



IAQTN
ENVIRONMENTAL TESTING AGENCY

Mold Inspection & Testing

Coffee County Manchester Public Library

1005 Hillsboro Blvd

Manchester, TN 37355

December 05, 2025

Inspection Findings

IAQTN performed an inspection at the above-mentioned date in an attempt to identify potential mold conducive environments and mold on site. The inspection was performed as a stand-alone service as the clients wanted to better understand and identify any potential mold-related issues within the library. Air samples were taken on site in various areas of the building along with an (exterior) baseline comparison sample in order to determine the condition of the indoor air. Two surface sample were taken from areas of visible suspected mold growth to determine the mold types present. The samples were sent to an accredited laboratory for analysis.

The lab results showed a relatively low level of mold spores in the indoor air samples, less than the exterior comparison sample and well below levels commonly found indoors. The profile of the interior samples was similar to the exterior comparison and was of lower counts indicating that the exterior was only minimally affecting the indoor air quality. Although there were relatively low spore counts in the interior air samples, a zero-tolerance mold was identified in the Main Lobby sample. This was *Stachybotrys*, a bulk water indicator mold, known to produce mycotoxins and cause allergic type reactions in individuals exposed. This correlated with the surface sample taken from the HVAC register in the main lobby. This sample presented "High" levels of *Stachybotrys* and *Acremonium* both with fruiting bodies, indicating condition 3 environments and a major contamination. *Stachybotrys* requires long term moisture saturated materials to develop, especially within an HVAC system. This is an indication of poor functionality of the system and a larger scale contamination throughout the ducts and system. The surface sample taken from the "Large Print Corner" detected "high" levels of *Cladosporium*, with fruiting bodies, further confirming mold at this location. This mold is a more common indoor mold but at high levels could cause allergic type reactions. We classify the indoor air quality results as **ELEVATED**.



Temperature and humidity readings were taken throughout the interior of the building and the humidity measured well within acceptable ranges for the time of year and exterior conditions. Areas of elevated



moisture were identified in a few areas, primarily the back right corner of the building where there was evidence of water intrusion in the drop ceiling tiles. The drywall beneath measured wet at the time of inspection. The source of moisture was identified to be from a leaking gutter and poor flashing at this corner transition of the building. Another area of water damage was in the back left corner of the Large Print section of the library. This area presented a significant amount of water damage as the drywall was soft, delaminating and crumbling. No elevated moisture was identified at this location during the inspection, which may be due to the deteriorating nature of the finished materials, lack of full access due to the bookshelves or lack of rainfall in recent days. The source of this moisture damage was noted at this location due to the poorly maintained transition between the exterior walls just outside this area. The backer rod and sealant were completely deteriorated or missing at this location leaving a large gap in the exterior wall allowing wind driven rain to enter the structure. Also, at this location the gutter was showing signs of issue, leaking seams, poor flashing transitions between the wood siding and the block exterior wall. There were many inefficiencies in the exterior envelope of the structure. Another area of obvious moisture issue was in the ceiling of the main lobby where the roof had leaked significantly to cause deterioration and mold growth in the ceiling materials. Due to the height of the ceiling moisture readings were unable to be collected but thermal imaging showed that the issue was not active at the time of inspection.

There was visible mold growth on the ceiling registers in the main lobby area, and a significant amount of dust and debris collected on the returns as well. This could restrict the system and create condensation within the HVAC. Mold growth on supply registers is an indication of poorly functioning systems, as it would cause elevated humidity, and allow the surfaces of the registers to meet the dew point and condense. This would cause for dust collection, providing a food source for mold to grow off of in addition to the moisture needed for growth. Further with the Package units on the exterior of the building, the condensate drain lines did not have traps, which could cause exterior air to be brought into the system, preventing the system from draining condensation properly, which would result in elevated humidity levels within the interior of the structure. It was also evident that the shrouds were in need of repair as water was pooling on top of the systems outside.

