Treadway, David

From:	Treadway, David
Sent:	Wednesday, July 10, 2019 1:52 PM
То:	Gilbreath, Justin
Cc:	Baxter, Tim; Wiley, Richard; Rangel, Rudolph; Barr, Shawn; Cashman, Susan; Darren
	Bowden; Hughes, Jason; Mutschler, Carolyn
Subject:	RE: IAQ - Air Test Results - The Colony HS -Field House Weight Room

Mr. Gilbreath,

Good afternoon. My name is David Treadway and I am the new IAQ coordinator. I am sending this email to follow up with the results of the retest of the Field House Weight Room. On 7/1/19, Ensolum LLC retested the Field House Weight Room. It is typically assumed that the 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 the Field House Weight Room, was **5.51%** of the outdoor levels. Utilizing this theory, the indoor concentrations were within the acceptable guidelines for areas with filtered air or air conditioning. The Aspergillus/Penicillium levels are significantly lower since the original air sampling. If you have any questions, please call or email me.

Thanks,

David

David Treadway Environmental Coordinator Lewisville ISD 469-948-7823

From: Siddall, Paul <siddallp@lisd.net> Sent: Tuesday, May 14, 2019 7:36 AM To: Gilbreath, Justin <GilbreathP@lisd.net>

Cc: Baxter, Tim <baxtert@lisd.net>; Wiley, Richard <WILEYR@lisd.net>; Rangel, Rudolph <rangelr@lisd.net>; Barr, Shawn <BARRS@lisd.net>; Cashman, Susan <CashmanS@lisd.net>; Darren Bowden <dbowden@ensolum.com>; Hughes, Jason <hughesjk@lisd.net>; Mutschler, Carolyn <mutschlerc@lisd.net>; Treadway, David <TREADWAYD@lisd.net> **Subject:** IAQ - Air Test Results - The Colony HS -Field House Weight Room

Justin...

On Wednesday 5/1, Ensolum LLC Air tested the Field House Weight Room. 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 the Field House Weight Room, was **152.3%** of the outdoor levels. Utilizing this theory, the indoor concentrations were above the acceptable guidelines for areas with filtered air or air conditioning. **The Aspergillus/Penicillium was exceptionally high. The East Zone Facility Services will put the Air Scrubber Machine and 2 Dehumidifiers in the Weight Room today, for a week. We will retest the Weight Room in the middle of June.** If you have any questions, please call me.

Thanks, Paul

Paul Siddall

Maintenance Energy Auditor (IAQ)

Facility Services

Lewisville ISD

340 Lake Haven Rd

Lewisville, TX 75057



July 10, 2019

Lewisville Independent School District 340 Lake Haven Lewisville, Texas 75057 Attn: Mr. David Treadway

Re:

Limited Mold Assessment RETEST The Colony High School – Weight Room 4301 Blair Oaks Dr. The Colony, Texas Ensolum Project No. 01A.1288.022A

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services within Room 112 (Weight Room) of The Colony High School located at 4301 Blair Oaks Drive in The Colony, 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,

< to A

Tod L. McLellan, MAC Mold Assessment License: MAC1361 Exp. Date: 03/08/2020

1 Ede

Darren G. Bowden Principal MAC0321 EXP: 2/15/2020

1.0 INTRODUCTION

Ensolum was retained by Mr. David Treadway, LISD, to complete a Limited Mold Assessment of Room 112 (Weight Room) within The Colony High School addressed at 4301 Blair Oaks Drive, The Colony, Texas. The purpose of this investigation was to determine if elevated concentrations of airborne fungal spores and structures were present within the above-referenced area.

Mr. Tod McLellan completed the on-site investigation on July 1, 2019. The Limited Mold Assessment was performed in response to a complaint of possible indoor air quality issues within the Weight Room.

2.0 PROCEDURE

Ensolum visually inspected accessible areas of the office. No visible water damage or odors were observed in the following locations:

	VISIBLE W	ATER DAMAGE
LOCATION	DATE	EXPLAINATION
Room 112 (Weight Room)	07-01-2019	N/A

It is possible that water-damaged building materials are present within the adjacent areas but were not reasonably accessible due to access limitations.

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 a GE Protimeter BLD5364 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 a Vaisala HM40 Humidity and Temperature Meter. Measurements recorded during the investigation are listed in the chart below:

TEMPERA	ATURE, REL	ATIVE HUMIDITY	& SPECIFIC HU	IMIDITY
LOCATION	DATE	Temperature: F	Relative Humidity	Specific Humidity
Room 112 (Weight Room)	07-01-2019	78.2°	41.9%	60.22
Outdoor	07-01-2019	93.7°	38.1%	90.63
Outdoor	07-01-2019	97.0°	36.1%	95.12

Area air samples were collected with Allergenco-D 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 of time (75 liters) at a height of approximately five (5) feet above finished floor (AFF). Outdoor air samples were collected for a five (5) minute period of time (75 liters) at a height of approximately five (5) feet above finished floor (AFF). Outdoor air samples were collected for a five (5) minute period of time (75 liters) at a height of approximately five (5) feet above for time (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 TR	AP LOCATIONS
SAMPLE NUMBER	LOCATION
275826 (ST – 1)	Room 112 (Weight Room)
275833 (ST – 2)	Outdoor
275838 (ST – 3)	Outdoor

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 in the room were considerably lower and were qualitatively similar to those measured outside of the building at the time the sampling was performed.

