[redacted]

MOLD INSPECTION AND TESTING REPORT

For:

[redacted]

For:
4886 Paseo de Vega
Irvine CA 92603

BY:

[redacted]

Certified Mold Inspector
Certified Mold Remediator
Certified Environmental Hygienist
Professional Industrial Hygienist

Test Date:	**April 30, 2021**
Report Date	**May 03, 2021**

Inspectors' Training, Certifications, and Experience:

[redacted] is a Certified Environmental Hygienist, Professional Industrial Hygienist, Certified Mold Inspector, Certified Mold Remediator, and Certified Ozone Professional. [redacted] was one of the first full-time mold inspectors in the USA, starting his mold inspection career in 1999, two years ahead of the time when Americans woke up to the

dangers of living and working in elevated levels of mold growth. [redacted] has provided mold inspection, testing, and remediation services for houses, condominiums, apartments, offices, workplaces, retail stores, factories, warehouses, and other commercial buildings in the USA, and Asia.

Report Purpose:

April 30, 2021

[redacted] requested IEC do a Post Mold inspection and take samples in the kitchen and upstairs bathroom at 4886 Paseo de Vega in Irvine CA. There had been a water intrusion problem in the kitchen underneath the sink due to a plumbing leak. In the master bathroom the sink cabinet plumbing has been leaking. Also, the master shower flooring there is a crack in the fiberglass floor.

See pictures below.

Figure 1 a non-viable air sample was taken underneath the kitchen sink . The air sample revealed toxic mold. (see findings and recommendations)

Figure 2 A moisture meter shows over 100% moisture (Red) behind the drywall underneath the Master Bathroom

Figure 3 Here is the remains of the fiber board that was removed under the kitchen sink

