Coyote Ridge Elementary Limited Mold Assessment Rooms 132 and 134

Treadway, David <treadwayd@lisd.net>

Thu 9/28/2023 12:57 PM

To:Cervantes, Padgett <cervantespi@lisd.net>;Thompson, Corry <thompsonca@lisd.net>
Cc:Butler, Leah <butlerlm@lisd.net>;Hughes, Jason <hughesjk@lisd.net>;Jones, Steven <jonessa@lisd.net>;Cashman, Jinger <cashmans@lisd.net>

Mrs. Cervantes,

Good afternoon. This email is to follow up with the results of the limited mold assessment in rooms 132 and 134 per a campus request. On 9/11/23, Ensolum LLC conducted a limited mold assessment at Coyote Ridge Elementary. It is typically assumed that indoor spore levels in an area with filtered or air-conditioned air, and activity levels associated with schools, average below the outdoor levels. Data from the airborne fungi sampling indicated that the total indoor concentration of mold/fungi in ***room 132 was 11%*** of the outdoor levels and ***room 134 was 9%*** of the outdoor levels. Utilizing this theory, the indoor concentration levels were within the acceptable guidelines for filtered or air-conditioned air at the time of testing. The final report will be available on the LISD website. It was observed that there were water-damaged ceiling tiles by the plumbing chase door in room 134. Water-damaged materials should be discarded or cleaned as applicable. It is also my recommendation that the rugs be cleaned and the air purification units be used while classrooms are occupied. Please let me know if you have any questions.

Sincerely,
David Treadway

David Treadway
LISD Environmental Coordinator
Facility Services Department

ENSOLUM

September 18, 2023

Lewisville Independent School District
1597 Edmonds Lane
Lewisville, Texas 75067
Attn: David Treadway

Re: Limited Mold Assessment Report
Coyote Ridge Elementary School - Rooms 132 and 134
4520 Maumee Drive
Carrollton, Texas 75010
Ensolum Proposal No. P01A1288194

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services within rooms 132 and 134 of Coyote Ridge Elementary School located at 4520 Maumee Drive in Carrollton, Texas. Enclosed is the report, including analytical data.

Ensolum appreciates this opportunity to be of service and looks forward to our continued work together. Please contact the undersigned with any questions or concerns you may have.

Sincerely,

Nolan Domain
Mold Assessment Consultant
MAC1479

Darren G. Bowden
Principal
MAC0321 EXP: 2/15/2024

1.0 INTRODUCTION

Ensolum was retained by David Treadway, LISD, to complete a Limited Mold Assessment within rooms 132 and 134 of Coyote Ridge Elementary School located at 4520 Maumee Drive in Carrollton, Texas. The purpose of this investigation was to determine if elevated concentrations of airborne fungal spores and structures were present within the above-referenced areas. Ensolum completed the on-site investigation on September 11, 2023. The Limited Mold Assessment was performed in response to a complaint of possible indoor air quality issues within specific areas.

2.0 PROCEDURE

Ensolum visually inspected accessible areas of rooms 132 and 134. Water damage was observed in the following locations:

VISIBLE WATER DAMAGE		
LOCATION	DATE	EXPLANATION
Room 132	9/11/2023	No Visible Damage
Room 134	9/11/2023	Air purifier was not operational within room. Evidence of water damage / rust on metal bottom plate of wall within the pipe utility in classroom. All material was dry at the time of assessment.

Following the inspection of potential water-damaged building materials, Ensolum conducted a moisture investigation in the identified areas to determine if nonvisible water-damaged materials and other building materials within the investigation area were present. The moisture investigation was completed with an Extech M0260 moisture meter on accessible porous and semi-porous building materials in each area of concern. At the time of investigation, monitored building materials did not exhibit elevated moisture concentrations in comparison with similar and non-affected building materials in the structure and standard scientific guidelines.