4.0 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 this day. Normal cleaning and upkeep should be regularly maintained to ensure that indoor air quality remains within recommended guidelines.

APPENDIX A

ANALYTICAL DATA

Moody Labs

IAQ Mold Report

Summary

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

Lab Job No.: 19F-08099

Report Date : 07/03/2019

Sample Date: 07/01/2019

Spore Trap Type: Allergenco D

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

Client : Ensolum, LLC **Project :** LISD - The Colony HS 01A1288022 Project # :

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Page 1 of 2

1:07 PM

On 7/1/2019, three (3) samples were submitted by Tod McLellan of Ensolum, LLC (located at 2351 W. Northwest Hwy Suite #1203, Dallas, TX 75220) 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			ntration ibic meter
275826	75	Weight Room	Basidiospores Cladosporium Aspergillus / Penicillium Myxomycete / Rust / Smut Cercospora / Pseudocercospora Ascospores	Total:	493 147 93 27 13 13 786	63% 19% 12% 3% 2% 2%
275833	75	Outdoor * See Analytical Notes report for further details	Basidiospores Cladosporium Ascospores Cercospora / Pseudocercospora Coprinus group Myxomycete / Rust / Smut Alternaria Fusarium Drechslera / Bipolaris group Aspergillus / Penicillium Agaricales group Fusicladium Torula Ganoderma Hyphal / Spore Fragments - Dematiaceous Curvularia Pyricularia	Total:	10400 1631 906 413 213 147 147 80 53 53 53 53 53 40 40 27 13 13 13 13 13	73% 11% 6% 3% 1% 1% <1% <1% <1% <1% <1% <1% <1% <1%

Moody Labs

IAQ Mold Report

Summary

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

Page 2 of 2

SMLMS v13.19

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

Client : Ensolum, LLC **Project :** LISD - The Colony HS Project # : 01A1288022 Sample Type: Spore Trap, Non-cultured

Lab Job No.: 19F-08099 **Report Date :** 07/03/2019 1:07 PM Sample Date: 07/01/2019 Spore Trap Type: Allergenco D

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

On 7/1/2019, three (3) samples were submitted by Tod McLellan of Ensolum, LLC (located at 2351 W. Northwest Hwy Suite #1203, Dallas, TX 75220) 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	1	ntration
275838	75	Outdoor * See Analytical Notes report for further details	Basidiospores Ascospores Cladosporium Cercospora / Pseudocercospora Coprinus group Myxomycete / Rust / Smut Alternaria Aspergillus / Penicillium Fusicladium Agaricales group Drechslera / Bipolaris group	10900 1253 986 227 200 187 93 67 40 40 27	77% 9% 7% 2% 1% <1% <1% <1% <1%
			Pithomyces Pyricularia Fusarium Epicoccum Curvularia Helicomyces Oidium Peronospora	27 27 27 13 13 13 13 13 13	<1% <1% <1% <1% <1% <1% <1%
Damila any as to			Tota		100%
the results contained hereit Moody Labs assumes no n	n. Interpretatio esponsibility fo	n should be made by a qualified professional.	samples tested. This report does not express or imply interpret or handled prior to being received at this laboratory. Moody l pretations of this data.		
Analyst(s): Kyle Lab Director : He	e Thiele eather Lop	ez A	pproved Signatory :	Roja	
Lab Director : Br	uce Crabl	A Thank you for choosing	pproved Signatory : Bune Cur		41 MS v13 10

IAQ Mold Report

Data Detail

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

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

Client : Ensolum, LLC

Moody Labs

Project :LISD - The Colony HSProject # :01A1288022

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No. : 19F-08099 Report Date : 07/03/2019 1:07 PM

Sample Date: 07/01/2019

Spore Trap Type: Allergenco D

This report consists of three sections: a summa	ry section, a data detail section, and an analy	ytical notes section. Results may not be reported except in full.

