



April 10, 2023

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

Re: Limited Mold Assessment
Ethridge Elementary School - Rooms A16, A17, Art Room
6001 Ethridge Drive
The Colony, TX 75056
Ensolum Project No. 01A1288187

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services within the Ethridge Elementary School (Rooms A16, A17, and Art Room) located at 6001 Ethridge 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,

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 the Ethridge Elementary School (Rooms A16, A17, and Art Room) located at 6001 Ethridge Drive in 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 areas. Ensolum completed the on-site investigation on April 5, 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 the Rooms A16, A17, and Art Room area. Water damage or odors were observed in the following locations:

VISIBLE WATER DAMAGE		
LOCATION	DATE	EXPLANATION
Classroom A16	4/5/2023	Leaky pipe above ceiling on sink wall 10' x 15' wet sheetrock.

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 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, South	4/5/2023	54°	36%	22%
Exterior, North	4/5/2023	53°	38%	23%
Classroom A16	4/5/2023	66°	51%	48%
Classroom A17	4/5/2023	68°	50%	57%
Art Room	4/5/2023	71°	50%	56%

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 (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
1	Exterior, South
2	Exterior, North
3	Classroom A16
4	Classroom A17
5	Art Room

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 rooms were considerably lower and were qualitatively similar to those measured outside of the building at the time the sampling was performed. Total fungal spore concentration within the investigation area ranged from 626 to 1,519 counts/m³, while the exterior level ranged from 3,631 to 4,053 counts/m³. However, specific types of mold was identified in higher concentrations inside the rooms as compared to the exterior of the building.

Room A16 - Two (2) types of mold spores were reported at higher concentrations inside the classroom as compared to the exterior of the building. *Stachybotrys* and *Curvularia* was reported as 13 spores/m³ while no spores were identified in the exterior samples.

Room A17 - Two (2) types of mold spores were reported at higher concentrations inside the classroom as compared to the exterior of the building. *Aspergillus/Penicillium* was reported as 760 spores/m³ while exterior concentrations were reported at 467 spores/m³. *Epicoccum* was reported as 13 spores/m³ while no spores were identified in the exterior samples.

Art Room - Two (2) types of mold spores were reported at higher concentrations inside the classroom as compared to the exterior of the building. *Stachybotrys* 13 spores/m³ and *Curvularia* was reported as 13 spores/m³ while no spores were identified in the exterior samples.

CONCLUSIONS

Ensolum recommends that the wall containing elevated moisture reading be removed. In addition, the rooms should be cleaned and addition testing performed.

APPENDIX A

ANALYTICAL RESULTS



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 :** Ethridge ES, Classrooms A16, A17 & Art Room**Project # :** 01A 1288187**Sample Type:** Spore Trap, Non-cultured**Test Method:** Mold: MLQ - 0112 - Standard Profile**Lab Job No. :** 23F-03972**Report Date :** 04/05/2023**Sample Date:** 04/05/2023**Spore Trap Type:** Zefon - Air-O-Cell

Page 1 of 4

On 4/5/2023, five (5) 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
1	75	Exterior, South * See Analytical Notes report for further details	Cladosporium Aspergillus / Penicillium Hyphal / Spore Fragments - Dematiaceous Alternaria Myxomycete / Periconia / Rust / Smut Basidiospores Ascospores Hyphal / Spore Fragments - Hyaline Cercospora / Pseudocercospora Coprinus group Torula Drechslera / Bipolaris / Helminthosporium / Exserohilum group Total:	2057 57% 440 12% 307 8% 280 8% 160 4% 107 3% 107 3% 80 2% 40 1% 27 <1% 13 <1% 13 <1% 3631 100%



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**Lab Job No. :** 23F-03972**Project :** Ethridge ES, Classrooms A16, A17 & Art Room**Report Date :** 04/05/2023**Project # :** 01A 1288187**Sample Date:** 04/05/2023**Sample Type:** Spore Trap, Non-cultured**Spore Trap Type:** Zefon - Air-O-Cell**Test Method:** Mold: MLQ - 0112 - Standard Profile

Page 2 of 4

On 4/5/2023, five (5) 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
2	75	Exterior, North * See Analytical Notes report for further details	Cladosporium Aspergillus / Penicillium Hyphal / Spore Fragments - Dematiaceous Alternaria Basidiospores Myxomycete / Periconia / Rust / Smut Ascospores Coprinus group Hyphal / Spore Fragments - Hyaline Chaetomium Fusarium Cercospora / Pseudocercospora Torula Total:	2080 51% 467 12% 440 11% 280 7% 227 6% 173 4% 147 4% 93 2% 53 1% 40 <1% 27 <1% 13 <1% 13 <1% 4053 100%
3	75	Classroom A16	Aspergillus / Penicillium Cladosporium Basidiospores Hyphal / Spore Fragments - Dematiaceous Myxomycete / Periconia / Rust / Smut Stachybotrys Drechslera / Bipolaris / Helminthosporium / Exserohilum group Curvularia Chaetomium Ascospores Alternaria Total:	427 47% 227 25% 80 9% 67 7% 27 3% 13 1% 13 1% 13 1% 13 1% 13 1% 13 1% 906 100%



