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MOLD ASSESSMENT REPORT

PREPARED FOR THE FOLLOWING PROPERTY:



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PERFORMED ON:

April 19, 2024

PERFORMED AND PREPARED BY:

A handwritten signature in black ink, appearing to read "Chris Ritko".

Chris Ritko
Licensed Florida Mold Assessor
MRSA2640

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I. INTRODUCTION

DK Environmental & Construction Services, Inc. (DKE) conducted a preliminary non-intrusive mold assessment of the accessible living spaces of the Interior inspected area(s) of the property, and has prepared this report summarizing our assessment findings and laboratory results. Air and surface sampling were performed in Interior inspected area(s) of the property, along with one (1) Exterior baseline/control air sample.

The purpose of this assessment was to identify the presence or absence of mold growth and conditions conducive to mold growth, and to determine the Interior air quality as it relates to mold. Information obtained through visual inspection and microscopic analysis of air sampling was used to determine the property's interior conditions. DKE follows the Indoor Environmental Standards Organization (IESO) sampling protocols.

The following is a summary of this inspection's findings:

- **Visible microbial growth was observed in Interior inspected area(s) of the property.**
- **Interior air sample(s) was/were found to contain elevated spore counts.**
- **Surface sample(s) taken in Interior inspected area(s) of the property was/were found to contain elevated spore counts.**
- **Mold remediation is recommended and outlined in the "Protocols" section of this report.**

An explanation of the above-listed summary can be found in this report. If you have any questions after reviewing this report, please call us at 407-614-4572.

II. SCOPE OF WORK & METHODS

Non-Intrusive Visual Inspection:

A visual inspection with the use of a FLIR™ E6 infrared thermal imaging camera and a FLIR™ MR77 moisture meter was performed in the Interior inspected area(s) of the property to identify suspect conditions and potential moisture source locations. Digital and infrared photographs were taken as necessary to support inspection findings.

Air Sampling and Analysis:

Air samples were collected in Interior inspected area(s) of the property to determine indoor air quality relating to microbial contamination using Buck BioAire™ Model B520 Sampling Pumps with Allergenco D™ Spore Traps. The samples were collected for a five-minute period with a calibrated flow rate of 15 liters per minute for a total sample of 75 liters in accordance with the manufacturer's recommendations.

The Allergenco D™ Spore Trap is a sampling device designed for the rapid collection and quantitative analysis of a wide range of airborne aerosols. It collects non-viable particulate such as mold spores, pollen, insect parts, skin cell fragments, fibers (asbestos, fiberglass, cellulose, etc.) and inorganic particles.

The air sampling methodology utilized for this project was designed to quantify the respective airborne presence of fungal spores in the Interior living spaces in relationship to what is naturally occurring outdoors, commonly referred to as normal fungal ecology.

Air sampling was performed in Interior inspected area(s) of the property. One (1) Exterior baseline/control air sample was collected for comparison purposes. After sample collection the cassettes were re-sealed delivered to a third-party independent laboratory 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.

III. SUMMARY OF PHYSICAL ANALYSIS

Inspection activities performed by DKE indicate the following conditions at the property, as existing at the time and date of sample collection and observations:

Exterior/Interior Temperature and Relative Humidity:

Exterior Weather Conditions	Exterior Temperature (°F)	Exterior Relative Humidity (%)
Sunny, mild wind	70.8	63.3

ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers) recommends an indoor temperature of 68.5°F - 76.5°F, and an indoor relative humidity level of 30% - 60%. The following table lists the relevant conditions observed during the inspection:

Interior Room Name	Temperature (°F)	Relative Humidity (%)
Interior Inspected Area(s)	77.0	69.8
Levels that fall outside of recommended parameters are identified in red.		

Microbial Airborne Activity:

One (1) Exterior baseline/control air sample was collected in the same manner as Interior air sample(s). As of this writing, no government agencies have determined the amount of mold spores a person can be exposed to before health problems occur. Interior air quality should be “equal to or less than” the Exterior air quality in order to be safe for human occupancy. Please see the “Summary of Laboratory Analysis” and “Laboratory Analysis Report” for air sampling results.

PROPERTY INTERIOR

Cause of Loss:

Client-Defined Suspected Cause of Loss	Has Been Repaired?
Plumbing system leaks	No

Please see the "Site Photographs" section in this report for the specific locations of impacted surfaces and substrates, if any, documented below:

Microbial Surface Activity:

•Suspected microbial growth was observed on building components in Interior inspected area(s) of the property. Surface sampling was taken of suspected growth for identification purposes.

Visual Inspection:

•Visible water damage was observed on building components in Interior inspected area(s) of the property.

Elevated Moisture Content:

Interior Room Name	Drying Standard	Location	Moisture Content (%)
Kitchen	>15%	South lower wood exposed framing	42.5
Southwest Bedroom	>15%	Northwest lower drywall wall	94.0
Southwest Bedroom	>15%	Northwest vinyl flooring	88.7
West Bathroom	>15%	West upper drywall wall	80.7
East Bathroom	>15%	West lower drywall wall	60.5

Levels that fall outside of recommended parameters are identified in red.

Note: It is generally accepted that wood rots when it contains 15% or greater moisture content (MC). Therefore, a reading at or above 15% MC in any organic building material indicates a hazardous condition which should be investigated further. Generally, moisture content below 15% inhibits growth of both destructive fungi and surface fungi.

IV. SUMMARY OF LABORATORY ANALYSIS

Airborne Mold Spores by Spore Trap Technique and/or Surface Sampling by Tape/Swab			
Sample Number	Location	Elevated Fungal Species	Spores/M3*
Allergenco D Spore Trap 5576221	Exterior North Wall Baseline/Control Sample Collected at Breathing Level	Aspergillus/Penicillium	870
		Total Spore Count/M3	10490
Allergenco D Spore Trap 5576210	Interior Kitchen Preliminary Sample Collected at Breathing Level	Aspergillus/Penicillium	2900
		Total Spore Count/M3	3570
Allergenco D Spore Trap 5576202	Interior Southwest Bedroom Preliminary Sample Collected at Breathing Level		
		Total Spore Count/M3	1350
Bio-Tape 1560-1	Interior Kitchen Preliminary Sample Collected from South lower wood wall cavity	Aspergillus	High
		Total Spore Count/M3	>1000
Bio-Tape 1560-2	Interior Southwest Bedroom Preliminary Sample Collected from Northwest wood baseboard	Aspergillus/Penicillium	Low
		Cladosporium	High
		Scopulariopsis/Microascus	Medium
		Scolecobasidium	Low
		Total Spore Count/M3	>1000
Bio-Tape 1560-3	Interior East Bathroom Preliminary Sample Collected from Southwest wood baseboard	Aspergillus/Penicillium	Low
		Total Spore Count/M3	11 - 100
*Spores/M3 results listed in red represent levels significantly higher than outside air (Spore Trap), or a “Heavy” or “Very Heavy” spore estimate (Tape or Swab).			

Please refer to the "Laboratory Analysis Report" for further interpretation of these results.

•Interior air sample(s) was/were found to contain elevated spore counts.

•Surface sample(s) taken in Interior inspected area(s) of the property was/were found to contain elevated spore counts.

According to Florida Title XXXII, Part XVI, ss. 468.84-468.8424, mold assessment and remediation need not be performed by Florida-licensed assessors and remediators if the mold-affected area is less than or equal to 10 square feet. However, due to the possibility of identifying additional mold-affected square footage during the remediation process, as well as the potential for cross-contamination due to improper remediation techniques, inadequate containment, etc., DKE recommends the use of Florida-licensed mold assessors and remediators for the assessment, remediation, and post-remediation verification for all mold projects, regardless of visible square footage.