Representative Relative Humidity readings were collected and recorded using an Extech Instruments Humidity / Temperature Pen. Measurements recorded during the investigation are listed in the chart below:

TEMPERATURE, RELATIVE HUMIDITY & SPECIFIC HUMIDITY				
LOCATION	DATE	Temperature: F	Relative Humidity	Specific Humidity
Exterior, Front	9/11/2023	85.6 °F	34.6%	64.25 GPP
Room 132	9/11/2023	73.7 °F	43.8%	54.78 GPP
Room 134	9/11/2023	74.6 °F	41.3%	53.22 GPP
Outdoor Back Door of Wing	9/11/2023	87.0 °F	31.4%	60.96 GPP

Area air samples were collected with Air-O-Cell spore trap cassettes and analyzed for airborne fungal spores and structures. Samples were collected at a rate of 15 liters per minute. Indoor air sample(s) were collected for a five (5) minute period (75 liters) at a height of approximately five (5) feet above finished floor (AFF). Outdoor air samples were collected for a five (5) minutes period (75 liters) at a height of approximately five (5) feet above level ground. American Conference of Governmental Industrial Hygienists (ACGIH) guidelines were followed for the sample collection. Fungal air samples were collected in the following areas:

SPORE TRAP LOCATIONS	
SAMPLE NUMBER	**LOCATION**
ST-1	Exterior, Front
ST-2	Room 132
ST-3	Room 134
ST-4	Outdoor Back Door of Wing

3.0 RESULTS

Currently, there are no regulatory standards for airborne fungal contamination. Therefore, results of the fungal analysis are compared against scientific guidelines. Bioaerosol samples are evaluated by comparing the indoor samples against the outdoor sample. The same types of fungi should be found in both the indoor and outdoor samples.

Should higher fungal concentrations occur in the indoor sample(s) or complaint areas, this generally indicates there is a source of fungal growth in the area. The types of fungi are also evaluated-the same types/genus of fungi should be present in both the indoor/complaint and outdoor/non-complaint samples.

The results of the fungal air samples collected were evaluated. Air testing performed using spore traps found that airborne mold spores within the investigation area were considerably lower and were qualitatively like those measured outside of the building at the time the sampling was performed.

CONCLUSIONS

Based on ENSOLUM's limited assessment and the analytical results, it appears that the indoor air quality, as it relates to airborne fungi, was within recommended guidelines on the day of the assessment. Water damaged materials should be discarded or cleaned as applicable.

APPENDIX A

ANALYTICAL DATA

IAQ Mold Report

Summary

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460
TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : LISD, Coyote Ridge ES
Project # : 01A 1288 192
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-10984
Report Date : 09/13/2023
Sample Date: 09/11/2023
Spore Trap Type: Zefon - Air-O-Cell

On 9/11/2023, four (4) samples were submitted by a representative of Ensolum, LLC (located at 8330 LBJ Freeway, Suite 830 8330 LBJ Freeway, Suite 830, Dallas, TX 75243) for Spore Trap, Non-cultured mold analysis. This report consists of three sections; a summary section, a data detail section, and an analytical notes section.

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
ST-1	75	Outdoor Front * See Analytical Notes report for further details	Cladosporium	1850	38%
			Basidiospores	1680	35%
			Aspergillus / Penicillium	347	7%
			Ascospores	280	6%
			Cercospora / Pseudocercospora	187	4%
			Hyphal / Spore Fragments - Dematiaceous	133	3%
			Myxomycete / Periconia / Rust / Smut	80	2%
			Alternaria	67	1%
			Coprinus group	53	1%
			Fusarium	53	1%
			Nigrospora	40	<1%
			Ganoderma	40	<1%
			Drechslera / Bipolaris / Helminthosporum / Exserohilum group	27	<1%
			Total:	4837	100%
ST-2	75	Room 132	Hyphal / Spore Fragments - Dematiaceous	307	37%
			Curvularia	133	16%
			Cladosporium	133	16%
			Drechslera / Bipolaris / Helminthosporum / Exserohilum group	93	11%
			Alternaria	80	10%
			Myxomycete / Periconia / Rust / Smut	27	3%
			Sporormiella	27	3%
			Hyphal / Spore Fragments - Hyaline	13	2%
			Basidiospores	13	2%
			Ascospores	13	2%
			Total:	839	100%