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 :** Ethridge ES, Classrooms A16, A17 & Art Room**Project # :** 01A 1288187**Sample Type:** Spore Trap, Non-cultured**Test Method:** Mold: MLQ - 0112 - Standard Profile**Lab Job No. :** 23F-03972**Report Date :** 04/05/2023**Sample Date:** 04/05/2023**Spore Trap Type:** Zefon - Air-O-Cell

Page 3 of 4

On 4/5/2023, five (5) 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
4	75	Classroom A17	Aspergillus / Penicillium Cladosporium Basidiospores Hyphal / Spore Fragments - Dematiaceous Alternaria Myxomycete / Periconia / Rust / Smut Epicoccum Curvularia Chaetomium Total:	760 50% 253 17% 160 11% 147 10% 120 8% 40 3% 13 <1% 13 <1% 13 <1% 1519 100%
5	75	Art Room	Cladosporium Aspergillus / Penicillium Hyphal / Spore Fragments - Dematiaceous Alternaria Basidiospores Drechslera / Bipolaris / Helminthosporum / Exserohilum group Ascospores Myxomycete / Periconia / Rust / Smut Stachybotrys Curvularia Chaetomium Total:	160 26% 160 26% 107 17% 53 8% 40 6% 27 4% 27 4% 13 2% 13 2% 13 2% 13 2% 626 100%



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**Lab Job No. :** 23F-03972**Project :** Ethridge ES, Classrooms A16, A17 & Art Room**Report Date :** 04/05/2023**Project # :** 01A 1288187**Sample Date:** 04/05/2023**Sample Type:** Spore Trap, Non-cultured**Spore Trap Type:** Zefon - Air-O-Cell**Test Method:** Mold: MLQ - 0112 - Standard Profile

Page 4 of 4

On 4/5/2023, five (5) 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

This report shall not be reproduced except in full, without approval of the laboratory. Data contained in this test report relates only to the samples tested. This report does not express or imply interpretation of the results contained herein. Interpretation should be made by a qualified professional. Moody Labs assumes no responsibility for the manner in which these samples were collected or handled prior to being received at this laboratory. Volume, area, and/or weight is provided by the customer. Moody Labs assumes no responsibility for the qualifications of personnel performing sampling and/or interpretations of this data.

Analyst(s): Ashe Udie

Lab Director : Heather Lopez

Approved Signatory :

Lab Director : Bruce Crabb

Approved Signatory :

End of Summary section (23F-03972)

Thank you for choosing Moody Labs

SMLMS v13.73



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
Project : Ethridge ES, Classrooms A16, A17 & Art Room
Project # : 01A 1288187
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-03972
Report Date : 04/05/2023
Sample Date: 04/05/2023 Page 1 of 2
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:	1					2					3				
Location:	Exterior, South					Exterior, North					Classroom A16				
Media Expires On:	Jan 2024					Jan 2024					Jan 2024				
Notes Included:	See Analytical Notes					See Analytical Notes									
Volume:	75					75					75				
	Raw Ct	RL	spores/m ³	%Total	spores/m ² SF	Raw Ct	RL	spores/m ³	%Total	spores/m ² SF	Raw Ct	RL	spores/m ³	%Total	spores/m ² SF
Alternaria	21	13	280	8%	280	21	13	280	7%	280	1	13	13	1%	10
Ascospores	8	13	107	3%	100	11	13	147	4%	150	1	13	13	1%	10
Aspergillus / Penicillium	33	13	440	12%	440	35	13	467	12%	470	32	13	427	47%	430
Basidiospores	8	13	107	3%	100	17	13	227	6%	230	6	13	80	9%	80
Cercospora / Pseudocercospora	3	13	40	1%	40	1	13	13	<1%	10					
Chaetomium						3	13	40	<1%	40	1	13	13	1%	10
Cladosporium	108	19	2057	57%	2100	104	20	2080	51%	2100	17	13	227	25%	230
Coprinus group	2	13	27	<1%	30	7	13	93	2%	90					
Curvularia											1	13	13	1%	10
Drechslera / Bipolaris / Helminthosporium /	1	13	13	<1%	10						1	13	13	1%	10
Epicoecum															
Fusarium						2	13	27	<1%	30					
Hyphal / Spore Fragments - Dematiaceou	23	13	307	8%	310	33	13	440	11%	440	5	13	67	7%	70
Hyphal / Spore Fragments - Hyaline	6	13	80	2%	80	4	13	53	1%	50					
Myxomycete / Periconia / Rust / Smut	12	13	160	4%	160	13	13	173	4%	170	2	13	27	3%	30
Stachybotrys											1	13	13	1%	10
Torula	1	13	13	<1%	10	1	13	13	<1%	10					
TOTALS	226		3631	100%	3600	252		4053	100%	4100	68		906	100%	910
Analyst	Ashe Udie					Ashe Udie					Ashe Udie				
Analysis Date	4/5/2023					4/5/2023					4/5/2023				
Debris Rating	3					3					4				
Debris Composition															
Fibers	2/5					1/5					3/5				
Inorganic/Other	3/5					3/5					2/5				
Insect Parts	0/5					0/5					0/5				
Pollen	1/5					2/5					2/5				
Skin/Dander	1/5					1/5					4/5				