As of this writing, no government agencies have determined the amount of mold spores a person can be exposed to before health problems occur. The indoor air quality should be “equal to or less than” the outside air quality in order to be safe for human occupancy.

Air sample results indicating a non-elevated spore concentration should not be construed as a guarantee or warranty against current or future microbial growth. Laboratory results are reflective of air quality conditions in Interior inspected area(s) of the property as they specifically relate to airborne fungal spores at the time of sample collection. Air sample collection provides a “snapshot” in time as to what is occurring in the air at the time of sample collection. Any condition that allows for the loss of moisture control, including but not limited to: water intrusion, water vapor condensation, or prolonged elevated indoor humidity (>60%) may result in microbial growth.

V. PROTOCOLS

- Please refer to the “General Recommendations” section of this report when implementing these protocols.
- The contractor performing this work should develop a detailed remediation plan to implement this protocol.
- The following protocol guidelines are guidelines only. They can be modified, with approval of the environmental consultant, if it is believed the modifications will achieve the same or greater levels of worker and environmental protection and expedite remediation. This Protocol is not intended to be a detailed step-by-step outline of how to perform mold remediation. Rather, its purpose is to provide a general outline of how such projects should be handled. Work zones are often expanded based on the extent of “hidden damage” that is exposed when opening wall cavities, removing cabinetry, etc.
- The remediation contractor is solely responsible for protection of health, safety, and the environment at the job site. The remediation contractor is solely responsible for all required training and licensure related to any work covered by this Mold Remediation Protocol. The remediation contractor shall re-clean at his expense if the post remediation samples fail or if the final visual inspection fails. This process of re-cleaning shall continue at the contractor's expense until a successful post remediation evaluation is achieved.
- This section shall not be applicable if there are special or unusual contamination conditions discovered during the remediation activities that would substantially change or affect the post-remediation evaluation.

1. SUMMARY OF AREAS REQUIRING REMEDIATION/REPAIR

- Interior Kitchen
- Interior Southwest Bedroom
- Interior West Bathroom
- Interior East Bathroom
- Interior Laundry Room (If Applicable)
- Interior Living Areas (General)
- HVAC System(s)

2. REMEDIATION PROCESS

- Seal off all areas of the property where remediation will occur with 6-mil plastic by use of a negative air pressure containment system. This system should isolate the work area and prevent the migration of contaminants to the unaffected areas of the property. The Remediation Plan should detail how entry and exit from containment will be accomplished without spreading contaminant.
 - Isolate the HVAC system from the work area to minimize the risk of cross contamination. Use portable dehumidification as necessary during the remediation process.
 - Seal and protect contents with 6-mil plastic to prevent cross contamination in the property.
 - Install an adequate number of HEPA air scrubbers in the affected area to remove airborne spores/particles and to further isolate the environment.
 - As dust and debris is generated, it should be immediately cleaned up using HEPA vacuums or other appropriate methods.
-

INTERIOR KITCHEN

- Remove, clean, cover, and store countertop, sink, and fixtures for post-remediation reinstallation, if applicable.
 - Remove all affected lower wood cabinetry components.
 - Remove all affected drywall. Drywall should be removed to a minimum of two feet (2') from floor level. This height may increase depending on the scope of affected areas discovered during the remediation process.
 - Properly bag and dispose of all contaminated waste materials.
 - Clean, treat, and encapsulate all newly-exposed framing components and wood wall cavity with two coats of an EPA-registered mold resistant coating to prevent mold growth, if applicable. Remove all affected framing components and wood wall cavity that cannot be adequately cleaned/treated.
-

INTERIOR SOUTHWEST BEDROOM

- Remove all affected wood baseboard.
- Remove all affected drywall. Drywall should be removed to a minimum of two feet (2') from floor level. This height may increase depending on the scope of affected areas discovered during the remediation process.

- Remove all affected vinyl flooring, if applicable.
 - Properly bag and dispose of all contaminated waste materials.
 - Treat and encapsulate all newly-exposed framing components with two coats of an EPA-registered mold resistant coating to prevent mold growth, if applicable.
 - Treat and encapsulate any newly-exposed sub-flooring with two coats of an EPA-registered mold resistant coating to prevent mold growth, if applicable.
-

INTERIOR WEST BATHROOM

- Clean/treat all affected drywall ceiling and wall. Remove all affected drywall that cannot be adequately cleaned/treated.
 - Properly bag and dispose of all contaminated waste materials.
 - Treat and encapsulate any newly-exposed framing components with two coats of an EPA-registered mold resistant coating to prevent mold growth, if applicable.
 - Inspection/repair of the plumbing systems by a licensed and insured plumbing contractor is recommended.
-

INTERIOR EAST BATHROOM

- Remove all affected wood baseboard.
 - Remove all affected drywall. Drywall should be removed to a minimum of two feet (2') from floor level. This height may increase depending on the scope of affected areas discovered during the remediation process.
 - Properly bag and dispose of all contaminated waste materials.
 - Treat and encapsulate all newly-exposed framing components with two coats of an EPA-registered mold resistant coating to prevent mold growth, if applicable.
 - Inspection/repair of the plumbing systems by a licensed and insured plumbing contractor is recommended.
-

INTERIOR LAUNDRY ROOM (IF APPLICABLE)

- Remove all affected wood baseboard.

- Remove all affected drywall. Drywall should be removed to a minimum of two feet (2') from floor level. This height may increase depending on the scope of affected areas discovered during the remediation process.
 - Remove all affected vinyl flooring, if applicable.
 - Properly bag and dispose of all contaminated waste materials.
 - Treat and encapsulate any newly-exposed framing components with two coats of an EPA-registered mold resistant coating to prevent mold growth, if applicable.
 - Treat and encapsulate any newly-exposed sub-flooring with two coats of an EPA-registered mold resistant coating to prevent mold growth, if applicable.
-

INTERIOR LIVING AREAS (GENERAL)

- Clean, scrub, and disinfect all affected areas and contents (walls, ceilings, flooring, closets, baseboard, trim, shelving, picture frames, household goods, clothing, furniture, cabinetry, electronics, appliances, ceiling fans/lights, door components, window components, etc.) within the applicable Interior Living Areas, as necessary, with an EPA-registered antimicrobial/antifungal disinfectant. All components/contents that cannot be adequately treated should be removed/disposed of.
-

HVAC SYSTEM(S)

- Inspection and cleaning of the HVAC system(s), including air handler(s), ductwork, vents, filters, exhaust systems, etc., by a licensed and insured HVAC contractor is recommended.
-

- Post-remediation clearance evaluation should be performed by a Florida-licensed Mold Assessor.
 - Following post-remediation clearance evaluation, disassemble and bag containment materials. Dispose of containment materials according to proper disposal protocol.
-

End of Section

VI. GENERAL RECOMMENDATIONS

This report only provides an evaluation of the interior substrate conditions and indoor air quality as they relate to mold and moisture. The following recommendations are meant to provide general remediation procedures based on nationally-accepted standards. These recommendations should not be construed as the only effective methodology for remediation and no warranty is expressed or implied with these recommendations. DKE is independent of any remediation process, and we defer to the qualified remediator for specific repair protocols since the actual remediation process may expose additional areas requiring treatment.