Sample ID:			275					2758					275		
Location:			Weight	t Room				Outo					Outo		
Media Expires On:			Apr :	2020				Apr 2					Apr 2		
Notes Included:							5	See Analyt		tes		5	See Analyt		tes
Volume:	<u> </u>		-	5				7					7	_	
	raw ct.	RL	spores/m ³	%total	spores/m ³ SF		_					_			
Agaricales group	<u> </u>						13	53	<1%	50		13	40		40
Alternaria			and a second sec				13	147	1%	150		13	93		90
Ascospores	1	13	19	2%	10	68	13	906	6%	910		13	1253	9%	1300
Aspergillus / Penicillium	7	13	93	12%	90		13	53	<1%	50		13	67	<1%	70
Basidiospores	37	13	493	63%	490	104	100	10400	73%	10000	109		10900	77%	11000
Cercospora / Pseudocercospora	1	13	13	2%	10	31	13	413		410	17	13	227	2%	230
Chaetomium														in a frank i Na frank i	
Cladosporium	11	13	147	19%	150	106	15	1631	11%	1600	74	·	986	7%	990
Coprinus group						16	13	213	1%	210	15	13	200	1%	200
Curvularia					Galdelsky (Helle)	1	13	13	<1%	10	1	13	13		10
Drechslera / Bipolaris group			a tana arawa a sa ana ana ana ana ana ana ana ana a			4	13	53	<1%	50	2	13	27	<1%	30
Epicoccum								Sequentia		0760 A 149 Ag	1	13	13	<1%	10
Fusarium						6	13	80	<1%	80		13	27	<1%	30
Fusicladium						3	13	40	<1%	40	3	13	40	<1%	40
Ganoderma				a 691.851 Di Modellari		2	13	27	<1%	30					
Helicomyces			20,946,400	De stadist							1	13	aspende 13	<1%	10
Hyphal / Spore Fragments - Dematiace						1	13	13	<1%	10				Sec. 1999	
Hyphal / Spore Fragments - Hyaline															
Memnoniella										Alter of the second sec					
Myxomycete / Rust / Smut	2	13	27	3%	30	11	13	147	1%	150	14	13	187	1%	190
Oidium									Settle (op)		1	13	13		
Peronospora								alandon ongerlar Vienten og som				13	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	<1%	
Pithomyces									1.00			13			
Pyricularia						1	13	13	<1%	10	2	13	27	<1%	30 30
Stachybotrys															
Torula						3	13	40	<1%	40					
TOTALS	59		786	100%	790	376		1.1.1. management	100%	14000	354			100%	14000
Analyst			Kyle	Thiele				Kyle ⁻	Thiele					Thiele	
Analysis Date			7/2/	2019				7/2/2	2019				7/2/2	2019	
Debris Rating				2				Ę	5					5	
Debris Composition															
Fibers			1	/5				1.	/5					/5	
Inorganic/Other			2	2/5				5,	/5		<u> </u>			/5	
Insect Parts			C)/5				0,	/5					/5	
Pollen			C)/5					/5					/5	
Skin/Dander				/5				1	/5				1	/5	

Moody Labs

IAQ Mold Report

Data Detail

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

1:07 PM

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

Client : Ensolum, LLC

Project : LISD - The Colony HS

Project # : 01A1288022

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

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.

End of Data Detail section 19F-08099

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Lab Job No.: 19F-08099

Report Date : 07/03/2019

Sample Date: 07/01/2019

Spore Trap Type: Allergenco D

	IAQ Mold Re	eport
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2051 Valley Vi	ew Lane	AIHA EMPAT ID: 102577
Farmers Branc	h, TX 75234 Phone: (972) 241-8460	
Client :	Ensolum, LLC	Lab Job No.: 19F-08099
Project :	LISD - The Colony HS	Report Date: 07/03/2019 1:07 PM
Project # :	01A1288022	Sample Date : 07/01/2019
Sample Type:	Spore Trap, Non-cultured	Spore Trap Type: Allergenco D
Test Method:	Mold: ASTM D7391-17e1 - Standard Profile	Page 1 of 3
This report consists	s of three sections; a summary section, a data detail section, and an analyt	ical notes section. Results may not be reported except in full.
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Samples Ana	alyzed	nit for Basidiospores is 100 spores / cubic meter. ed results, not raw numbers. rium is 15 spores / cubic meter. When comparing
Samples Ana Sample No	alyzed 275833 : Outdoor 40% Occluded. Please note: the minimum detection lim When comparing results to other samples, use calculate Please note: the minimum detection limit for Cladospor	nit for Basidiospores is 100 spores / cubic meter. ed results, not raw numbers. rium is 15 spores / cubic meter. When comparing

Field Blanks

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

NOTE: All remaining samples suitable for analysis.

SMLMS v13.19

IAQ Mold Report

Moody Labs

Analytical Notes

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC

Project : LISD - The Colony HS Project #: 01A1288022

Project #: 01A1288022

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No. : 19F-08099 Report Date : 07/03/2019 1:07 PM

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

Sample Date : 07/01/2019

Spore Trap Type: Allergenco D

Page 2 of 3

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: ASTM D7391-17e1: Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction Sample by Optical Microscopy.

Samples are read at 100% 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.