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**Project :** Ethridge ES, Classrooms A16, A17 & Art Room**Project # :** 01A 1288187**Sample Type:** Spore Trap, Non-cultured**Test Method:** Mold: MLQ - 0112 - Standard Profile**Lab Job No. :** 23F-03972**Report Date :** 04/05/2023**Sample Date:** 04/05/2023 Page 2 of 2**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:	4					5								
Location:	Classroom A17					Art Room								
Media Expires On:	Jan 2024					Jan 2024								
Notes Included:														
Volume:	75					75								
	Raw Ct	RL	spores/m ³	%Total	spores/m ² SF	Raw Ct	RL	spores/m ³	%Total	spores/m ² SF				
Alternaria	9	13	120	8%	120	4	13	53	8%	50				
Ascospores						2	13	27	4%	30				
Aspergillus / Penicillium	57	13	760	50%	760	12	13	160	26%	160				
Basidiospores	12	13	160	11%	160	3	13	40	6%	40				
Cercospora / Pseudocercospora														
Chaetomium	1	13	13	<1%	10	1	13	13	2%	10				
Cladosporium	19	13	253	17%	250	12	13	160	26%	160				
Coprinus group														
Curvularia	1	13	13	<1%	10	1	13	13	2%	10				
Drechslera / Bipolaris / Helminthosporium /						2	13	27	4%	30				
Epicoccum	1	13	13	<1%	10									
Fusarium														
Hyphal / Spore Fragments - Dematiaceou	11	13	147	10%	150	8	13	107	17%	100				
Hyphal / Spore Fragments - Hyaline														
Myxomycete / Periconia / Rust / Smut	3	13	40	3%	40	1	13	13	2%	10				
Stachybotrys						1	13	13	2%	10				
Torula														
TOTALS	114		1519	100%	1500	47		626	100%	630				
Analyst	Ashe Udle					Ashe Udle								
Analysis Date	4/5/2023					4/5/2023								
Debris Rating	4					3								
Debris Composition														
Fibers	3/5					2/5								
Inorganic/Other	2/5					2/5								
Insect Parts	0/5					0/5								
Pollen	1/5					1/5								
Skin/Dander	4/5					3/5								

End of Data Detail section

23F-03972

SMLMS v13.73



IAQ Mold Report

Analytical Notes

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client : Ensolum, LLC

Lab Job No. : 23F-03972

Project : Ethridge ES, Classrooms A16, A17 & Art Room

Report Date : 04/05/2023

Project # : 01A 1288187

Sample Date : 04/05/2023

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: MLQ - 0112 - Standard Profile

Page 1 of 2

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 1 : Exterior, South

Notes: Please note: the minimum reporting limit for Cladosporium is 19 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Sample No 2 : Exterior, North

Notes: Please note: the minimum reporting limit for Cladosporium is 20 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.

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, 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

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client : Ensolum, LLC

Project : Ethridge ES, Classrooms A16, A17 & Art Room

Project # : 01A 1288187

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: MLQ - 0112 - Standard Profile

Lab Job No. : 23F-03972

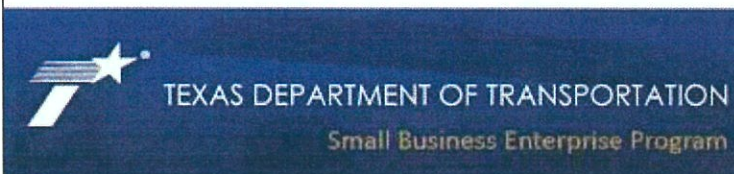
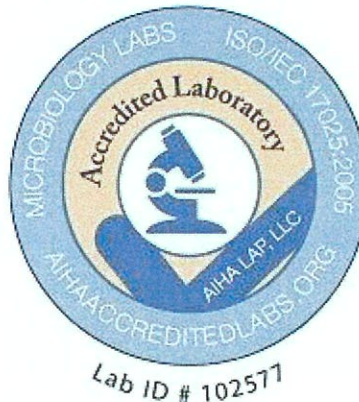
Report Date : 04/05/2023

Sample Date : 04/05/2023

Spore Trap Type: Zefon - Air-O-Cell

Page 2 of 2

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 Analytical Notes section
23F-03972