- The goal of the remediation process is to correct all existing moisture conditions that promote mold growth, and to physically remove all mold contaminated/non-restorable materials in accordance with the IICRC S520 mold remediation standard.
- Prior to any remediation, always correct all conditions that have contributed to excess moisture or humidity at the property. Extract any excess water from the property, and remove excess humidity with a professional-grade dehumidifier. Relative humidity must be maintained between 30% - 60% in the work area.
- We recommend Florida-licensed mold remediators with ACAC and/or IICRC certified personnel who are experienced with water damage and microbial remediation solutions perform all remedial activities including intrusive investigation. The remediation company should show proof of licensing/certification, carry mold-specific Errors & Omissions Insurance, General Liability Insurance and Worker's Compensation.
- All remediation workers should be properly licensed/certified. Adequate personal protective equipment (PPE) must be worn when engaging in mold remediation activities. This PPE should include, but is not limited to, N95 respirators, disposable coveralls, non-vented eye goggles, and rubber gloves that extend to mid-forearm.
- Any and all water damaged/mold impacted areas should be in containment. These areas should be sealed off using 6-mil plastic under a negative pressure with the use of negative air machines (NAMs) equipped with high-efficiency particulate air (HEPA) filtration during remedial efforts to prevent potential cross-contamination between the affected and unaffected areas.
- The HVAC system should be isolated from the work area to minimize the risk of cross contamination. Portable dehumidification may be necessary during the remediation process to maintain conditions that will not support additional mold growth.
- Any and all roofing system inspection and work should be performed by a licensed and insured roofing contractor.
- Any and all HVAC system inspection and work should be performed by a licensed and insured HVAC contractor.
- All exterior sprinkler system and downspout discharge should be directed away from property walls/foundations.

- Intrusive investigation should be performed by qualified persons in areas with water damage and/or elevated moisture content to identify the full extent of areas requiring remedial treatment.
- Areas of water damaged and/or stained carpeting that cannot be adequately dried and cleaned should be discarded. Areas of carpet pads that have been wet should always be discarded.
- Areas of wet/water-damaged insulation should be removed.
- Porous building materials (sheetrock, baseboards, tack strips, etc.) that have been water damaged to the point that drying and cleaning will not restore them to their pre-water exposure condition or have sustained loss of integrity should be removed and discarded, whether or not there is visible evidence of fungal growth.
- All non-porous materials and wood surfaces that show visible signs of mold must be cleaned. Sand or use a wire brush on all mold-contaminated surfaces and then wipe the area with disposable wipes. Scrub all mold-contaminated surfaces using a damp cloth and detergent solution until all mold has been removed. Rinse cleaned surfaces with clean water.
- Non-removable, contaminated wood structural supports must be sanded down at least 1/16th of an inch to remove mold prior to fungicidal treatment. Contaminated metal studs must be cleaned with a detergent solution and treated with fungicide. If it is not possible to clean and disinfect the structural item, then it must be removed, disposed of and replaced. Structural supporting members may need the consultation of a structural engineer prior to removal and replacement. Sand or wipe away mold from the top, bottom, front, back, and sides of items. This approach to covering all surfaces must also be utilized when applying fungicide.
- All visible fungi must be physically removed. Areas that have developed fungal growth should be HEPA vacuumed and cleaned thoroughly with an EPA registered product. However, if the mold growth is imbedded within the material and cannot be cleaned, removal of the contaminated materials plus an additional three (3) feet of material beyond the affected area(s) should also be removed and disposed of.
- Contaminated building materials should be removed carefully in as large a section as possible for bagging or wrapping with 6-mil disposal bags or securely wrapped in 6-mil poly sheeting. Bagged materials should be sealed inside a second bag before moving them outside the containment area (double bagging), if they are going to pass through Condition 1 areas.
- All surfaces within the containment should be HEPA vacuumed, damp-wiped with an appropriate EPA registered product, and HEPA vacuumed again.
- Post-remediation verification should be performed by a licensed Mold Assessor prior to any build-back of finish materials.

VII. IN CLOSING

In closing, DKE strongly recommends that any and all biological remediation be conducted following guidelines established by the Institute of Inspection Cleaning and Restoration (IICRC). Their document entitled IICRC S520 Standard and Reference Guide for Professional Mold Remediation outlines work practices and equipment to be utilized during the remediation procedure. Also follow recommendations outlined in the US EPA: Mold Remediation in Schools and Commercial Buildings, Publication EPA 402-K-01-001.

It is important to note that our findings relating to physical conditions observed during this assessment were not intended nor do they attempt to identify every possible source of contamination, mold or otherwise, in the structure. The assessor is neither insurer nor guarantor against water problems, mold problems or other defects in the subject property or any of its components.

Any measured results, analysis data and/or physical observations made are valid only for the period in which this inspection was conducted. Any additional degradation of building materials or contamination from new or reactivated sources or areas inaccessible at the time of the inspection is not the responsibility of DKE.

Historical events or ambient air conditions that may have existed prior to this inspection cannot be correlated in any way with the enclosed data. No warranty, real or implied, is made as to what was or is the exact cause or source that may have adversely affected the indoor air quality.

If you have any questions after reviewing this report, please call us at 407-614-4572. We are happy to help as your good health and comfort is our goal.

Thank You,



Debra Koontz, President
DK Environmental & Construction Services, Inc.

VIII. SITE PHOTOGRAPHS



Calibration prior to testing



Exterior North wall baseline



Interior Kitchen sample



Interior Kitchen
Lower wood sink cabinetry
Visible water damage
Visible microbial growth



Interior Kitchen
South lower wood framing, wall cavity
Visible water damage
Visible microbial growth



Interior Kitchen
South lower wood framing
Elevated moisture content (42.2%)



Interior Southwest Bedroom
Northwest lower drywall, wood baseboard
Visible water damage, standing water
Visible microbial growth



Interior Southwest Bedroom
Northwest lower drywall
Elevated moisture content (94.0%)



Interior Southwest Bedroom
Northwest vinyl flooring
Elevated moisture content (88.7%)



Interior West Bathroom
West upper drywall wall, ceiling
Visible microbial growth



Interior West Bathroom
West upper drywall wall
Elevated moisture content (80.7%)



Interior East Bathroom
West lower drywall, wood baseboard
Visible water damage
Visible microbial growth