IAQ Mold Report

Summary

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2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

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AIHA EMPAT ID: 102577

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Project # : 01A 1288 192
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-10984
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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
ST-3	75	Room 134	Hyphal / Spore Fragments - Dematiaceous	200	31%
			Alternaria	133	21%
			Drechslera / Bipolaris / Helminthosporum / Exserohilum group	120	19%
			Cladosporium	93	15%
			Curvularia	27	4%
			Myxomycete / Periconia / Rust / Smut	13	2%
			Hyphal / Spore Fragments - Hyaline	13	2%
			Nigrospora	13	2%
			Pithomyces	13	2%
			Ascospores	13	2%
			Total:	638	100%

IAQ Mold Report

Summary

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
ST-4	75	Outdoor Back Door of Wing * See Analytical Notes report for further details	Cladosporium	2424	31%
			Basidiospores	1600	20%
			Aspergillus / Penicillium	920	12%
			Curvularia	467	6%
			Trichoderma	453	6%
			Drechslera / Bipolaris / Helminthosporum / Exserohilum group	440	6%
			Hyphal / Spore Fragments - Dematiaceous	373	5%
			Cercospora / Pseudocercospora	333	4%
			Ascospores	293	4%
			Alternaria	253	3%
			Myxomycete / Periconia / Rust / Smut	107	1%
			Ganoderma	40	<1%
			Hyphal / Spore Fragments - Hyaline	27	<1%
			Spegazzinia	27	<1%
			Nigrospora	27	<1%
			Coprinus group	13	<1%
			Pestalotia / Pestalotiopsis	13	<1%
			Fusarium	13	<1%
			Total:	7823	100%

Analyst(s): Ashe Udie

Lab Director : Heather Lopez — Approved Signatory : Heather Lopez

Lab Director : Bruce Crabb — Approved Signatory : Bruce Crabb

End of Summary section (23F-10984)

Thank you for choosing Moody Labs

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IAQ Mold Report

Data Detail

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : LISD, Coyote Ridge ES
Project # : 01A 1288 192
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-10984
Report Date : 09/13/2023
Sample Date: 09/11/2023
Spore Trap Type: Zefon - Air-O-Cell

This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

Sample ID:	ST-1					ST-2					ST-3				
Location:	Outdoor Front					Room 132					Room 134				
Media Expires On:	Jul 2024					Jul 2024					Jul 2024				
Notes Included:	See Analytical Notes														
Volume:	75					75					75				
	Raw Ct	RL	spores/m³	%Total	spores/m³ SF	Raw Ct	RL	spores/m³	%Total	spores/m³ SF	Raw Ct	RL	spores/m³	%Total	spores/m³ SF
Alternaria	5	13	67	1%	70	6	13	80	10%	80	10	13	133	21%	130
Ascospores	21	13	280	6%	280	1	13	13	2%	10	1	13	13	2%	10
Aspergillus / Penicillium	26	13	347	7%	350										
Basidiospores	105	16	1680	35%	1700	1	13	13	2%	10					
Cercospora / Pseudocercospora	14	13	187	4%	190										
Chaetomium															
Cladosporium	111	17	1850	38%	1900	10	13	133	16%	130	7	13	93	15%	90
Coprinus group	4	13	53	1%	50										
Curvularia						10	13	133	16%	130	2	13	27	4%	30
Drechslera / Bipolaris / Helminthosporum /	2	13	27	<1%	30	7	13	93	11%	90	9	13	120	19%	120
Fusarium	4	13	53	1%	50										
Ganoderma	3	13	40	<1%	40										
Hyphal / Spore Fragments - Dematiaceous	10	13	133	3%	130	23	13	307	37%	310	15	13	200	31%	200
Hyphal / Spore Fragments - Hyaline						1	13	13	2%	10	1	13	13	2%	10
Myxomycete / Periconia / Rust / Smut	6	13	80	2%	80	2	13	27	3%	30	1	13	13	2%	10
Nigrospora	3	13	40	<1%	40						1	13	13	2%	10
Pestalotia / Pestalotiopsis															
Pithomyces											1	13	13	2%	10
Spegazzinia															
Sporormiella						2	13	27	3%	30					
Stachybotrys															
Trichoderma															
TOTALS	314		4837	100%	4800	63		839	100%	840	48		638	100%	640
Analyst	Ashe Udie					Ashe Udie					Ashe Udie				
Analysis Date	9/13/2023					9/13/2023					9/13/2023				
Debris Rating	2					4					4				
Debris Composition															
Fibers	0/5					2/5					2/5				
Inorganic/Other	2/5					2/5					3/5				
Insect Parts	1/5					0/5					0/5				
Pollen	0/5					0/5					0/5				
Skin/Dander	1/5					4/5					4/5				