Recommendations

Considering the laboratory results and the onsite inspection, a number of items were in need of repair to prevent mold conducive circumstances from occurring or persisting. The items are as follows:

- Remediation was needed throughout the building. This should be done following the IICRC S520 Best Practices which include:
 1. Identifying and correcting the moisture source and drying the wet materials. A proper evaluation and repair by a roofing and siding professional is needed to prevent further moisture intrusion into the structure. This should be focused on the water management systems such as the gutters and flashing, along with the exterior siding and transitions.
 2. Removal of some of the bookshelves and interior finishing is needed along with covering to prevent further contamination from the remediation process.



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3. The affected areas within the library should be put under containment and negative pressure to prevent the spread of mold spores throughout the remainder of the building. This should be done via air scrubbers, dehumidification and plastic sheeting with zipper doors.
 4. Any deteriorated materials should be removed and properly disposed of. All affected drywall should be cut out and removed a minimum of 2' surrounding the last visible trace of mold or moisture. Removal of materials should continue until moisture or mold affected areas are not detected. This should be done in the ceiling of the main lobby, the back corner of the "large print" section and the back corner of the Juvenile section as well.
 5. All remaining surfaces, after the drywall is removed, should be HEPA vacuumed to remove the visible mold growth from the affected areas.
 6. These remaining surfaces should be abrasively sanded to remove the remaining and imbedded mold structures.
 7. Then all of the exposed surfaces should be damp wiped and treated with a biocide to remove the remaining mold fragments and mold spores.
- Air scrubbers should be kept in place and running throughout the remediation process and for a minimum of 72 hours post remediation.
 - During this process, a qualified HVAC contractor in conjunction with a mold remediator should be hired to properly repair and clean the system. It is also recommended for the supply ducts be evaluated to determine if they could be properly cleaned or if replacement of the ducts is necessary. Due to the type of mold detected within the HVAC system, replacement is recommended.
 - After the repairs have been completed it is recommended to have a PRV (Post-Remediation Verification) inspection performed by an independent 3rd party, such as IAQTN, to confirm the effectiveness of the repairs.

We understand that there is a lot of information here and if you have any questions, please reach out to the IAQTN office.

Onsite Inspector:

Cody Ferrell CMI, CSMI, CCMI, CRMI, CRT, EDI-3

Owner, Indoor Environmental Professional

Photos



Figure 1 - Calibration check



Figure 2 – Water intrusion area – back corner of juvenile area



Figure 3 - Elevated moisture in drywall below



Figure 4 – Leaking gutter



Figure 5 - Water damage in "large print" Section

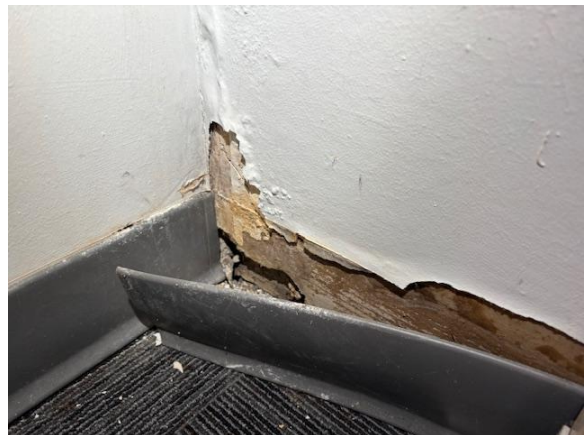


Figure 6 – Water damage in "large print" Section



Figure 7 - Poor flashing and sealing



Figure 8 – Deteriorated sealant

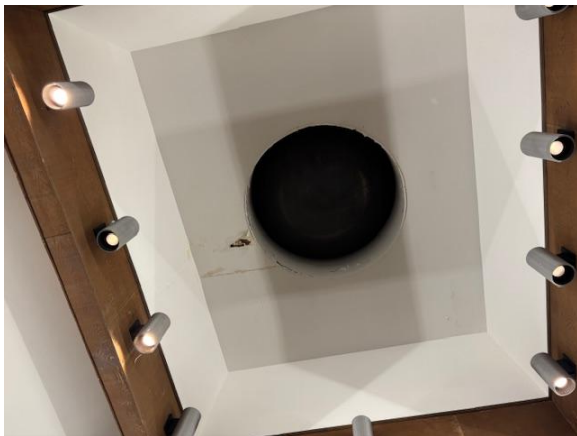


Figure 9 - water damage in ceiling of main lobbyt



Figure 10 – No condensate trap on HVAC systems



EMSL Analytical, Inc.