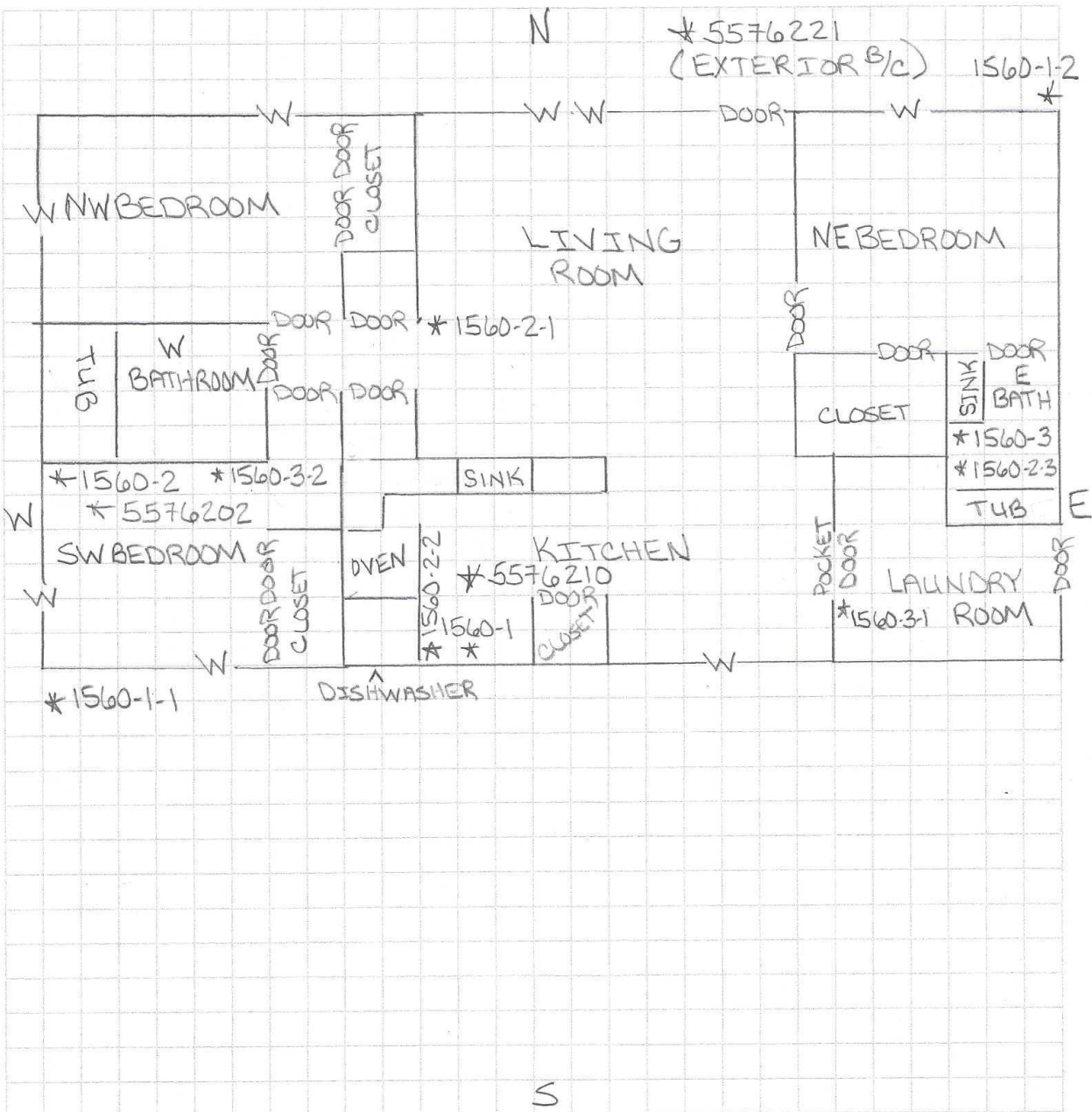
Interior East Bathroom
West lower drywall
Elevated moisture content (60.5%)

IX. SITE PLAN



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SITE PLAN



Case # Cook, Sabrina & Kerry

Address 1560 NW 14th Street
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mold and Asbestos

X. DEFINITIONS

Airborne: supported especially by aerodynamic forces or propelled through the air by force.

Air filtration device (AFD): depending on the mode of use, an AFD that filters (usually HEPA) and recirculates air is referred to as an air scrubber. One that filters air and creates negative pressure is referred to as a negative air machine (NAM).

Allergens: substances that act as antigens producing an allergy.

Assessment: a process performed by an indoor environmental professional (IEP) that includes the evaluation of data obtained from a building history and inspection to formulate an initial hypothesis about the origin, identity, location and extent of amplification of mold contamination. If necessary, a sampling plan is developed, and samples are collected and sent to a qualified laboratory for analysis. The subsequent data is interpreted by the IEP. Then, the IEP, or other qualified individual, may develop a remediation plan.

Condition 1 (*normal fungal ecology*): an indoor environment that may have settled spores, fungal fragments or traces of actual growth whose identity, location and quantity are reflective of a normal fungal ecology for a similar indoor environment.

Condition 2 (*settled spores*): an indoor environment which is primarily contaminated with settled spores that were dispersed directly or indirectly from a Condition 3 area, and which may have traces of actual growth.

Condition 3 (*actual growth*): an indoor environment contaminated with the presence of actual mold growth and associated spores. Actual growth includes growth that is active or dormant, visible or hidden.

Containment: a precaution used to minimize cross-contamination from affected to unaffected areas by traffic or material handling. Containment normally consists of 6-mil polyethylene sheeting, often in combination with negative air pressure, to prevent cross-contamination.

Contaminated (contamination): the presence of indoor mold growth or mold spores, whose identity, location and quantity are not reflective of a *normal fungal ecology* for similar indoor environments, and which may produce adverse health effects, cause damage to materials or adversely affect the operation or function of building systems.

Cross-contamination: the spread of a source or sources of contamination from an affected area to an unaffected area.

Dew Point Temperature: the temperature at which water vapor begins, or would begin, to condense.

Fungus (plural “fungi”): one of the kingdoms into which living things are categorized. Fungi have distinct nuclei and include a variety of types, such as molds, yeasts, and mushrooms.

Genus: a taxonomic category ranking below a family and above a species.

HEPA: an acronym for “high efficiency particulate air/arrestance”, which describes an air filter that removes 99.97% of particles at 0.3 microns in diameter.

HVAC: an acronym for Heating, Ventilation, and Air Conditioning.

Indoor Environmental Professional (IEP): an individual who is qualified by knowledge, skill, education, training, certification and experience to perform an assessment of the fungal ecology of structures, systems and contents at a job site, create a sampling strategy, sample the indoor environment and submit to an appropriate laboratory, interpret laboratory data and determine Condition 1, 2, or 3 for the purpose of establishing a scope of work and verifying the return of the job site to Condition 1.

Inspection: the gathering of information regarding the mold and moisture status of the building, system, contents or area in question.

Materially-interested parties: an individual or entity substantially and directly affected by a mold remediation project.

MERV: MERV is an acronym for Minimum Efficiency Reporting Value. The MERV rating is a measure of the minimum efficiency of an air filter when dealing with particulate sizes between 0.3 to 10 microns.

Micron: one-millionth of a meter - also known as a micrometer.

Mold: a group of microscopic organisms that are part of the Fungi Kingdom. They generally reproduce by means of spores and are ubiquitous. Often, the terms mold and fungi are used interchangeably.

MVOC's: Microbial Volatile Organic Compounds - Some compounds produced by molds are volatile and are released directly into the air.

Mycelium: the vegetative part of a fungus consisting of a mass of branching threadlike structures.

Mycotoxin: Toxic compounds produced by certain fungi. Some mycotoxins cling to the surface of mold spores; others may be found within spores. More than 200 mycotoxins have been identified from common molds, and many more remain to be identified.

Normal fungal ecology (Condition 1): an indoor environment that may have settled spores, fungal fragments or traces of actual growth whose identity, location and quantity are reflective of a normal fungal ecology for a similar indoor environment.

Pathogenic: causing or capable of causing disease.

Personal protective equipment (PPE): safety items designed to prevent exposure to potential hazards. Examples include: respirators, gloves, goggles, protective clothing and tools.

Plenum: an air-filled space in a structure that receives air from a blower for distribution (as in a ventilation system).

Post-remediation verification: an inspection and assessment performed by an IEP after a remediation project, which can include visual inspection, odor detection, analytical testing or environmental sampling methodologies to verify that structure, system or contents have been returned to Condition 1.

Preliminary determination: a conclusion drawn from the collection, analysis and summary of information obtained during an initial inspection and evaluation to identify areas of moisture and actual or potential mold growth.

Quality control: activities performed by a remediator that are designed to assure the effectiveness of the advised or suggested.

Relative Humidity: The ratio of the amount of water in the air at a given temperature to the maximum amount it could hold at that temperature; expressed as a percentage.

Remediate: the process of restoring, repairing; regarding mold damage in buildings. The process includes removing damaged materials, replacing them with new materials and correcting the problem(s) that caused the damage.

Spores: the reproductive elements of lower organisms, such as fungi.