IAQ Mold Report

Data Detail

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : LISD, Coyote Ridge ES
Project # : 01A 1288 192
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-10984
Report Date : 09/13/2023
Sample Date: 09/11/2023

Spore Trap Type: Zefon - Air-O-Cell

This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

Sample ID:	**ST-4**				
Location:	Outdoor Back Door of Wing				
Media Expires On:	Jul 2024				
Notes Included:	See Analytical Notes				
Volume:	75				
	Raw Ct	RL	spores/m³	%Total	spores/m³ SF
Alternaria	19	13	253	3%	250
Ascospores	22	13	293	4%	290
Aspergillus / Penicillium	69	13	920	12%	920
Basidiospores	104	15	1600	20%	1600
Cercospora / Pseudocercospora	25	13	333	4%	330
Chaetomium					
Cladosporium	103	24	2424	31%	2400
Coprinus group	1	13	13	<1%	10
Curvularia	35	13	467	6%	470
Drechslera / Bipolaris / Helminthosporum /	33	13	440	6%	440
Fusarium	1	13	13	<1%	10
Ganoderma	3	13	40	<1%	40
Hyphal / Spore Fragments - Dematiaceous	28	13	373	5%	370
Hyphal / Spore Fragments - Hyaline	2	13	27	<1%	30
Myxomycete / Periconia / Rust / Smut	8	13	107	1%	100
Nigrospora	2	13	27	<1%	30
Pestalotia / Pestalotiopsis	1	13	13	<1%	10
Pithomyces					
Spegazzinia	2	13	27	<1%	30
Sporormiella					
Stachybotrys					
Trichoderma	34	13	453	6%	450
TOTALS	492		7823	100%	7800
Analyst	Ashe Udie				
Analysis Date	9/13/2023				
Debris Rating	3				
Debris Composition					
Fibers	1/5				
Inorganic/Other	3/5				
Insect Parts	1/5				
Pollen	0/5				
Skin/Dander	2/5				

End of Data Detail section
23F-10984

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IAQ Mold Report

Analytical Notes

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460
TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : LISD, Coyote Ridge ES
Project # : 01A 1288 192
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-10984
Report Date : 09/13/2023
Sample Date : 09/11/2023
Spore Trap Type: Zefon - Air-O-Cell

This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

Samples Analyzed

Sample No:	ST-1 : Outdoor Front
Notes:	Please note: the minimum reporting limit for Cladosporium is 17 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers. Please note: the minimum reporting limit for Basidiospores is 16 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Sample No:	ST-4 : Outdoor Back Door of Wing
Notes:	Please note: the minimum reporting limit for Cladosporium is 24 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers. Please note: the minimum reporting limit for Basidiospores is 15 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Field Blanks

No discernable field blanks were submitted with this set of samples.

NOTE: All remaining samples suitable for analysis.