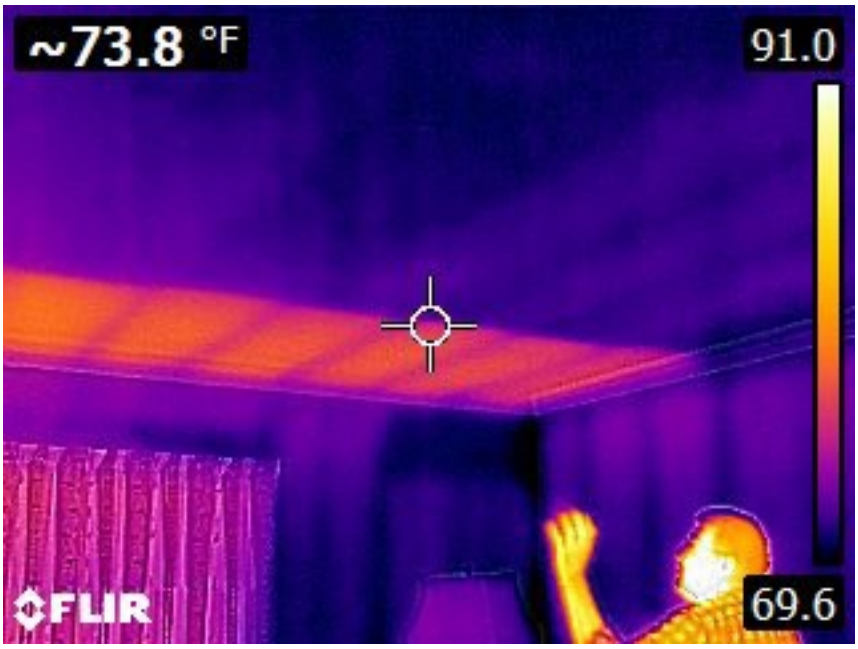

Figure 4 Thermo Image ceiling below bathroom Dark purple detects moisture

Figure 5 Just below toilet moisture from possible wax seal leaking

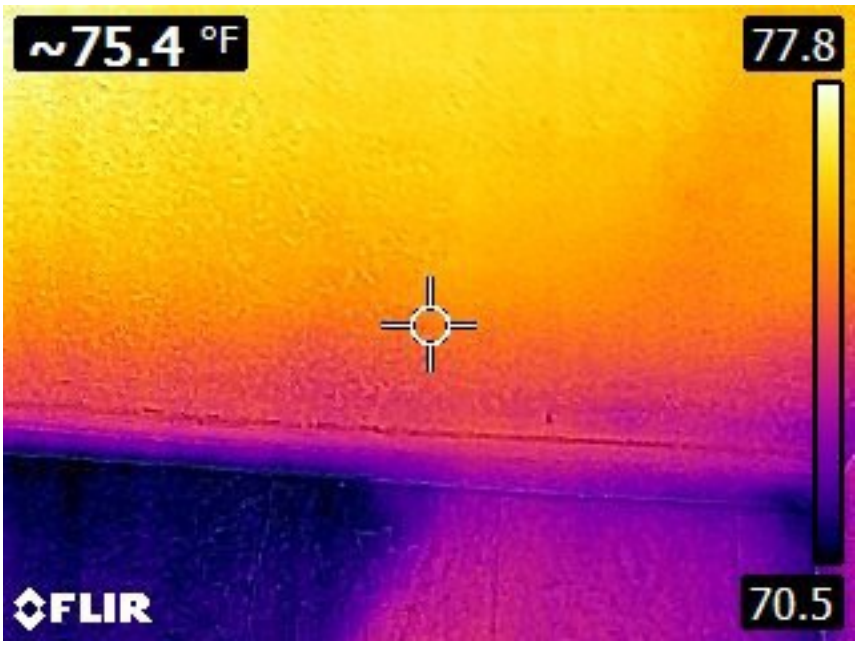

Figure 6 Here upstairs in bathroom cabinet the drywall was moist and damp

Figure 7 Upstairs shower fiberglass floor cracked water when showering has been leaking to ceiling in front room

Air Quality Mold Report

May 3, 2021

FINDINGS & CONCLUSIONS:

(See Lab report attached.)

The Laboratory report from Hayes Laboratory and the Field observations, measurements, and analysis in this report are believed to provide sufficient detail to form a reasonable basis for an assessment of this property. The assessment, conclusions, and recommendations presented are based upon the subjective evaluation of limited data. All conditions at the inspected site may not be identified as the information has been collected from specific location. Hidden conditions, or conditions not identified by the client, may not be found. The findings and conclusions in this report have been developed using generally accepted industrial hygiene methods.

Authoritative interpretive bodies used for guidelines:

American Conference of Governmental Industrial Hygienists (ACGIH) and the United States Environmental Protection Agency (EPA)

FINDINGS & CONCLUSIONS:

Based on the samples taken and the lab report from Hayes Laboratory there is a serious mold issue problem found from the Non-viable air samples taken in the kitchen. **Stachybotrys** and **Chaetomium** known as toxic mold had high levels. The non-viable air sample taken in the upstairs bathroom also had **a toxic mold, Penicillium/Aspergillus.** The swab sample taken from the crack in the bathroom shower was covered with moderate amount of **Chaetomium.**

Field observations, measurements, and analysis in this report are believed to provide sufficient details to form a reasonable basis for an assessment of this property. The assessment, conclusions, and recommendations presented are based upon the subjective evaluation of limited data. All conditions at the inspected site may not be identified as the information has been collected from specific locations. Hidden conditions, or conditions not identified by the client, may not be found. The findings and conclusions in this report have been developed using generally accepted industrial hygiene methods.

RECOMMENDS:

Based on the laboratory report elevated levels of *Stachybotrys*, and *Chaetomium* were found It is this inspector's recommendation that under these conditions direct steps are needed to correct the mold problem rectified prior to putting the drywall back and final repairs. If not properly corrected, the mold can re-grow.

HEALTH ISSUES WITH TOXIC MOLD

There are more mold health issues caused by TOXIC MOLD and other types of mold than you might imagine. Toxic mold symptoms include many respiratory symptoms but also some other health problems. While some types of mold are better known for causing health problems than others, the Environmental Protection Agency reports that all types of mold can cause health issues. The more toxic mold you have in your house and the greater the length of time you are exposed to it, the more health issues you may experience, but even limited exposure can cause health problems in sensitive people.

Respiratory Toxic Mold Symptoms

Most health problems related to exposure to toxic mold are related to the respiratory system, and include:

- Asthma attacks/worsening of asthma symptoms in people with the condition
- Development of asthma in people that did not previously have the condition
- Coughing
- Sneezing
- Runny nose
- Stuffed up nose
- Hypersensitivity pneumonitis (a lung disease similar to bacterial pneumonia)
- Pulmonary hemorrhage (acute bleeding from the lung)
- Allergic reactions similar to hay fever or other environmental allergies

It is this inspector's recommendation that you and your family that are having health problems see your doctor and let him know the what type of toxic mold that was found in your home. He'll run a battery of test to see if they are present in your system and then can properly treat you.