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

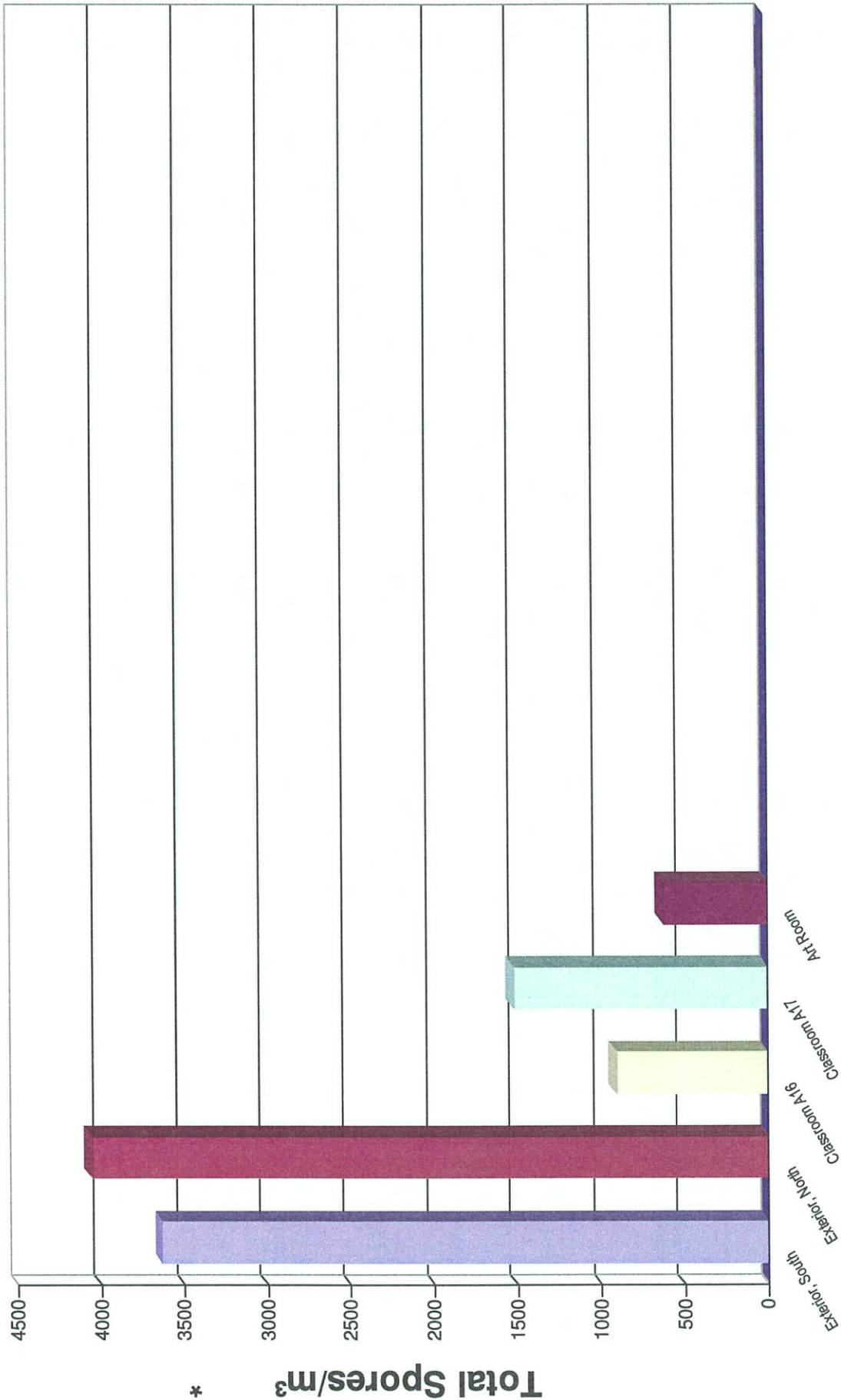
IAQ Mold Report

Supplemental Overview

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

Lab Job No. 23F-03972
Report Date 04/05/2023
Sample Date: 04/05/2023

Client : Ensolum, LLC
Project : Ethridge ES, Classrooms A16, A17 & Art Room
Project #: 01A 1288187



IAQ Mold Report

Supplemental Overview



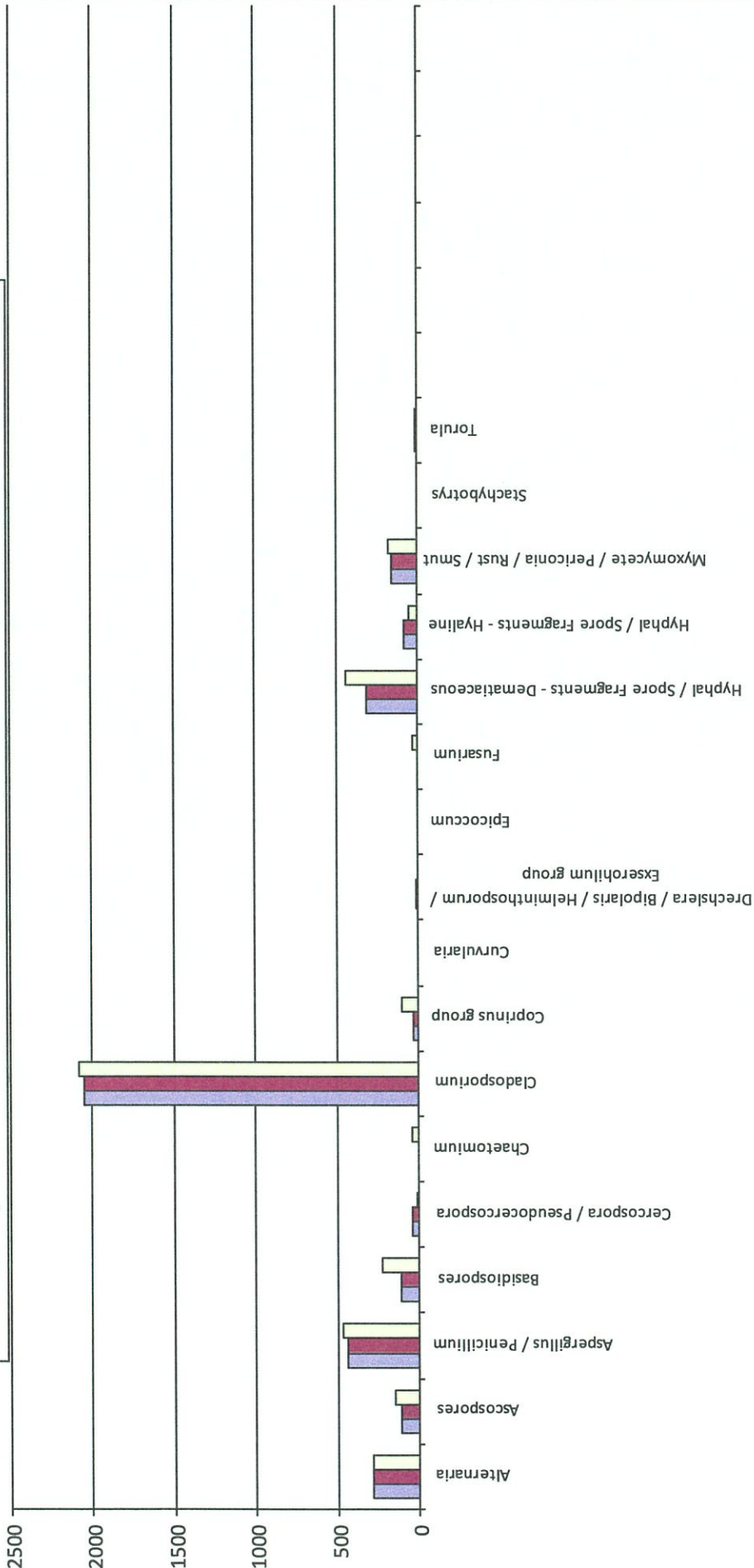
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : Ethridge ES, Classrooms A16, A17 & Art Room
Project # : 01A 1288187