IAQ Mold Report

Analytical Notes

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460
TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : LISD, Coyote Ridge ES
Project # : 01A 1288 192
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-10984
Report Date : 09/13/2023
Sample Date : 09/11/2023
Spore Trap Type: Zefon - Air-O-Cell

This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

Methods

Method: MLQ - 0112 / ASTM D7391: Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction.
Sample by Optical Microscopy.
Samples are read at 100% under 400x magnification unless noted. Partial readings may be employed when concentrations are elevated. Use final spore concentrations, not raw spore counts, for interpretation of results.
Calculation: Spores/cubic meter = (Raw spore count)*(RL)
Note: RL (Reporting Limit) is based upon 1 raw spore count.
Moody Labs recommends two significant figures for calculated values based on ASTM D7391.

This report must not be used by the customer to claim product certification, approval, or endorsement by AIHA LAP, LLC, ISO, or any agency of the Federal Government.

Debris Rating Key

0 - No linear trace detected
1 - Trace particulate/debris
2 - Light particulate/debris
3 - Moderate particulate/debris
4 - Substantial particulate/debris
5 - Extensive particulate/debris
6 - Field blank
10 - Hold Sample
11 - Modified Analysis per Client Instructions

NOTE: Particulate/debris are defined as skin, fibers, pollen grains, insect parts, fungal and/or other non-fungal particles.

IAQ Mold Report

Analytical Notes

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Lab ID # 102577

Statewide Historically Underutilized Business Program

Woman Owned Small Business

Certified WBENC Women's Business Enterprise

TEXAS DEPARTMENT OF TRANSPORTATION
Small Business Enterprise Program

certified WBENC WOMEN'S BUSINESS ENTERPRISE

End of Analytical Notes section
23F-10984

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Chain of Custody

Lab Job # BF-10984 Std
Lab Job # 4 Hr TAT
Lab Job #

AFTER HOURS / WEEKEND WORK: ☐ YES ☐ NO
Please call in advance for after hours / immediate pricing & availability

Page ____ of ____

ASBESTOS PLM

Bulk ☐ Immediate ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5-7 day
☐ **Analyze All** ☐ **Positive Stop**

PCM Air (7400)

☐ Immediate ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day
Analyze Blanks ☐ **Yes** ☐ **No**

TOTAL DUST(0500/0600)

☐ 1 day ☐ 2 day

ASBESTOS TEM

Air AHERA Method ☐ Late Night* ☐ 6 hr ☐ 12 hr ☐ 24 hr
Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
Bulk ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day
Water/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
Analyze Blanks ☐ **Yes** ☐ **No**

*Late night analysis surcharges apply

MOLD

Direct Exam ☐ Immed ☐ 1 day ☐ 2 day ☐ 5 day
Standard Air ☐ Immed ☐ 1 day ☐ 2 day ☐ 5 day
Expanded Air ☐ Immed ☐ 1 day ☐ 2 day ☐ 5 day
TPC w/ Yeast & Mold (TYMC)** ☐ 5 day
Culture** ☐ 10-14 days
Analyze Blanks ☐ **Yes** ☐ **No**

BACTERIA**

Total Plate Count (TAMC) ☐ 2 day
Coliform & E. coli (P/A) ☐ 1 day
Coliform & E. coli (Q) ☐ 1 day
Enterococci (P/A) ☐ 1 day

Please note Bateria / Mold Culture turnarounds are approximate and subject to analytical requirements

OTHER: ____

Billing Company / City: Ensolum # of Samples: 4 Sample Date: 9-11-23
Project: LISD Coyote Ridge ES Project #: 01A 1288 192
Contact Information: Name: Dakota Phone #: ____
E-mail Results to: Ensolum.com Mobile #: 214 963 7931
Invoice Address: ____ P.O. #: ____

Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees

Notes: ____

Sample #	Sample Description	Vol. / Area (if applicable)	Location / Notes
ST-1	3656 1740	75	OUTDOOR FRONT
	H=30.5 T=85.6		
ST-2	3656 1742	75	Room 132
	H=43.8 T=73.7		
ST-3	3656 1760	75	ROOM 134
	H=41.3 T=74.6		
	Air Purifier Not Running in 134		
ST-4	3656 1844	75	OUT DOOR BACK DOOR of Wing
	H=31.4 T=87.0		

Released By:	Date / Time:	Received By:	Date / Time:
Nolan Dornin	9-11-23 14:05		9/11/23 1:50 pm
Released By:	Date / Time:	Received By:	Date / Time:

APPENDIX B

DEFINITIONS AND LIMITATION

ENSOLUM

Mold Services Definitions & Limitations

Ensolum performed services in accordance with generally accepted practices of the profession undertaken in similar services at the same time and in the same geographical area. No other warranties, express or implied, apply to the services hereunder or the final report.