Threshold Exposure Limits: Threshold exposure limits for fungal air contaminants for individual occupants have not been established, and because of other factors that affect the exposure levels independent of area (proximity, duration), it is impossible to say with certainty how small an area of visible mold growth is small enough to ignore. It is recommended, therefore, that all visible growth be remediated regardless of area.

Toxicity: the degree to which something is poisonous.

Toxinogenic: toxin-producing fungi or bacteria.

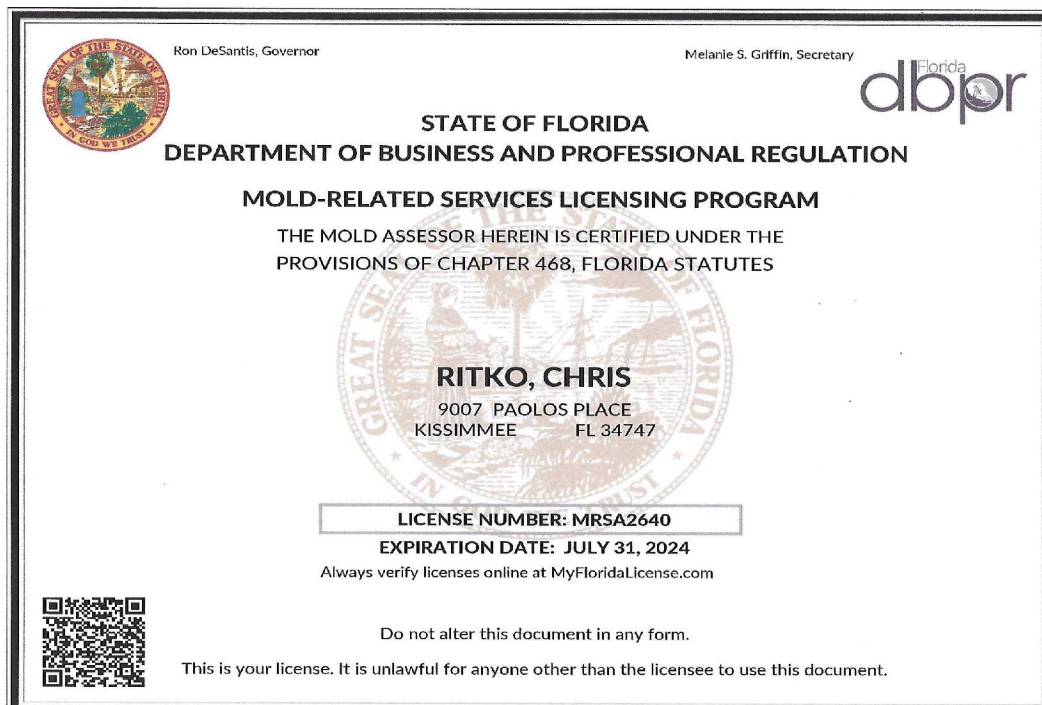
Viable: capable of germination and growth.

Volatile Organic Compounds (VOC's): chemicals which vaporize at room temperature.

XI. REFERENCES

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XII. LICENSING





EXPANDED FUNGAL REPORT TM

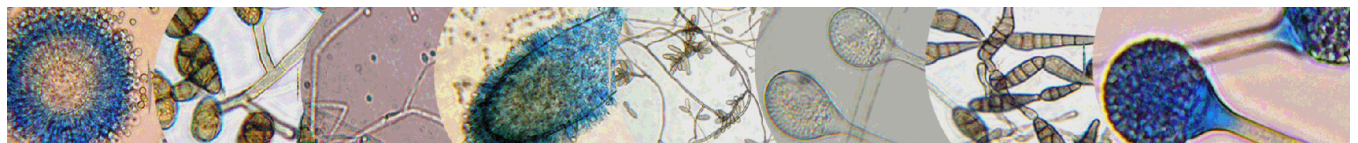
Prepared Exclusively For

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Winter Garden, FL 34787
Phone: 814-243-1927

Report Date: 4/22/2024
Project: 1560 NW 14th Street Ocala, FL 34475
EMSL Order: 342408195

AIHA LAP, LLC.

AIHA LAP, LLC EMLAP #163563



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EMSL Order: 342408195
Customer ID: DKEN75
Collected: 4/19/2024
Received: 4/19/2024
Analyzed: 4/20/2024

Proj: 1560 NW 14th Street Ocala, FL 34475

1. Description of Analysis

Analytical Laboratory

EMSL Analytical, Inc. (EMSL) is a nationwide, full service, analytical testing laboratory network providing Asbestos, Mold, Indoor Air Quality, Microbiological, Environmental, Chemical, Forensic, Materials, Industrial Hygiene and Mechanical Testing services since 1981. Ranked as the premier independently owned environmental testing laboratory in the nation, EMSL puts analytical quality as its top priority. This quality is recognized by many well-respected federal, state and private accrediting agencies, and assured by our high quality personnel, including many Ph.D. microbiologists and mycologists.

EMSL is an independent laboratory that performed the analysis of these samples. EMSL did not conduct the sampling or site investigation for this report. The samples referenced herein were analyzed under strict quality control procedures using state-of-the-art microbiological methods. The analytical methods used and the data presented are scientifically and legally defensible.

The laboratory data is provided in compliance with ISO-IEC 17025 guidelines for the particular test(s) requested, including any associated limitations for the methods employed. These data are intended for use by professionals having knowledge of the testing methods necessary to interpret them accurately.



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Air Samples - Spore traps:

Spore traps are commercially available sampling devices that capture airborne particles on an adhesive slide. Air is pulled through the device using a vacuum pump. Spores, as well as other airborne particles, are impacted on the collection adhesive. Using spore trap collection methods has inherent limitations. These collection methods are biased towards larger spore sizes.

The analysis for total spore counts is a direct microscopic examination and does not include culturing or growing the fungi. Therefore, the results include both viable and non-viable spores. Some fungal groups produce similar spore types that cannot be distinguished by direct microscopic examination alone (i.e., *Aspergillus/Penicillium*, and others). Other spore types may lack distinguishing features that aid in their identification. These types are grouped into larger categories such as Ascospores or Basidiospores.

Fungal spores are identified and grouped by morphological characteristics including color, shape, septation, ornamentation, and fruiting structures (if present) which are compared to published mycological identification keys and texts. EMSL reports provide spore counts per cubic meter of air to three significant figures. Please note that each spore category is reported to three significant figures. Due to rounding and the application of three significant figures the sum of the individual spore numbers may not equal the total spore count on the report. EMSL does not maintain responsibility for final volume concentrations (counts/m³) since this volume is provided by the field collector and can not be verified by EMSL.

EMSL analyzes spore traps using phase contrast microscopy. There is a wide choice of collection devices (Air-O-Cell, Micro-5, Burkhard, etc.) on the market. Differences in analytical method may exist between spore trap devices.

Spore trap results are reported in spores per cubic meter of air. Due to the other airborne particles collected with the spores, EMSL reports a background particle density. Background density is an indication of overall particulate matter present on the sample (i.e. dust in the air). High background concentrations may obscure spores such as the *Penicillium/Aspergillus* group. The rating system is from 1-5 with 1 = 1 - 25% of the background obscured by material, 2 = 26 - 50%, 3 = 51 - 75%, 4 = 76% - 99%, 5 = 100% or overloaded. A background rating of 4 or higher should be regarded as a minimum count since the actual concentrations may be higher than those reported. EMSL will not be held responsible for overloading of samples. Sample volumes are left to the discretion of the company or persons conducting the fieldwork.