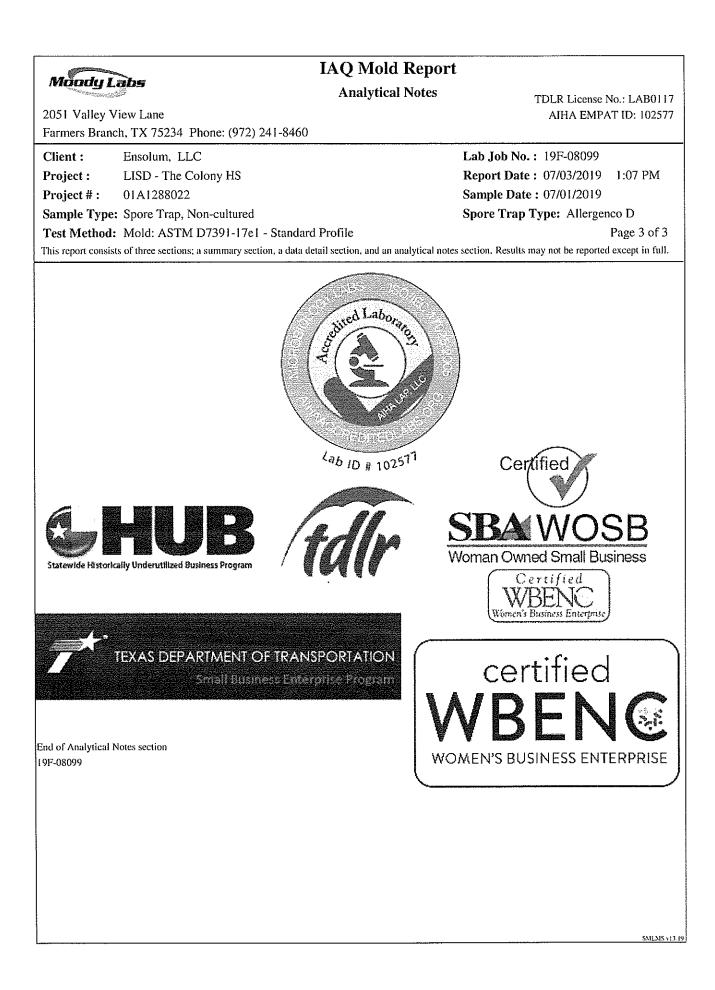
Moody Labs recommends two significant figures for calculated values based on ASTM D7391-17e1.

This report must not be used by the customer to claim product certification, approval, or endorsement by AIHA, 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.



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					IA	IAQ Mold Report	Report					
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Farmers Bi	anch, TX 7523	Farmers Branch, TX 75234 Phone: (972) 241-8460	241-8460									
Client :	Ensolum, LLC	LLC						Lab	Lab Job No.	19F-08099		
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Project: LISD - The Colony HS

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Please call in advance for in ASBESTOS PLM	nmediate, after-hour, & v	weekend pricing & availability. Page of
Bulk Immediate I 1 day 2 day	y 🔲 3 day 🛄 5 day	MOLD Direct Exam Immed 1 day 2 day 5 day Standard Air Immed 1 day 2 day 5 day Standard Air Immed 1 day 2 day 5 day
PCM Air (7400) Immediate 1 day 2 da Anaiyze Blanks Yes		Expanded Air Immed 1 day 2 day 5 day Culture** 10-14 days Analyze Blanks Yes No
TOTAL DUST(0500/0600)	Ý	**Turnaround of Culture Samples subject to Culture Growth** BACTERIA** Colony Counts (CC)
ASBESTOS TEM Air AHERA Method 🗍 Late Night* 🗌 6 hr Air 7402 (Modified) 🗍 1 day 🗍 2 day Bulk 🗍 1 day 🗍 2 day		CC + Gram Stain Collform & E. coli (P/A) Legionella 14 days
Water/Wipe/Micro Vac 1 day 2 day Analyze Blanks Yes No		OTHER:
*Late night analysis surcharges apply		# of Samples:3
Billing Company / City: Ensolu	· · · · · · · · · · · · · · · · · · ·	
Submitter's Company:	LC.	Sample Date: 07.01, 19
Submitter's Name: Tod McLellan	MAC1361	Project #: 01 A 12 88 012
Project: LISD - The Colony HS		Phone #: 682-225-3050

Mobile #:

ح

Fax #:

contact Information: Name: Tod_McLellan E-mail Results to: Jcolson@ensolum.com & Tmclellan@ensolum.com

Invoice Address: 2351 W. Northwest Hwy, Suite 1203, Dallas, TX P.O. #: __ *Please review paperwork and samples before submitting to lab. Unsealed / Improperty packaged / damaged / expired samples or excessive administrative requests may incur additional fees Notes:

Sample #	Sample Desc	ription	Vol. / Area (if applicable)	Location / Notes
275824	Weight Room		756	
275833	Worft Room Ontdoor	· · · · · · · · · · · · · · · · · · ·	1	
275838	Dutdon			
ļ	· · · · · · · · · · · · · · · · · · ·			
·				
Released E	3v-Sm-	Date / Time: 07.01 / 1441	Received By	1 Date / Time: 2: UN
Released E	34.	Date / Time:	Received By	y: Dade / Time:

Moody Labs + 2051 Valley View Ln. + Farmers Branch, TX 75234 + Phone (972) 241-8460 + Fax (972) 241-8461 www.moodylabs.com Q-00134s-2018

APPENDIX B

DEFINITIONS AND LIMITATIONS



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.