Ensolum's services and any report have been prepared on behalf of and for the exclusive use of the Client solely for its use and reliance in assessing the presence of mold in the Investigation Areas of the site. The Client was the only party to which Ensolum explained the risks and limitations of the services and was solely involved in shaping the scope of services. Accordingly, reliance on this report by any other party may involve assumptions leading to an unintended interpretation of findings and opinions. With the consent of the Client, Ensolum may offer reliance to third parties or contract with other parties to develop findings and opinions related to such party's unique risk management concerns. Notwithstanding the foregoing, reliance by any and all third parties upon this deliverable, Ensolum's services or any subsequent report shall be limited in the aggregate to the fair market value of the services provided by Ensolum.

"Limited Mold Assessment". This deliverable uses the term "Limited Mold Assessment" to denote that Ensolum's mold assessment services are limited: (i) to certain portions of the building structure (e.g., the Investigation Areas), by non-destructive sampling methodologies, and/or by access limitations to building materials or components within the Investigation Area(s). In contrast to a "Limited Assessment" is a comprehensive assessment would involve destructive sampling methods with the assessment to be conducted throughout the entire building structure.

Time sensitive. One must keep in mind that mold assessments are essentially a "snap shot in time," and the results are only relevant at the time of site reconnaissance. Because mold, when biologically active, is a living organism, its presence is influenced and controlled by environmental conditions. Mold assessments, therefore, are "time sensitive" in that the presence and concentration of mold and similar organisms in building structures or in the air is directly influenced by environmental conditions (such as humidity, moisture, nutrients and substrates), whether natural or caused by man, which conditions may vary significantly over relatively short periods of time.

Methodologies. Currently, mold assessment methodologies and protocols in Texas are governed by persuasive guidelines (rather than promulgated federal/state or local regulations). Presently, there is no data that supports a threshold limit or dose-response relationship for exposure to mold aeroallergens, individual pathogens, opportunistic pathogens and/or mycotoxins. The Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety and Health (NIOSH) and other non-governmental associations, have not yet established permissible exposure limits (PELs), recommended exposure limits (RELs), or other limit values for fungi. Because no limit values presently exist. Ensolum will not and cannot represent that the site contains no harmful microbes, mold, fungi, or their metabolites, or other latent conditions beyond those identified by the limited scope of this mold assessment.

Findings limited. Findings in an LMA are limited due to the nature of the information obtained such as a visual reconnaissance of readily accessible areas of building structures, interview information, anecdotal information, and limited sampling data derived from one or more specific sampling events. Ensolum cannot warrant the accuracy of prior or subsequent information/data, reports and services performed by other firms at the Site. Ensolum assumes no responsibility or liability for errors in information or data provided by or through the client or third party sources. Ensolum's services are not to be construed as legal or medical interpretation or advice.

Moisture Intrusion Limitation. Ensolum performs mold assessment services and is not a moisture intrusion, HVAC, plumbing or building envelope specialist. However, during the course of conducting its mold assessment services, Ensolum will report observed areas of apparent moisture intrusion. Ensolum does not and will not investigate the cause or causes of such observed moisture intrusion. In the event apparent moisture intrusion is observed, Ensolum will recommend that the client contact a specialist (i.e., plumbing contractor, building envelope specialist, HVAC contractor, water intrusion specialist, etc.) to assist the client in determining the specific cause or causes of the moisture intrusion and remedial options.