Skin fragment density is the percentage of skin cells making up the total background material, 1 = 1 - 25%, 2 = 26 - 50%, 3 = 51 - 75%, 4 = 76-100%. Skin fragment density is considered an indication of the general cleanliness in the area sampled. It has been estimated that up to 90% of household dust consists of dead skin cells.

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2. Analytical Results

See attached data reports and charts.



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

Lab Sample Number:	342408195-0001			342408195-0002			342408195-0003		
Client Sample ID:	5576221			5576210			5576262		
Volume (L):	75			75			75		
Sample Location:	Exterior N Wall B/C			Interior Kitchen			Interior SW Bedroom		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	1	40	0.4	-	-	-	-	-	-
Ascospores	18	790	7.5	2	90	2.5	1	40	3
Aspergillus/Penicillium++	20	870	8.3	66	2900	81.2	20	870	64.4
Basidiospores	183	7990	76.2	4	200	5.6	6	300	22.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	12	520	5	6	300	8.4	3	100	7.4
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	2	90	0.9	-	-	-	-	-	-
Myxomycetes++	3	100	1	1	40	1.1	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	2	90	0.9	1	40	1.1	1	40	3
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	241	10490	100	80	3570	100	31	1350	100
Hyphal Fragment	2	90	-	1	40	-	-	-	-
Insect Fragment	2	90	-	-	-	-	1*	10*	-
Pollen	5	200	-	2	90	-	1	40	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	2	-	-	2	-
Background (1-5)	-	2	-	-	2	-	-	2	-

++ 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.

Yessica Martinez Seeman, Florida Microbiology
Regional Manager

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Initial report from: 04/22/2024 08:41:41

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Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	342408195-0004 1560-1 Interior Kitchen S Lower Wood Wall Cavity	342408195-0005 1560-2 Interior SW Bedroom NW Wood Baseboard	342408195-0006 1560-3 Interior E Bathroom Wood Baseboard		
Spore Types	Category	Category	Category		
Alternaria (Ulocladium)	-	-	-		
Ascospores	-	-	-		
Aspergillus/Penicillium++	-	Low	Low		
Basidiospores	-	-	-		
Bipolaris++	Rare	-	-		
Chaetomium++	-	Rare	-		
Cladosporium	-	*High*	-		
Curvularia	-	-	-		
Epicoccum	-	-	-		
Fusarium++	-	-	-		
Ganoderma	-	-	-		
Myxomycetes++	Rare	-	-		
Pithomyces++	-	-	-		
Rust	-	-	-		
Scopulariopsis/Microascus	-	Medium	Rare		
Stachybotrys/Memnoniella	-	-	-		
Unidentifiable Spores	-	-	-		
Zygomycetes	-	-	-		
Aspergillus	*High*	-	-		
Scolecobasidium++	-	Low	-		
Hyphal Fragment	-	-	-		
Insect Fragment	Low	Medium	Rare		
Pollen	-	Low	Rare		
Fibrous Particulate	-	-	-		

Category: Count/per area analyzed

Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

High background particulate: A high level of background particulate can obscure fungal matter and lead to underestimation or failure to detect

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

* = Sample contains fruiting structures and/or hyphae associated with the spores.

- = Not detected.

Yessica Martinez Seeman, Florida
Microbiology Regional Manager

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

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA LAP, LLC-EMLAP Accredited #163563

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3. Understanding the Results

EMSL Analytical, Inc. is an independent laboratory, providing unbiased and scientifically valid results. These data represent only a portion of an overall IAQ investigation. Visual information and environmental conditions measured during the site assessment (humidity, moisture readings, etc.) are crucial to any final interpretation of the results. Many factors impact the final results; therefore, result interpretation should only be conducted by qualified individuals. The American Conference of Governmental Industrial Hygienists (ACGIH) has published a good reference book covering sampling and data interpretation. It is entitled, Bioaerosols: Assessment and Control, 1999.

Fungal spores are found everywhere. Whether or not symptoms develop in people exposed to fungi depends on the nature of the fungal material (e.g., allergenic, toxic, or infectious), the exposure level, and the susceptibility of exposed persons. Susceptibility varies with the genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, pre-existing medical conditions (e.g., diabetes, cancer, or chronic lung conditions), use of immunosuppressive drugs, and concurrent exposures. These reasons make it difficult to identify dose/response relationships that are required to establish “safe” or “unsafe” levels (i.e., permissible exposure limits).

It is generally accepted in the industry that indoor fungal growth is undesirable and inappropriate, necessitating removal or other appropriate remedial actions. The New York City guidelines and EPA guidelines for mold remediation in schools and commercial buildings define the conditions warranting mold remediation. Always remember that water is the key. Preventing water damage or water condensation will prevent mold growth.

This report is not intended to provide medical advice or advice concerning the relative safety of an occupied space. Always consult an occupational or environmental health physician who has experience addressing indoor air contaminants if you have any questions.



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4. Glossary of Fungi

ALTERNARIA(ULOCLADIUM)

Natural Habitat	Common saprobe and pathogen of plants. Typically found on plant tissue, decaying wood, and foods. Soil . Air outdoors.
Suitable Substrates in the Indoor Environment	Indoors near condensation (window frames, showers), House dust (in carpets, and air). Also colonizes building supplies, computer disks, cosmetics, leather, optical instruments, paper, sewage, stone monuments, textiles, wood pulp, and jet fuel
Water Activity	Aw =0.85-0.88 (water damage indicator)
Mode of Dissemination	Wind
Allergic Potential	Type I allergies (hay fever, asthma), Type III (hypersensitivity pneumonitis)
Potential or Opportunistic Pathogens	Phaeohyphomycosis {causing cystic granulomas in the skin and subcutaneous tissue}. In immunocompetent patients, Alternaria colonizes the paranasal sinuses, leading to chronic hypertrophic sinusitis
Industrial Uses	Biocontrol of weed plants ·Biocontrol fungal plant pathogens.
Potential Toxins Produced	Alternariol (AOH) . Alternariol monomethylether (AME). Tenuazonic acid (TeA). Altenuene (ALT). Altertoxins (ATX)
Other Comments	Many species of Ulocladium have been renamed as Alternaria. Alternaria spores are one of the most common and potent indoor and outdoor airborne allergens. Additionally, Alternaria sensitization has been determined to be one of the most important factors in the onset of childhood asthma. Synergy with Cladosporium or Ulocladium may increase the severity of symptoms
References	Alternaria redefined. J. Woudenberg et al., Studies in Mycology. Volume 75, June 2013, Pages 171-212

ASCOSPORES

Natural Habitat	Everywhere in nature.
Suitable Substrates in the Indoor Environment	Depends on genus and species.
Water Activity	Depends on genus and species.
Mode of Dissemination	Forcible ejection or passive release and dissemination by wind or insects.
Allergic Potential	Depends on genus and species.
Potential or Opportunistic Pathogens	Depends on genus and species.
Industrial Uses	Depends on genus and species.
Potential Toxins Produced	Depends on genus and species.
Other Comments	Ascospores are the result of sexual reproduction and produced in a saclike structure called an ascus. All ascospores belong to members of the Phylum Ascomycota, which encompasses a plethora of genera worldwide.

