECOMMENDATIONS

#### **Information**

**Summary** 

**Lab Results** 

Inspection Summary

See Attachment

#### Recommendation

The visible growth tested during the inspection was confirmed as mold by the lab testing. It is recommended that the areas of visible growth be cleaned/remediated as necessary and all water sources be remedied to prevent any future growth occurrence.

#### **Elevated Levels of Mold Detected**

There were elevated levels of mold detected in the samples taken at the time of inspection. Further investigation recommended.

#### **Correction of Conducive Conditions**

It is recommended that all conducive areas for potential mold growth be remedied.

#### **Mold Protocol Recommendation**

For mold to be properly removed by a "Mold Remediator", a mold "protocol" must be written by a Mold Consultant. The "protocol" is a lined out way for properly removing mold from the affected areas of the home.

Please contact GreenWorks for pricing and setup for your mold protocol.

## STANDARDS OF PRACTICE