EENSOLUM

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.



DATE: May 14, 2019

TO: Justin Gilbreath, Assistant Principal

SUBJECT: IAQ - Air Test Results - The Colony HS -Field House Weight Room

On Wednesday 5/1, Ensolum LLC Air tested the Field House Weight Room. 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 the Field House Weight Room, was **152.3%** of the outdoor levels. Utilizing this theory, the indoor concentrations were above the acceptable guidelines for areas with filtered air or air conditioning. **The Aspergillus/Penicillium was exceptionally high. The East Zone Facility Services will put the Air Scrubber Machine and 2 Dehumidifiers in the Weight Room today, for a week. We will retest the Weight Room in the middle of June.** If you have any questions, please call me. Thanks,

Paul

Paul Siddall Maintenance Energy Auditor (IAQ) Facility Services Lewisville ISD 340 Lake Haven Rd Lewisville, TX 75057



May 15, 2019

Lewisville Independent School District 340 Lake Haven Lewisville, Texas 75057 Attn: Mr. Paul Siddall

Re:

Limited Mold Assessment The Colony High School – Weight Room 4301 Blair Oaks Drive The Colony, Texas Ensolum Project No. 01A.1288.007

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services within the Football Weight Room of The Colony High School located at 4301 Blair Oaks Drive in The Colony, 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,

Nalan Famain

Nolan Domain Mold Assessment Consultant MAC1479 EXP: 11/9/2019

Do A Forte

Darren G. Bowden Principal MAC0321 EXP: 2/15/20

1.0 INTRODUCTION

Ensolum was retained by Mr. Paul Siddall, LISD, to complete a Limited Mold Assessment of the Football Weight Room addressed at 4301 Blair Oaks Drive, The Colony, Texas. The purpose of this investigation was to determine if elevated concentrations of airborne fungal spores and structures were present within the above-referenced office.

Mr. Nolan Domain completed the on-site investigation on May 1, 2019. The Limited Mold Assessment was performed in response to a complaint of possible indoor air quality issues within the classroom.

2.0 PROCEDURE

	VISIBLE W	ATER DAMAGE
LOCATION	DATE	EXPLAINATION
Football Weight Room	5-1-2019	N/A

Ensolum visually inspected accessible areas of the office. No visible water damage or odors were observed in the following locations:

It is possible that water-damaged building materials are present within the adjacent areas but were not reasonably accessible due to access limitations.

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 a GE Protimeter BLD5364 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 a Vaisala HM40 Humidity and Temperature Meter. Measurements recorded during the investigation are listed in the chart below:

TEMPERA	TURE, REL	ATIVE HUMIDITY	& SPECIFIC HU	JMIDITY
LOCATION	DATE	Temperature: F	Relative Humidity	Specific Humidity
Football Weight Room	5-1-2019	54.5°	64.5%	40.0

Area air samples were collected with Allergenco-D 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 of time (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 of time (75 liters) at a height of approximately five (5) minutes period of time (75 liters) at a height of approximately five (5) minutes period of time (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 TR/	AP LOCATIONS
SAMPLE NUMBER	LOCATION
1	Football Weight Room
2	Outdoor North Center By Tennis Courts
3	Outdoor South Side East

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 in the room were elevated. The indoor sample collected yielded twenty seven (27) counts of Stachybotrys, twenty seven (27) counts of Drechslera / Bipolaris group and thirteen (13) counts of Alternaria that was not identified in the exterior samples. The Indoor air sample reported Aspergillus / Penicillium at 10,300 counts while the outdoor samples reported 307 counts.

4.0 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 elevated.

APPENDIX A

ANALYTICAL DATA

Moody Labs

IAQ Mold Report

Summary

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC

Project : LISD - Central ES Room 523

01A.1288.023 Project # :

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No. : 19F-05242 Report Date : 05/06/2019 11:26 AM Sample Date: 05/03/2019

Spore Trap Type: Allergenco D

Page 1 of 2

On 5/3/2019, three (3) samples were submitted by Nolan Domain of Ensolum, LLC (located at 2351 W. Northwest Hwy Suite #1203, Dallas, TX 75220) 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			ntration
1	75	Room 523 * See Analytical Notes report for further details	Basidiospores Aspergillus / Penicillium Ascospores Cladosporium Drechslera / Bipolaris group Hyphal / Spore Fragments - Dematiaceous Myxomycete / Rust / Smut Coprinus group Curvularia	otal:	1471 147 80 53 40 27 27 13 13 13	79% 8% 4% 3% 2% 1% 1% <1% <1%
2	75	Outside Southwest Exit by Gym * See Analytical Notes report for further details	Basidiospores Ascospores Coprinus group Cladosporium Aspergillus / Penicillium Diatrypaceae Agaricales group Drechslera / Bipolaris group Fusarium Cercospora Alternaria		17333 2000 933 187 160 93 80 40 27 13 13	83% 10% 4% <1% <1% <1% <1% <1% <1%
			Т	'otal:	20879	100%