Lab Job No. 23F-03972
Report Date 04/05/2023
Sample Date : 04/05/2023

Exterior, South



Average Reference 1 = Exterior, South

Average Reference 2 = Exterior, North

IAQ Mold Report

Supplemental Overview



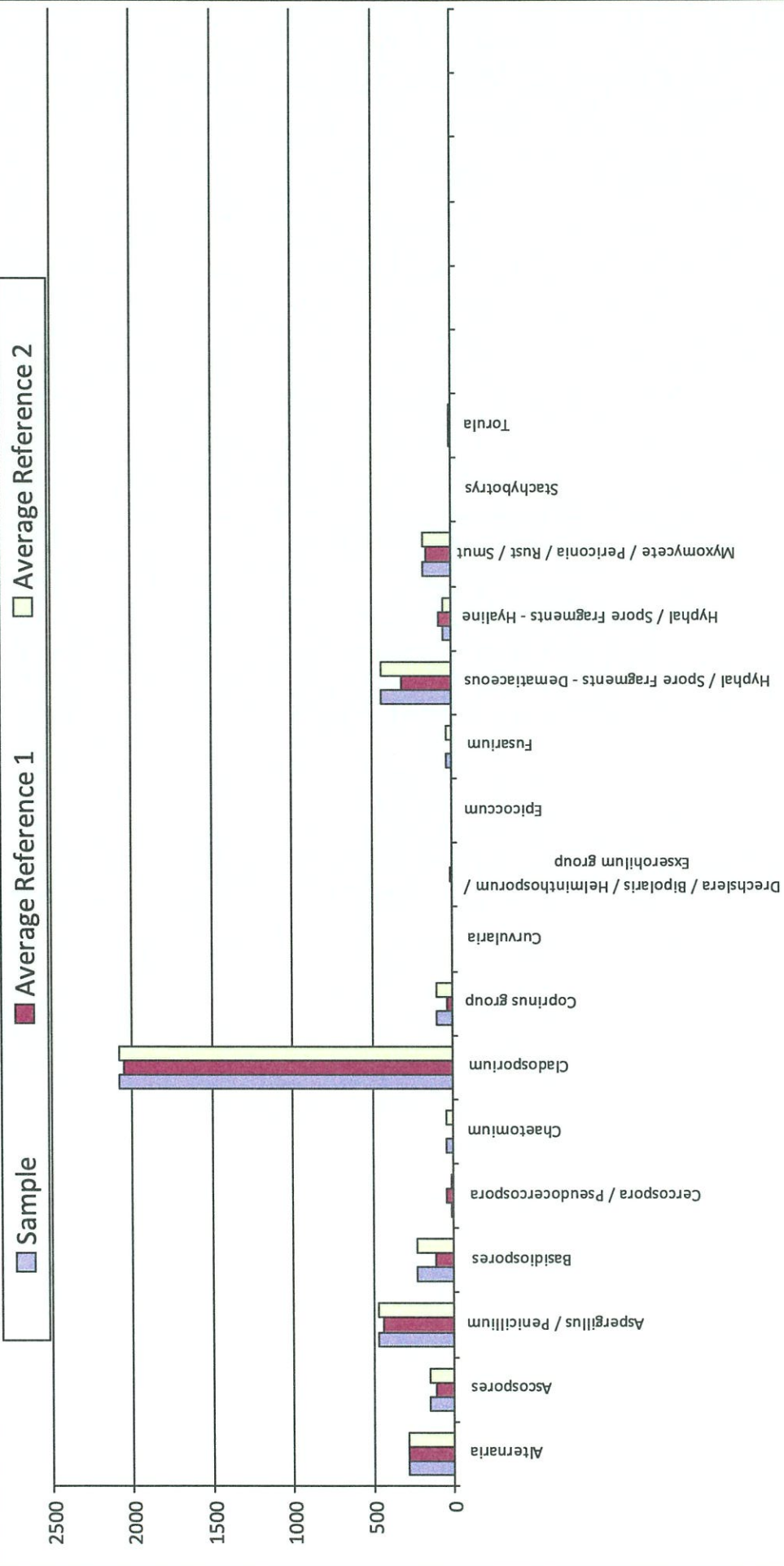
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : Ethridge ES, Classrooms A16, A17 & Art Room
Project #: 01A 1288187