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EMSL Order: 022505677
Customer ID: IAQT36
Customer PO:
Project ID:

Attention: Cody Ferrell
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130 West Harbor
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Project: 1005 HILLSBORO BLVD

Phone: (615) 969-9764
Fax:
Collected Date:
Received Date: 12/16/2025 10:20 AM
Analyzed Date: 12/16/2025

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

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	022505677-0001 4126 3686 150 EXTERIOR			022505677-0002 4126 3680 150 ;ARGE PRINT BACK LEFT			022505677-0003 4126 3676 150 JUVENILES BACK LOFT		
	Raw Count†	Count/m³	% of Total	Raw Count†	Count/m³	% of Total	Raw Count†	Count/m³	% of Total
Spore Types									
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	1	7*	1.3	-	-	-	-	-	-
Aspergillus/Penicillium++	4	80	14.7	3	60	42.9	-	-	-
Basidiospores	8	200	36.8	2	40	28.6	5	100	71.4
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	10	210	38.6	1	20	14.3	2	40	28.6
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	2	40	7.4	1	20	14.3	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1	7*	1.3	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	26	544	100	7	140	100	7	140	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	-	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

† Due to method stopping rules, extrapolated raw counts are reported in parenthesis.
++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Kristie Elliott, Microbiology Laboratory Manager
or other Approved Signatory

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

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Samples analyzed by EMSL Analytical, Inc. Kernersville, NC AIHA LAP, LLC-EMLAP Accredited #102564

Initial report from: 12/16/2025 02:29 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com



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

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	022505677-0004 4126 3671 150			022505677-0005 4126 3670 150		
	BACK DESK			MAIN LOBBY		
Spore Types	Raw Count†	Count/m³	% of Total	Raw Count†	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-
Aspergillus/Penicillium++	-	-	-	1	20	20
Basidiospores	3	60	75	-	-	-
Bipolaris++	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-
Cladosporium	-	-	-	3	60	60
Curvularia	-	-	-	-	-	-
Epicoccum	1	20	25	-	-	-
Fusarium++	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-
Rust	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	1	20	20
Unidentifiable Spores	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-
Total Fungi	4	80	100	5	100	100
Hyphal Fragment	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-
Pollen	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-

† Due to method stopping rules, extrapolated raw counts are reported in parenthesis.
++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Kristie Elliott, Microbiology Laboratory Manager
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Project: 1005 HILLSBORO BLVD

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:	022505677-0006 121625-03 LARGE PRINT CORNER	022505677-0007 121625-04 REGISTER			
Spore Types	Category	Category			
Alternaria (Ulocladium)	-	-			
Ascospores	-	-			
Aspergillus/Penicillium++	-	-			
Basidiospores	-	-			
Bipolaris++	-	-			
Chaetomium++	-	-			
Cladosporium	*High*	-			
Curvularia	-	-			
Epicoccum	-	Rare			
Fusarium++	-	-			
Ganoderma	-	-			
Myxomycetes++	-	-			
Pithomyces++	-	-			
Rust	-	-			
Scopulariopsis/Microascus	-	-			
Stachybotrys/Memnoniella	-	*High*			
Unidentifiable Spores	-	-			
Zygomycetes	-	-			
Acremonium++	-	*High*			
Hyphal Fragment	-	-			
Insect Fragment	-	-			
Pollen	-	-			
Fibrous Particulate	-	-			

Category: Count/per area analyzed - Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

- Denotes Not Detected.

++ 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.

Kristie Elliott, Microbiology Lab Manager
or other Approved Signatory

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