Certificate of Mold Damage Remediation (CMDR). For mold remediation projects (above certain size thresholds), applicable Texas law (i.e., Texas Occupation Code Section 1958.54 and T.A.C. Section 295.397 (the Texas Mold Assessment and Remediation Rules), requires that a "Certificate of Mold Damage Remediation" be issued by the Mold Remediation Contractor upon successful completion of the project. This certificate must be provided to property owners no later than the 10th day after the date on which the mold remediation is completed at a property. The Mold Remediation Certificate issued by the Mold Remediation Contractor must include a certification by the Mold Assessor that the mold remediation project has been successfully completed in accordance with the mold remediation protocol.

Be advised that Ensolum's issuance of a CMDR upon successful completion of a Mold Remediation project does not mean, warrant or otherwise guarantee that mold will not be subsequently found in any portion of an Investigation Area or the Site. In the event that Ensolum is engaged to render services in connection with a mold remediation project, ENSOLUM will require Client to provide to Ensolum written documentation that all sources of moisture which contributed to the presence of mold in the Investigation Area have been fully remediated and corrected prior to achieving clearance.

APPENDIX B

LICENSES

TEXAS DEPARTMENT OF LICENSING AND REGULATION
P.O. Box 12157
Austin, Texas 78711-2157
1-800-803-9202 (512) 463-6599
www.tdlr.texas.gov

If you cut around the border of the license it will fit in a standard 5" x 7" frame.

ENSOLUM, LLC
SUITE 1203
2351 W NORTHWEST HWY
DALLAS TX 75220-4433

Mold Assessment Company

ENSOLUM, LLC

2351 W NORTHWEST HWY SUITE 1203 DALLAS

License Number: ACO1138

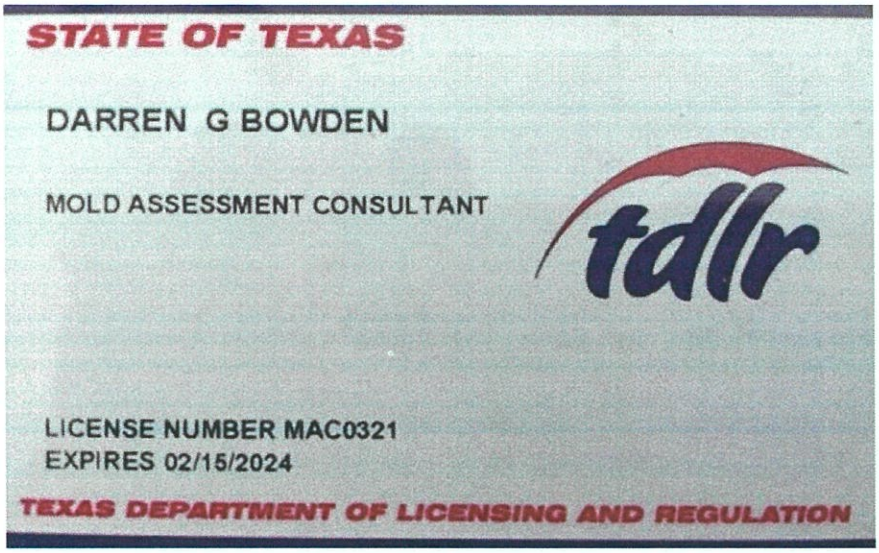
The entity named above is licensed by the Texas Department of Licensing and Regulation.

License Expires: February 07, 2024

Brian E. Francis
Executive Director

ENSOLUM

Texas Department of Licensing and Regulation
Mold Assessment Consultant
Darren G Bowden
License No. MAC0321 Expires February 15, 2024



Rick Figueroa
Chair

Thomas F. Butler
Vice Chair

TEXAS DEPARTMENT OF LICENSING & REGULATION

Gerald R. Callas, M.D., F.A.S.A.
Helen Callier
Nora Castañeda
Joel Garza
Gary F. Wesson, D.D.S., M.S.

Mold Assessment Consultant

NOLAN R DOMAIN

License Number: MAC1479

The person named above is licensed by the Texas Department of Licensing and Regulation.

License Expires: November 09, 2023

Brian E. Francis
Executive Director