Exterior, North

Lab Job No. 23F-03972
Report Date 04/05/2023
Sample Date : 04/05/2023



Average Reference 1 = Exterior, South

Average Reference 2 = Exterior, North

IAQ Mold Report

Supplemental Overview

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577



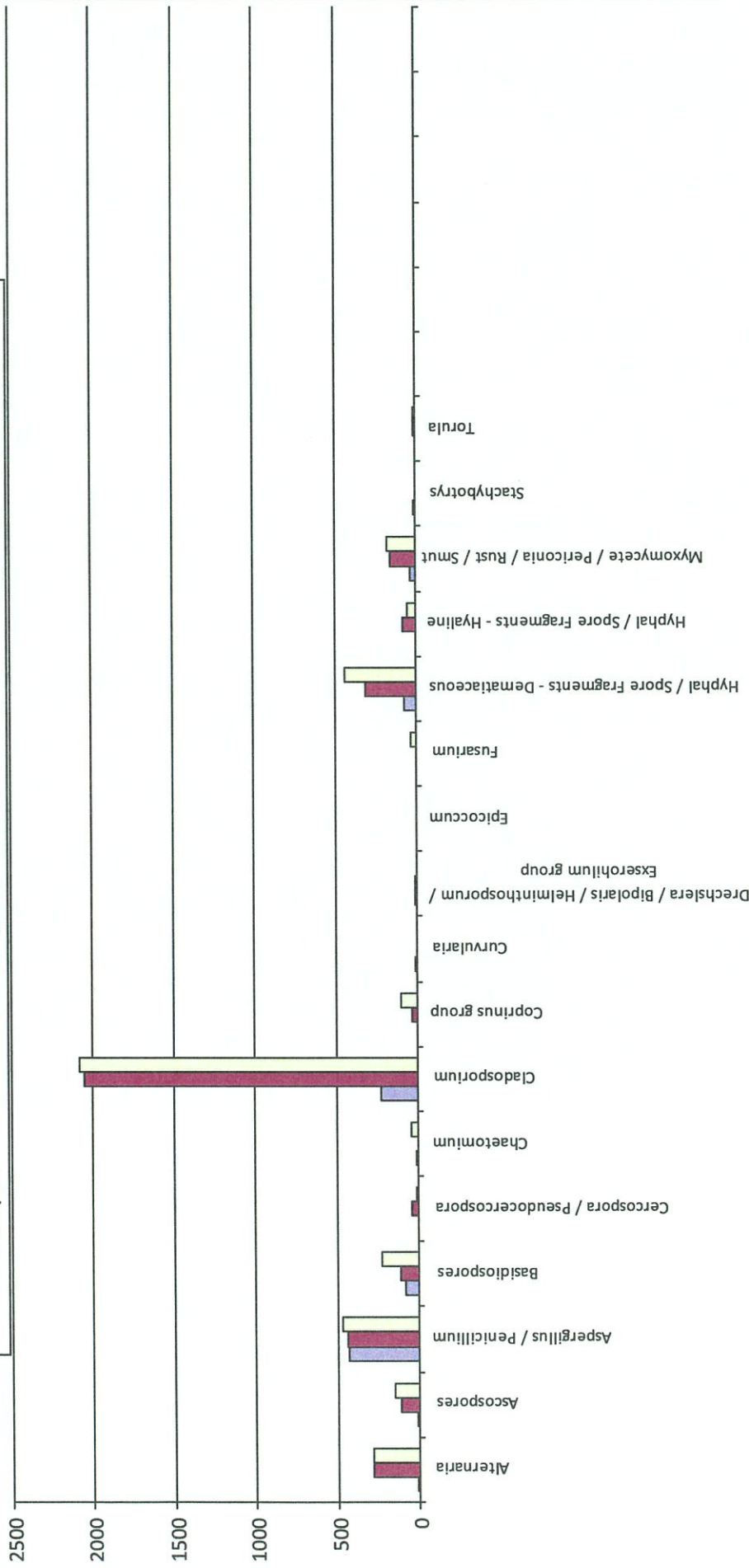
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC
Project : Ethridge ES, Classrooms A16, A17 & Art Room
Project # : 01A 1288187