It is advisable to hire a qualified certified remediation contractor to repair and fix the problem of mold contamination directly due to the water intrusion in the kitchen and upstairs bathroom. A full containment in the kitchen and bathroom is needed to prevent further cross contamination to other parts of the home. Although no sampling was done in the other rooms it is most likely cross contamination has already taken place.

Mold Remediation Protocol Plan:

Indoor Environmental Control, recommends the following, mold removal and mold remediation procedures be followed.

Kitchen:

- Set up full containment in kitchen
- Remove kitchen sink cabinet and Dishwasher
- Remove drywall behind sink from floor up 4’ and 18” beyond water intrusion

Bathroom upstairs

- Set up containment in Upstairs bath
- Remove bathroom sink from wall
- Remove drywall from floor up 4’ and 18” beyond water damage
- Remove toilet (later replace wax ceil)
- Remove fiberglass shower

 We provide any build back of any moldy building that are removed and discarded if necessary during the process. I.E.C. expertise is to kill, remove, and prevent mold growth from coming back with our 10 years’ work guarantee with post clearance certification. I.E.C. also formally submitting herein a mold remediation bid quotation to conduct the mold remediation procedures.

(1) The mold remediation crew (during all mold remediation procedures) will wear personal protective gear including 3M organic vapor

breathing respirator rated P-100, Tyvek body suit with built-in parka hood and booties, disposable vinyl gloves, eye goggles with no

holes ("Chem-Splash"). All remediation crew work procedures and practices shall adhere to OSHA safety rules and regulations.

(2) Install containment wall using 6 mil thick plastic sheeting on any area that needs invasive procedures like removing visible mold

growth on building materials in the apartment. to avoid dust and dirt accumulation

and mold cross contamination during the mold remediation process.

(3) Run industrial high output air scrubbers during the entire mold remediation procedures as negative air pressure inside the contained area (except during ozone treatment) containing HEPA filter and activated carbon filter to remove airborne mold spores, mycotoxins (dangerous volatile organic compounds thrown into the air during mold growth), dust, and dirt The air exhaust from the air scrubber(s) will be directly vented by flexible duct hosing to the outdoors.

(4) Provide high output ozone generators to provide high output ozone treatment throughout the garage area, and the heating/cooling air ducts and equipment for 4 hours to kill mold spores, mold growth, mold odors, bacteria, germs and any other biological contamination. Please read about the effectiveness of ozone treatment on the website www.ozonegeneratorkillsmold.com

Caution: There must be **NO** people, pets, and live plants in the house during the ozone treatment sessions and 2 hours afterwards.

(5) Physically remove all visible mold growth and moldy building materials throughout affected garage wall behind water heater,

washer, dryer and ceiling. This procedure will apply invasive procedures like removing building material that mold growth that are deep into the surfaces.

(6) HEPA vacuum all walls, floors and all other surfaces using HEPA vacuum with HEPA filter on affected contained remediation

area to capture and remove landed deposited mold spores, dust and debris during the mold remediation procedures.

(7) Fog/spray the entire garage with an EPA-registered fungicide .The fungicide contains two powerful quaternary ammonium chlorides, the strongest fungicides for the total kill of mold spores, mold growth, and germs.

(8) After drying process, apply clear fungicide encapsulation to help protect the wood against future humidity, moisture intrusion, and future mold growth for mold protection.

(9) Double bag and properly discarded all moldy building materials. Such bags will be removed from the apartment to transport and dispose all wastes at an approved landfill.

(10) At the conclusion of the mold remediation procedures stated in the mold remediation protocol plan above, our company will provide to do post clearance air testing of the mold remediated surface for mold lab analysis done by independent accredited lab, for mold species identification and quantification to monitor the progress of the mold remediation treatment procedures. I.E.C. will provide post clearance certification to certify that garage area Unit 2 remediated affected areas has been professionally mold remediated.

Indoor Environmental Control will fully implement the Mold Remediation Protocol Plan and stated above. The Mold Remediation

service fee includes all remediation materials, labor, mold clearance testing and all other remediation expenses.

Estimated Working Days7-9 working days

Mold Remediation Services & Build Back Fees:

A Proposal will be sent separately.