Moody Labs

IAQ Mold Report

Summary

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Client : Ensolum, LLC

Project : LISD - Central ES Room 523

Project # : 01A.1288.023

Sample Type: Spore Trap, Non-cultured

Lab Job No. : 19F-05242

Report Date : 05/06/2019 11:26 AM

Sample Date: 05/03/2019 Spore Trap Type: Allergenco D

Page 2 of 2

On 5/3/2019, three (3) samples were submitted by Nolan Domain of Ensolum, LLC (located at 2351 W. Northwest Hwy Suite #1203, Dallas, TX 75220) 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	Conce spores/cu	ntration
3	75	Outside Front Entry	Basidiospores	29000	89%
		* See Analytical Notes report for	Ascospores	1333	4%
		further details	Cladosporium	613	2%
			Coprinus group	547	2%
			Diatrypaceae	480	1%
			Aspergillus / Penicillium	187	<1%
			Cercospora	80	<1%
			Myxomycete / Rust / Smut	80	<1%
			Agaricales group	67	<1%
			Fusarium	53	<1%
			Hyphal / Spore Fragments - Dematiaceous	13	<1%
			Helicomyces	13	<1%
			Alternaria	13	<1%
			Total:	32479	100%
		II. Data contained in this test report relates only to th n should be made by a qualified professional.	e samples tested. This report does not express or imply interpreta	tion of	
		or the manner in which these samples were collected cations of personnel performing sampling and/or inter	or handled prior to being received at this laboratory. Moody Lat pretations of this data.	s	
Analyst(s): M. G	Garcia		Mathed		
Lab Director : He	eather Lop	bez A	Approved Signatory :	5	
	- 			Al.	

Lab Director : Bruce Crabb

Approved Signatory : Bune Cull

SMLMS v13.10

IAQ Mold Report

Data Detail

2051 Valley View Lane

Moody Labs

Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC

Project : LISD - Central ES Room 523

Project # : 01A.1288.023

Sample Type: Spore Trap, Non-cultured

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

Lab Job No. : 19F-05242 Report Date : 05/06/2019 11:26 AM Sample Date: 05/03/2019 Spore Trap Type: Allergenco D

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

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:			1	1				2	2				3		
Location:			Roon	n 523		Οι	utsid	le Southw	est Exit	by Gym		(Outside Fr	ont En	try
Media Expires On:			Dec	2019				Dec 2	2019				Dec 2	2019	
Notes Included:		S	See Analy	tical No	tes		S	See Analyt	tical No	tes		S	See Analyt	ical No	tes
Volume:			7	5				7	5				75	5	
	raw ct.	RL	spores/m ³	%total	spores/m ³ SF	raw ct.	RL	spores/m ³	%total	spores/m³ SF	raw ct.	RL	spores/m ³	%total	spores/m ³ SF
Agaricales group						6	13	80	<1%	80	5	13	67	<1%	70
Alternaria						1	13	13	<1%	10	1	13	13	<1%	10
Ascospores	6	13	80	4%	80	100	20	2000	10%	2000	100	13	1333	4%	1300
Aspergillus / Penicillium	11	13	147	8%	150	12	13	160	<1%	160	14	13	187	<1%	190
Basidiospores	103	14	1471	79%	1500	130	133	17333	83%	17000	145	200	29000	89%	29000
Cercospora						1	13	13	<1%	10	6	13	80	<1%	80
Chaetomium															
Cladosporium	4	13	53	3%	50	14	13	187	<1%	190	46	13	613	2%	610
Coprinus group	1	13	13	<1%	10	70	13	933	4%	930	41	13	547	2%	550
Curvularia	1	13	13	<1%	10										
Diatrypaceae						7	13	93	<1%	90	36	13	480	1%	480
Drechslera / Bipolaris group	3	13	40	2%	40	3	13	40	<1%	40					
Fusarium						2	13	27	<1%	30	4	13	53	<1%	50
Helicomyces											1	13	13	<1%	10
Hyphal / Spore Fragments - Dematiace	2	13	27	1%	30						1	13	13	<1%	10
Hyphal / Spore Fragments - Hyaline															
Memnoniella															
Myxomycete / Rust / Smut	2	13	27	1%	30						6	13	80	<1%	80
Stachybotrys															
TOTALS	133		1871	100%	1900	346		20879	100%	21000	406		32479	100%	32000
Analyst			M. G	arcia				M. G	arcia				M. Ga	arcia	
Analysis Date			5/6/2	2019				5/6/2	2019				5/6/2	019	
Debris Rating			2	2				2	2				2		
Debris Composition															
Fibers			1/	/5				1/	5				1/	5	
Inorganic/Other			1/	/5				1/	5				1/	5	
Insect Parts			0/	/5				0/	5				0/	5	
Pollen			1/	/5				1/	5				1/	5	
Skin/Dander			1/	/5				1/	5				1/	5	