Lab Job No. 23F-03972
Report Date 04/05/2023
Sample Date : 04/05/2023

Classroom A16

■ Sample
■ Average Reference 1
■ Average Reference 2



Average Reference 1 = Exterior, South

Average Reference 2 = Exterior, North

IAQ Mold Report

Supplemental Overview

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577



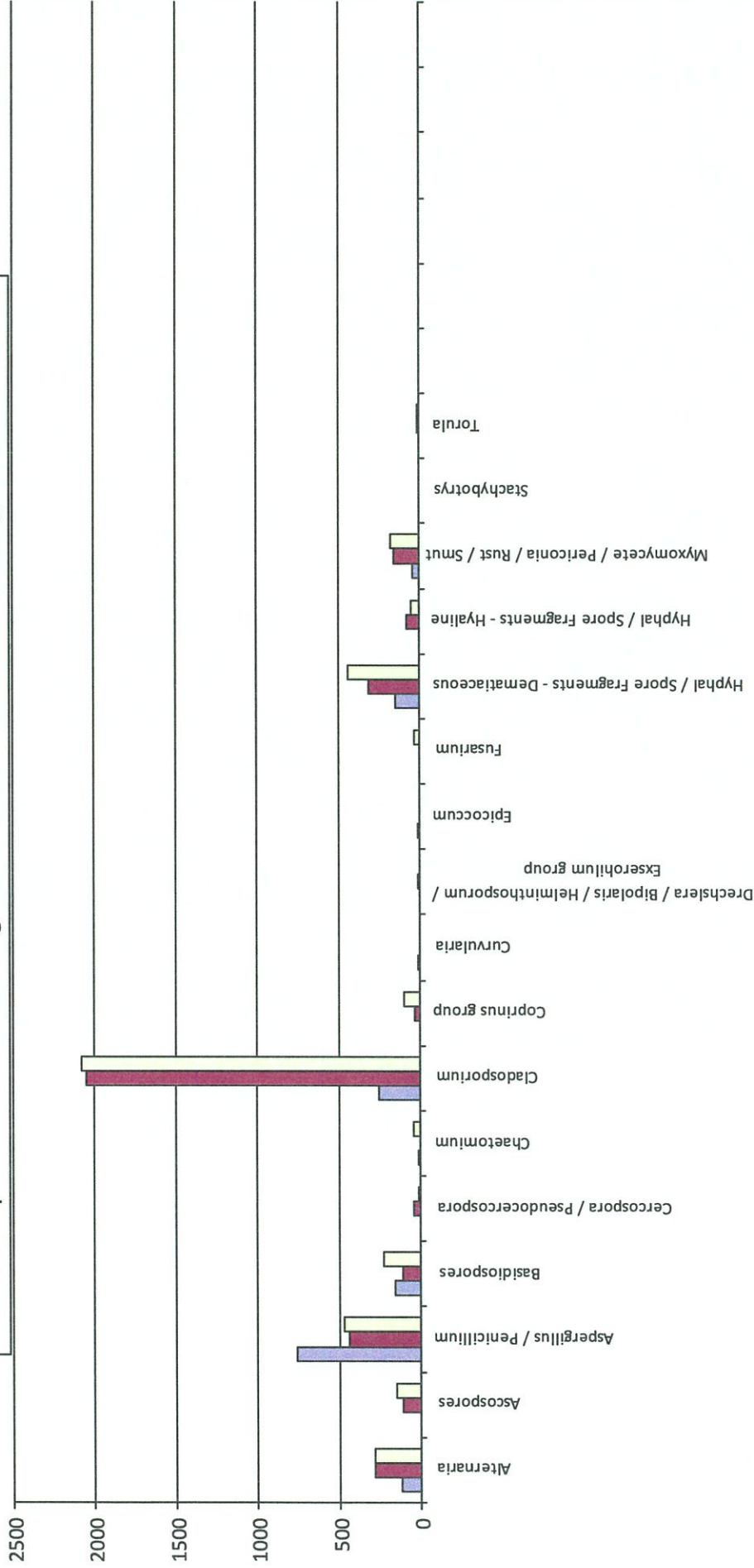
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC
Project : Ethridge ES, Classrooms A16, A17 & Art Room
Project # : 01A 1288187