[redacted]
Certified Environmental Hygienist

Certified Mold Remediation Contractor

MOLD ABATEMENT PROTOCOL EXAMPLE

The procedures in this document are intended for professionals with training in mold remediation and are not intended as instructions for homeowners or the general public to facilitate the execution of the steps herein. No warranty or guarantee is expressed or implied in this plan. Clearance (that is, a satisfactory mold testing result after remediation) is not guaranteed. It is outside the scope of this or any document to supervise work in progress or plan for all the potential variables that may be encountered during remediation work. This document is not intended to be a technical analysis of the structure for code compliance, habitability, geological survey, presence of hazardous materials, value of the property, nor does it represent an opinion on health effects or the extent of microbial contamination.

All cleanup tasks should follow standard mold abatement protocols, including (but not limited to) the following:

Containment

Full containment is required for the cleanup of mold-contaminated surface areas. Areas of containment are required whenever surface areas treated are greater than 100 square feet or in any situation in which it appears likely that the occupant space would be further contaminated without full containment. Double layers of polyethylene should be used to create a barrier between the moldy area and other parts of the building. A decontamination chamber or airlock should be constructed for entry into

and exit from the remediation area. The entryways to the airlock from the outside and from the airlock to the main containment area should consist of a slit entry with covering flaps on the outside surface of each slit entry. The chamber should be large enough to hold a waste container and allow a person to put on and remove Personal Protective Equipment (PPE). All contaminated PPE except respirators should be placed in a sealed bag while in this chamber. Respirators should be worn until workers are outside the decontamination chamber. PPE must be worn throughout the final stages of HEPA vacuuming and damp-wiping of the contained area. Personal Protective Equipment must also be worn during HEPA vacuum filter changes or cleanup of the HEPA vacuum.

Interior Mold Abatement and Cleaning

The containment area shall be placed under negative air. Prior to opening the walls or removing the carpet, it will be necessary to ensure the area is contained and under negative air to prevent further contamination to other areas.

Lift the carpet and discard it by cutting it into small sizes, double bagging it, and removing it. Contaminated materials should be carefully removed in as large of a section as possible and immediately bagged in a 6-mil disposal bag or double bagged 3 mil bags. Contaminated materials should be carefully removed with a razor or carpet knives, cutting rather than tearing into pieces to prevent creation of dust.

When removing the drywall, attempt to unscrew the sheetrock screws or carefully pry the wallboard away from the studs. Do not smash these materials with a hammer or crow bar. If electric saws are used, they must have dust-collecting devices. Insulation is to be removed and immediately bagged in a 6-mil disposal bag or double bagged in 3 mil bags. A razor knife should be used to cut the paper or foil backing rather than tearing it into pieces. Keep the work area as free as possible from dust by using the HEPA vacuum cleaner and bagging all debris. Remove and bag all remaining drywall screws, nails and small debris. The bagged materials should be sealed inside a second bag before removing them to the outside of the containment area.

When removing drywall as described above, if mold is visible, continue removing the wallboard until the mold growth is all exposed and removed to a distance of two feet beyond the last visible growth. If mold growth is found, all exposed wood surfaces in the area that show mold growth are to be wire brushed and treated with a low VOC biocide.

When remediation is complete, the area is to be cleaned and the containment removed. Tools, HEPA vacuum cleaners, and negative air machines are to be vacuumed and damp wiped before leaving the containment area. All construction and other debris will be removed from the area.

HEPA vacuum and wipe all surfaces prior to removal of containment, starting with the ceiling, then walls and finally the floors. The HEPA vacuum brush attachment should be slowly and perpendicularly drawn across the surface with a minimum of 30% overlap on each pass. The HEPA negative air machine should continue to be operated

to act as an air scrubber. When all the surfaces are vacuumed, they are to be damp wiped with a very mild soap-water solution made by mixing a ½ teaspoon of soap per gallon of water. Clean rags should be used, and fresh sides used with each pass. All wiping movements should be done with parallel and overlapping passes. The clearance criterion for the cleaning is a white glove inspection with a standard of no visible dust.

Removal and Disposal of Contaminated Materials

Materials for disposal must not be left unattended outside. Bagged materials are to be transported to a secure dumpster or transport vehicle immediately after removing them from the building. The bagged materials are to be handled carefully with gloves while moving them to the disposal container. Respirators are not required outside while transporting double-bagged materials. The bags shall not be dropped, thrown, or handled roughly. They should be carried to a secure dumpster or transport vehicle and placed directly inside. Dumpsters with debris must be protected from unauthorized persons and either emptied on a daily basis or kept locked.