End of Data Detail section 19F-05242

SMLMS v13.10

-	IAQ Mold	Report
Moody L	Analytical	Notes TDLR License No.: LAB011
2051 Valley V	/iew Lane	AIHA EMPAT ID: 10257
Farmers Bran	ch, TX 75234 Phone: (972) 241-8460	
Client :	Ensolum, LLC	Lab Job No.: 19F-05242
Project :	LISD - Central ES Room 523	Report Date : 05/06/2019 11:26 AM
Project # :	01A.1288.023	Sample Date : 05/03/2019
Sample Type	: Spore Trap, Non-cultured	Spore Trap Type: Allergenco D
Test Method	: Mold: ASTM D7391-17e1 - Standard Profile	Page 1 of 3
This report consis	tts of three sections; a summary section, a data detail section, and an a	nalytical notes section. Results may not be reported except in full.
Samples Ar	alyzed	
Sample No	1 : Room 523	
Notes:	Please note: the minimum detection limit for Basidi results to other samples, use calculated results, not a	ospores is 14 spores / cubic meter. When comparing raw numbers.
Sample No	2 : Outside Southwest Exit by Gym	
Notes:	Please note: the minimum detection limit for Basidi comparing results to other samples, use calculated r Please note: the minimum detection limit for Ascos results to other samples, use calculated results, not	esults, not raw numbers. pores is 20 spores / cubic meter. When comparing
Sample No	3 : Outside Front Entry	
Notes:	Please note: the minimum detection limit for Basidi comparing results to other samples, use calculated r	· ·
Field Blank	S	
No discernab	le field blanks were submitted with this set of samples.	
	I	

IAQ Mold Report

Analytical Notes

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

2051 Valley View Lane

Moody Labs

Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC

Project : LISD - Central ES Room 523

Project # : 01A.1288.023

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No. : 19F-05242 Report Date : 05/06/2019 11:26 AM Sample Date : 05/03/2019

Spore Trap Type: Allergenco D

Page 2 of 3

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: ASTM D7391-17e1: Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction Sample by Optical Microscopy.

Samples are read at 100% 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 D7391-17e1.

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

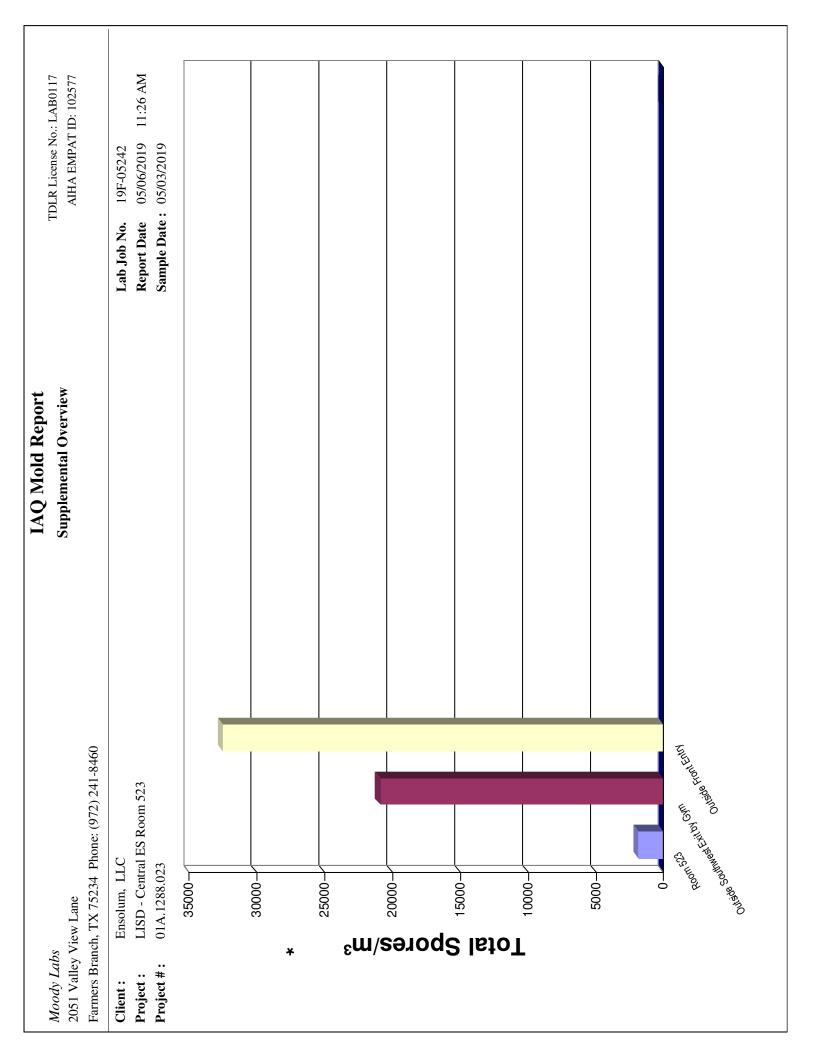
Debris Rating Key

- 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.