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ASPERGILLUS

Natural Habitat	Soil and Plant debris.
Suitable Substrates in the Indoor Environment	Grows on a wide range of substrates indoors. Prevalent in water damaged buildings
Water Activity	Aw=0.75-0.94
Mode of Dissemination	Wind
Allergic Potential	Allergic bronchopulmonary aspergillosis (ABPA) which is common in asthmatic and cystic fibrosis patients. Aspergillus sinusitis. Invasive aspergillosis in immunocompromised patients
Potential or Opportunistic Pathogens	Aspergilloma and chronic pulmonary aspergillosis in people with lung disease.
Industrial Uses	A. sojae is used for fermented food and beverages in Asia. A. oryzae is used in soy sauce production. A. terreus produces mevinoлин which is able reduce blood cholesterol. A. niger produces enzymes used to make some breads and beers and is also used in plastic decomposition. A. niger and A. ochraceus are used in cortisone production
Potential Toxins Produced	3-Nitropropionic acid, 5-metoxystermatocystin, Aflatoxin B1, B2, Aflatoxin G1, G2, Aflatoxin M1, M2, Aflatoxin P1, Aflatoxin Q1, Aflatoxins, Aflatrem (alkaloid), Aflatrem (indole alkaloid), Aflavinin, Ascalidol, Aspergillic acid, Aspergillomarasmin, Aspertoxin, Asteltoxin, Austamid, Austdiol, Austins, Austocystins, Avenaciolide, Brevianamide A, Candidulin, Citreoviridin,, Citrinin, Clavatul, Cyclopiazonic acid, Cyclopiazonic acid, Cytochalasin E, Emodin, Fumagillin, Fumigaclavine A, Fumigatin, Fumitremorgens, Fumitremorgin A, Gliotoxin, Griseofulvin, Helvolic acid, Kojic acid, Kotanin, Malformins, Naphtopyrones, Neoaspergillic acid, Nidulin, Nidulotoxin, Nigragillin, Ochratoxin A, Ochratoxin B, Ochratoxin C, Ochratoxins β , Ochratoxins α , Ochratoxins (A,B,C, α , β), Orlandin, Oryzacin, Paspaline, Patulin, Penicillic acid, Phthioic acid, Secalonic acid A, B, D and F, Sphingofungins, Spinulosin, Sterigmatocystin, Terphenyllin, Terredional, Terreic acid, Terrein, Terretionin, Terretionin, Territrem A, Tryptoquivalines, Verruculogen, Versicolorin A, Viomellein, Viriditoxin, Xanthocillin, Xanthomegnin, β -nitropropionic acid.
Other Comments	It is the second most common opportunistic pathogen following Candida.

ASPERGILLUS/PENICILLIUM++

Natural Habitat	Plant debris ·Seed ·Cereal crop
Suitable Substrates in the Indoor Environment	Grows on a wide range of substrates indoors ·Prevalent in water damaged buildings ·Foods (blue mold on cereals, fruits, vegetables, dried foods) ·House dust ·Fabrics ·Leather ·Wallpaper ·Wallpaper glue
Allergic Potential	Type I (hay fever, asthma) ·Type III (hypersensitivity)
Potential Opportunist or Pathogen	Possible depending on the species.
Potential Toxins Produced	Possible depending on the species.
Free moisture required for mold growth	Aw=0.75-0.94
Mode of Dissemination	Wind ·Insects
Industrial Uses	Many depending on the species
Other comments	Spores of Aspergillus and Penicillium (including others such as Geosmithia, Goidanichella, Nalanthamala, Rasamsonia, Samsoniella, and Talaromyces) are small and spherical with few distinguishing characteristics. They cannot be differentiated by non-viable impaction sampling methods. Some species with very small spores may be undercounted in samples with high background debris.

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BASIDIOSPORES

Natural Habitat	Forest floors. Lawns .Plants (saprobies or pathogens depending on genus)
Suitable Substrates in the Indoor Environment	Depends on genus. Wood products
Water Activity	Unknown.
Mode of Dissemination	Forcible ejection. Wind currents.
Allergic Potential	Type I allergies (hay fever, asthma) . Type III (hypersensitivity pneumonitis)
Potential or Opportunistic Pathogens	Depends on genus.
Industrial Uses	Edible mushrooms are used in the food industry.
Potential Toxins Produced	Amanitins. monomethyl-hydrazine. muscarine. ibotenic acid. psilocybin.
Other Comments	Basidiospores are the result of sexual reproduction and formed on a structure called the basidium. Basidiospores belong to the members of the Phylum Basidiomycota, which includes mushrooms, shelf fungi, rusts, and smuts.

BIPOLARIS++

Natural Habitat	Plant saprophyte.Plant pathogen of many plants, causing leaf rot, crown rot, and root rot on warm season turf grasses
Suitable Substrates in the Indoor Environment	House plants, Indoor building materials
Free moisture required for mold growth	Unknown
Mode of Dissemination	Wind
Allergic Potential	Hay fever, asthma. Allergic and chronic invasive sinusitis
Potential or Opportunistic Pathogens	Invasive sinusitis, disseminated mycoses, peritonitis, keratitis, phaeohyphomycosis
Potential Toxins	Can potentially produce sterigmatocystin.
Other Comments	Includes Bipolaris, Drechslera, Exserohilum.

CHAETOMIUM++

Natural Habitat	Dung. Seeds. Soil. Straw. Genera with like spores include Amesia, Arcopilus, Botryotrichum, Collariella, Dichotomopilus, Ovatospora, Subramaniula and others.
Suitable Substrates in the Indoor Environment	Paper. Sheetrock. Wallpaper.
Water Activity	Aw=0.84-0.89.
Mode of Dissemination	Wind. Insects. Water splash.
Allergic Potential	Type I (asthma and hay fever).
Potential or Opportunistic Pathogens	Onychomycosis. C. perlucidum recognized as a new agent of cerebral phaeohyphomycosis.
Industrial Uses	Cellulase production, Textile testing.
Potential Toxins Produced	Chaetomin. Chaetoglobosins A,B,D and F are produced by Chaetomium globosum. Sterigmatocystin is produced by rare species

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CLADOSPORIUM

Natural Habitat	Dead plant matter. Straw. Soil. Woody plants
Suitable Substrates in the Indoor Environment	Fiberglass duct liner. Paint. Textiles. Found in high concentration in water-damaged building materials.
Water Activity	Aw 0.84-0.88
Mode of Dissemination	Air
Allergic Potential	Type I (asthma and hay fever).
Potential or Opportunistic Pathogens	Edema. keratitis. onychomycosis. pulmonary infections. Sinusitis.
Industrial Uses	Produces 10 antigens.
Potential Toxins Produced	Cladosporin and Emodin.

GANODERMA

Natural Habitat	Grows on conifers and hardwoods worldwide, causing white rot, root rot, and stem rot.
Suitable Substrates in the Indoor Environment	Unknown.
Water Activity	Unknown.
Mode of Dissemination	Wind.
Allergic Potential	Ganoderma species are known to cause allergies in people on a worldwide scale.
Potential or Opportunistic Pathogens	Unknown.
Industrial Uses	Biopulping of wood for the paper industry. Potential medicinal use due to: 1. Inhibition of Ras dependent cell transformation, 2. Antifibrotic activity, 3. Immunomodulating activity, 4. Free-radicle scavenging
Potential Toxins Produced	Unknown.
Other Comments	Used in traditional Chinese medicine as an herbal supplement. It is also known as a "shelf fungus" because the fruiting body forms a stalk-less shelf on the sides of trees and logs. It is sometimes called "artists conk" because when you scratch the white pores of the fruiting body, the white rubs away and exposes the brown hyphae underneath. Thus, pictures can be produced on the fruiting body.
Reference	References: Craig, R.L., Levetin, E. 2000. Multi-year study of Ganoderma aerobiology. Aerobiologia 16: 75-81. http://www.pfc.forestry.ca/diseases/CTD/Group/Heart/heart6_e.html

MYXOMYCETES++

Natural Habitat	Decaying logs, Dead leaves , Dung , Lawns , Mulched flower beds, Lawns
Suitable Substrates in the Indoor Environment	Rotting lumber
Free moisture required for mold growth	Unknown
Mode of Dissemination	Insects, Water, Wind
Allergic Potential	Type I
Potential or Opportunistic Pathogens	Unknown
Industrial Uses	
Other Comments	Includes Myxomycetes, Smut, Rust, and Periconia.