In the event the wrapped disposal materials should rupture outside the containment, the transporting workers shall don respiratory protection, secure the area from the public, initiate clean up (HEPA vacuuming), and contain the debris.

It has been determined that fungal contaminated sheet rock not containing asbestos and microbial infested materials may be disposed of in conventional municipal sanitary landfills. No special disposal is required. Labels may be placed on the bags to discourage Individual from opening these bags or removing them from the site.

Soft Goods

Any loose nonporous items should be “tagged and bagged”, removed from environment, and then individually vacuumed and wet wiped. The cleaning of soft or porous materials and furniture items is a case-by-case determination. Clothing and bedding items should be dry-cleaned. In heavily mold contaminated situations it is possible that some soft items like furnishings may have to be discarded. If the cost of cleaning exceeds the cost of replacement, disposal is usually the best option. Document all details for possible insurance reimbursement. In general, if a material is hard surfaced it can usually be wet wiped. In the case of irreplaceable family items, i.e., photographs cleaning may be preferred.

Clean up

To achieve a low mold spore level in the work area after demolition has been conducted, it is important to remove as much dust as possible. Clearance testing will fail if removal of dust and cleaning of surface is not conducted meticulously. Cleaning should consist of a combination of HEPA vacuuming and damp wiping using a minimal amount of water. This is referred to as a HEPA sandwich: HEPA vacuuming, damp wiping and HEPA vacuuming. Vacuum debris and dust from the floor. HEPA vacuum all exposed walls and wall cavity surfaces. Clean all containment surfaces. Damp wipe all surfaces and repeat the HEPA vacuuming procedure. The HEPA

vacuum and wipe down will include the entry, exit chamber (walls, floor and ceiling), and flaps. A HEPA filtered negative air machine placed inside the containment area without any ductwork is a tool to reduce the spore count but this procedure should not be used until all exposed areas have been cleaned and wire brushed.
When biocides are applied, conduct the application in accordance with the manufacturer's specifications. A wipe down of all non-porous surfaces with a solution containing 10% bleach may be used. To assure that visible dust and debris has been removed, conduct a final inspection of the containment area prior to any testing. Dust that may have settled outside the containment area is to be removed by HEPA vacuuming and damp wiping.

Containment Exit Protocol

Place bagged drywall or other materials into a second bag, damp wipe the bag, and place it into the outer exit chamber (clean room). Wipe off all tools and equipment removed from the containment and places them into a clean bag for off-site cleaning. Enter the first exit chamber (dirty room) to remove the outer Tyvek suit and place it in a disposal bag. If only one suit is worn, vacuum off its outer surface. Clean the outside of each respirator with alcohol wipes. Enter the second exit chamber (clean room) to remove the respirator and gloves. Place the gloves and Tyvek suit into a trash bag in the dirty room. Remove second Tyvek if worn in the clean room and dispose of it. Exit the containment area and wash your face and hands thoroughly with soap and water.

Breakdown of Containment

Prior to the breakdown of the containment, a thorough inspection of the cleaned containment area needs to be conducted by the project supervisor or an environmental consultant. Clearance testing is often required, and the containment must pass the clearance criteria before it can be dismantled. Cut the first layer of plastic sheeting and roll the interior layer of the containment plastic to the inside. Wipe down the second layer and remove it in the same manner as the first layer using proper disposal methods.

Additional Precautions

All gas sources in the containment area must be shut off to boilers, water heaters and appliances to prevent flame roll out or gas leakage. Negative air must be properly sequenced in stages to prevent further contamination of the residence. Supervision is required on an ongoing basis as conditions can change while work is in progress. Potential changes include but are not limited to air pressure changes induced by outside atmospheric conditions, discovery of microbial conditions not apparent until areas are opened up, discovery of additional moisture conditions such as plumbing leaks, subsurface moisture through retaining walls, cavity penetrations, exhaust of negative air machines to outside areas and numerous other conditions.
Changes may occur to remediation plans due to economic viability of removal vs. cleaning, HVAC conditions, moisture, further microbial growth and health considerations. Any material changes should be carefully thought out prior to

implementation and documented for all parties.

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