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Moody L	Labs								IAQ] Suppler	IAQ Mold Report Supplemental Overview	Repor Dvervie	ŭ t				TDLR License No.: LAB0117	1se No.:	LAB0117	7
2051 Valley View Lane Farmers Branch, TX 752	2051 Valley View Lane Farmers Branch, TX 75234 Phone: (972) 241-8460	34 Phone:	(972) 241	-8460												AIHA EMPAT ID: 102577	MPAT II): 102577	6
Client : Project : Project # :	Ensolum, LLC LISD - Central 01A.1288.023	Ensolum, LLC LISD - Central ES Room 523 01A.1288.023	Room 523					Roc	Room 523					Lab Repc SamJ	Lab Job No. Report Date Sample Date :	19F-05242 05/06/2019 05/03/2019		11:26 AM	I
			Sample	e		Ave	Average R	Reference	ice 1			Average Reference	ge Ref	erence	e 2				
00065																			
30000																			
25000																			
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	quorg səlsərisgA Alternaria	səroqsoosA	muillioinə9 \ zulligaəqsA Basidiospores	Cercospora	muimotesdD	muinoqeobal	Coprinus group	Curvularia Diatrypaceae	Drechslera / Bipolaris group	muiaeru ^a	εουγποσήθΗ	suoəseiteməD - stnəmgərə 97002 \ lehqyH	ənileyH - stnəmgərə Fragments - IshqyH	slləinonməM	tum2 \ fzuß \ 9192ymoxyM	Stachybotrys			
Average Reference 1 = Outside Southwest Exit by Gym	srence 1 = Ou	ıtside Sout	thwest Exi	t by Gym					Avera£	Average Reference 2 = Outside Front Entry	nce 2 = (Outside]	Front En	try					

e1 fipooW	Labs								IA	Q Mo	IAQ Mold Report Sumlemental Overview	port				TDLF	TDLR License No.: LAB0117	No.: LA	B0117	
2051 Valley View Lane Farmers Branch, TX 75	2051 Valley View Lane Farmers Branch, TX 75234 Phone: (972) 241-8460	34 Phone	e: (972) 2	41-846(~				2							AI	AIHA EMPAT ID: 102577	AT ID: 1	102577	
Client : Project : Project # :	Ensolum, LLC LISD - Central 01A.1288.023	Ensolum, LLC LISD - Central ES Room 523 01A.1288.023	Room 52	23			Out	Outside Southwest Exit by Gym	uthwes	t Exit b	oy Gym			L K X	Lab Job No. Report Date Sample Date :		19F-05242 05/06/2019 05/03/2019		11:26 AM	
			Sample	ple		A	verage	Average Reference 1	ence	1		□ Ave	Average Reference	eferei	nce 2					
35000																				
00000																				
15000																				
10000																				
5000																				
						Ĭ			ſ	-	-								-	
	quorg səlisəinggA sinsennətlA	Ascospores	muillioin99 \ zullig19qzA	Basidiospores	Grcospora Chaetomium	muinorsens	Coprinus group	Curvularia	Diatrypaceae	Drechslera / Bipolaris group	muinsun	Helicomyces	Hyphal / Spore Fragments - Dematiaceous Hyphal / Spore Fragments - Hyaline	ɛlləinonməM	tum2 \ fzuf \ 9195ymoxyM	Stachybotrys				
Average Reference 1 = Outside Southwest Exit by Gym	erence 1 = 0	utside Soi	uthwest E	ixit by C	Jym				Aı	verage R	eference	2 = Outs	Average Reference 2 = Outside Front Entry	t Entry						

MoodyLa	Labs								IS	AQ N upplem	IAQ Mold Report Supplemental Overview	keport verviev				Τ	TDLR License No.: LAB0117 AIHA FMPAT ID- 107577	se No.: I IPAT ID	AB0117 . 102577	
2051 Valley View Lane Farmers Branch, TX 75:	2051 Valley View Lane Farmers Branch, TX 75234 Phone: (972) 241-8460	34 Phone	: (972)	241-84	20															
Client :	Ensolum,	, LLC	ŭ F												Lab J	Lab Job No.	19F-05242			
Project # :	LISD - Centra 01A.1288.023	LISD - Central ES Koom 323 01A.1288.023	C moox	52				0	Outside Front Entry	ront Er	ıtry				Kepoi Samp	Keport Date Sample Date :	05/06/2019 05/03/2019		11:26 AM	-
			Sample	aldı			Avera	age Re	Average Reference 1	e 1		Ā	Average Reference	e Refe	rence	2				
25000																				
15000																				
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APPENDIX B

DEFINITIONS AND LIMITATIONS



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.