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Attn: Debbie Koontz
DK Environmental
8786 Sonoma Coast Drive
Winter Garden, FL 34787

EMSL Order: 342408195
Customer ID: DKEN75
Collected: 4/19/2024
Received: 4/19/2024
Analyzed: 4/20/2024

Proj: 1560 NW 14th Street Ocala, FL 34475

RUSTS

Natural Habitat	Parasitic on cultivated and many types of plants
Suitable Substrates in the Indoor Environment	Unknown- rust fungi require a living plant host for growth
Free moisture required for mold growth	Unknown
Mode of Dissemination	Wind, Forcible Ejection
Allergic Potential	Type I. (hay fever, asthma)
Potential or Opportunistic Pathogens	Unknown

SCOLECOBASIDIUM

Natural Habitat	Soil, decaying plant material in contact with soil
Suitable Substrates in the Indoor Environment	Unknown
Free moisture required for mold growth	Unknown
Mode of Dissemination	Unknown
Allergic Potential	Unknown
Potential or Opportunistic Pathogens	No case of infection has been reported from humans. A few cases of phaeohyphomycosis have been reported in fish, namely coho salmon and rainbow trout

SCOPULARIOPSIS/MICROASCUS

Natural Habitat	Worldwide saprophytic fungi, being isolated from dead plant material and soil.
Suitable Substrates in the Indoor Environment	Dairy products, fruit, grain, paper, wood
Water Activity	Unknown
Mode of Dissemination	Wind
Allergic Potential	Hypersensitivity
Potential or Opportunistic Pathogens	While Scopulariopsis is commonly considered a contaminant, it may cause onychomycosis, skin lesions, keratitis, pulmonary infections, endocarditis, particularly in immunocompromised patients.
Other Comments	Scopulariopsis is the anamorphic name (asexual stage) and Microascus is the teleomorphic name (sexual stage).



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5. References and Informational Links

Books

- Bioaerosols: Assessment and Control. Janet Macher, Ed., American Conference of Governmental Industrial Hygienists, Cincinnati, OH 1999.
- Exposure Guidelines for Residential Indoor Air Quality. Environmental Health Directorate, Health Protection Branch, Health Canada, Ottawa, Ontario, 1989.
- Fungal Contamination in Public Buildings: Health Effects and Investigation Methods. Health Canada, Ottawa, Ontario, 2004.
- IICRC: S500 Standard and Reference Guide for Professional Water Damage Restoration. 3rd Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2006
- IICRC: S520 Standard and Reference Guide for Professional Mold Remediation. 1st Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2004
- Field Guide for the Determination of Biological Contaminants in Environmental Samples. 2nd Edition, American Industrial Hygiene Association, 2005.

Consumer Links

Read the full text of AIHA's "The Facts About Mold" consumer brochure.

<http://www.aiha.org/get-involved/VolunteerGroups/Documents/BiosafetyVG-FactsAbout%20MoldDecember2011.pdf>

The Occupational Safety and Health Administration (OSHA)

<http://www.osha.gov/SLTC/molds/index.html>

CDC Mold Facts

<http://www.cdc.gov/mold/faqs.htm>

CDC Stachybotrys - Questions and answers on Stachybotrys chartarum and other molds

<http://www.cdc.gov/mold/stachy.htm>

IOM, NAS: Clearing the Air: Asthma and Indoor Air Exposures

<https://www.epa.gov/indoor-air-quality-iaq/should-you-have-air-ducts-your-home-cleaned>



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National Library of Medicine-Mold website

<http://www.nlm.nih.gov/medlineplus/molds.html>

California Department of Health Services (CADOHS)

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/Mold.aspx>

Minnesota Department of Health

<http://www.health.state.mn.us/divs/eh/indoorair/mold/index.html>

New York City Department of Health and Mental Hygiene

<https://www1.nyc.gov/site/doh/health/health-topics/mold.page>

H.R.: The United States Toxic Mold Safety and Protection Act

EPA

"Should You Have the Air Ducts in Your Home Cleaned?"

<http://www.epa.gov/iaq/pubs/airduct.html>

General information about molds and actions that can be taken to clean up or prevent a mold problem.

<http://www.epa.gov/asthma/molds.html>

"A Brief Guide to Mold, Moisture, and Your Home" - Includes basic information on mold, cleanup guidelines, and moisture and mold prevention

<http://www.epa.gov/mold/moldguide.html>

"Mold Remediation in Schools and Commercial Buildings" - Information on remediation in schools and commercial property, references for potential mold and moisture remediators.

<https://www.epa.gov/mold/mold-remediation-schools-and-commercial-buildings-guide>

FEMA

"Homes That Were Flooded May Harbor Mold Problems" - Information and tips for cleaning mold.

<http://www.fema.gov/news-release/homes-were-flooded-may-harbor-mold-problems>

"Dealing With Mold & Mildew in Your Flood Damaged Home.

http://www.fema.gov/pdf/rebuild/recover/fema_mold_brochure_english.pdf



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6. Important Terms, Conditions, and Limitations

A. Sample Retention

Samples analyzed by EMSL will be retained for 60 days after analysis date. Storage beyond this period is available for a fee with written request prior to the initial 30 day period.

Samples containing hazardous/toxic substances which require special handling will be returned to the client immediately. EMSL reserves the right to charge a sample disposal fee or return samples to the client.

B. Change Orders and Cancellation

All changes in the scope of work or turnaround time requested by the client after sample acceptance must be made in writing and confirmed in writing by EMSL. If requested changes result in a change in cost the client must accept payment responsibility. In the event work is cancelled by a client, EMSL will complete work in progress and invoice for work completed to the point of cancellation notice. EMSL is not responsible for holding times that are exceeded due to such changes.

C. Warranty

EMSL warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures and with reasonable care in accordance with applicable federal, state and local laws. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. EMSL disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

D. Limits of Liability

In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. EMSL will not be held responsible for the improper selection of sampling devices even if we supply the device to the user. The user of the sampling device has the sole responsibility to select the proper sampler and sampling conditions to insure that a valid sample is taken for analysis. Any resampling performed will be at the sole discretion of EMSL, the cost of which shall be limited to the reasonable value of the original sample delivery group (SDG) samples. In no event shall EMSL be liable to a client or any third party, whether based upon theories

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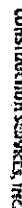
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of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder.

E. Indemnification

Client shall indemnify EMSL and its officers, directors and employees and hold each of them harmless for any liability, expense or cost, including reasonable attorney's fees, incurred by reason of any third party claim in connection with EMSL services, the test result data or its use by client



Page ____ of ____

Project #/ Job #:
#342408195

Sample #:	Sample Identification:	Sample Type:		Turnaround Time:		For Lab Use Only
		A=Air T=Tape S=Swab B=Bulk W=Water	_____ Standard _____ Rush			
		Date	Sample Type	Volume (Air)	Area (Swab)	
				A001		
				T001		
				S001		
				A002		
				T002		
				S002		
		Sample Numbers				

Date	Time	Relinquished By	Company	Received By	Company	Good Condition
04/19/24	8:40 am	<i>[Signature]</i>		<i>[Signature]</i>	APR 19 2024	Yes No
					12/8/19	Yes No
						Yes No