Lab Job No. 23F-03972
Report Date 04/05/2023
Sample Date : 04/05/2023

Classroom A17

■ Sample
■ Average Reference 1
■ Average Reference 2



Average Reference 1 = Exterior, South

Average Reference 2 = Exterior, North

IAQ Mold Report

Supplemental Overview

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

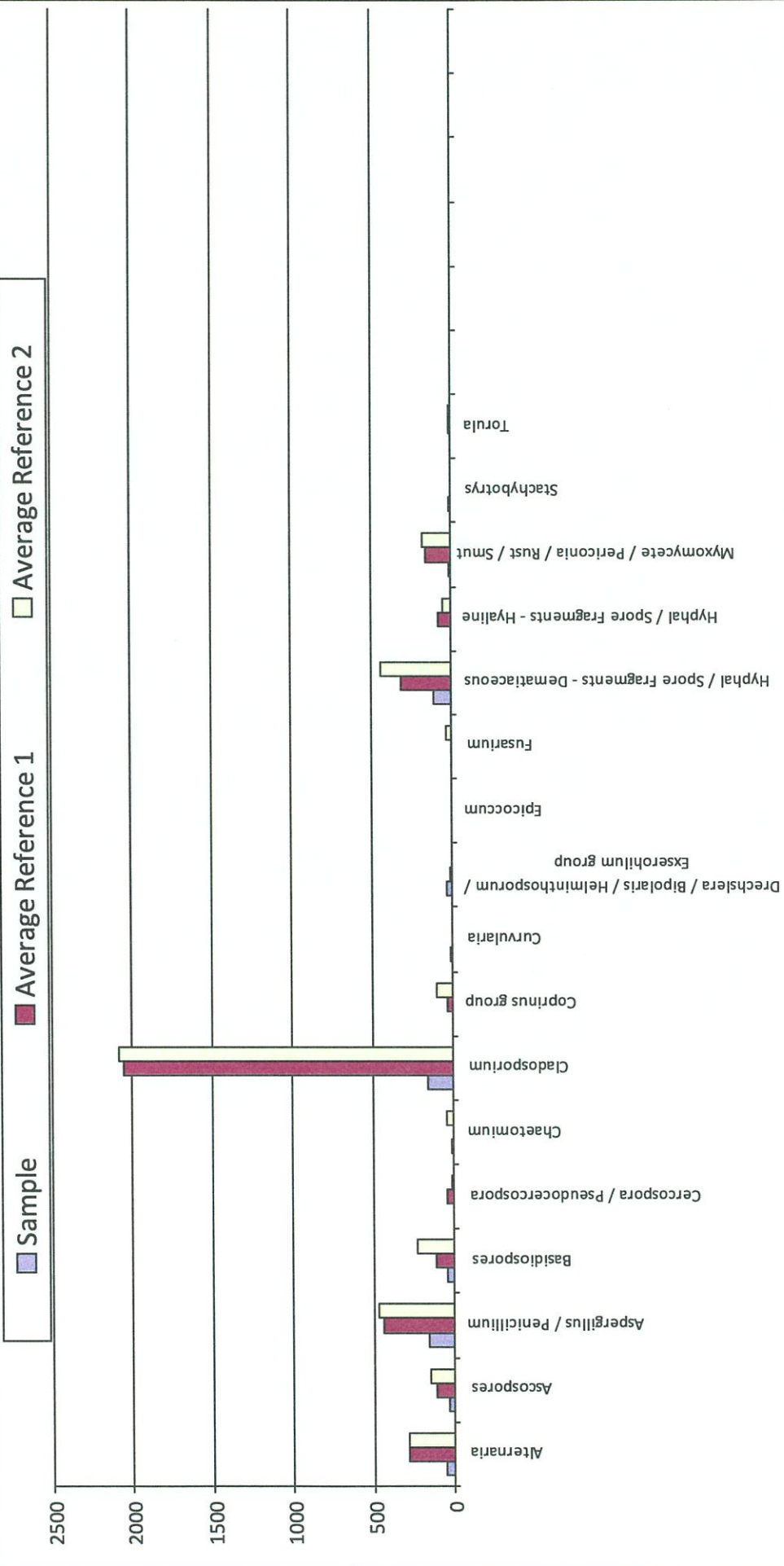


2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC
Project : Ethridge ES, Classrooms A16, A17 & Art Room
Project # : 01A 1288187

Lab Job No. 23F-03972
Report Date 04/05/2023
Sample Date : 04/05/2023

Art Room



Average Reference 1 = Exterior, South

Average Reference 2 = Exterior, North



Chain of Custody

Lab Job #	23F-03972
Lab Job #	STD-AOC-5
Lab Job #	

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

Page 1 of 1

ASBESTOS PLM

Bulk ☐ Immediate ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 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
Culture** ☐ 10-14 days
TPC w/ Yeast & Mold (TYMC)** ☐ 5 day
Analyze Blanks ☐ Yes ☐ No

BACTERIA**

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

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

OTHER:

Billing Company / City: Enzolium, LLC Dallas # of Samples: 5 Sample Date: 4/15/2023
Project: Ethridge ES, Classrooms A16, A17 + Art Room Project #: 01A1288187
Contact Information: Name: Clint Jech Phone #:
E-mail Results to: Clint/Barran/Toni: Martin Mobile #: (972) 989-1081
Invoice Address: tmartin@enzolium.com 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
1	Exterior, South	75	T= 54 ° H= 36 % SH= 22 %
2	Exterior, North	75	T= 53 ° H= 38 % SH= 22 %
3	Classroom A16	75	T= 66 ° H= 51 % SH= 48 % M= 11.22 % See Note:
4	Classroom A17	75	T= 68 ° H= 50 % SH= 57 % M= 10.12 % Note: Visible Dust on Return Air Vent of Supply Vent
5	ART Room	75	T= 71 ° H= 50 % SH= 56 % M= 9.13 % Note: A16 Leaking Pipe Above Ceiling on Sink Wall 10X15 Not Able to see track

Released By: <u>[Signature]</u>	Date / Time: <u>4/15/2023 1030</u>	Received By: <u>[Signature]</u>	Date / Time: <u>4/15/23 1013 AM</u>
Released By:	Date / Time:	Received By:	Date / Time:

APPENDIX B

DEFINITIONS AND LIMITATIONS



ENSOLUM

Mold Services Definitions & Limitations

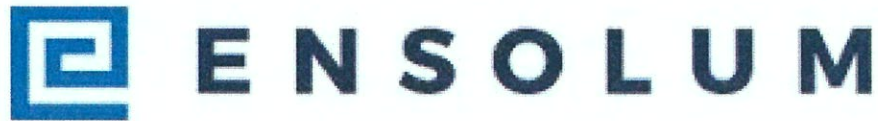
Ensolum performed services in accordance with generally accepted practices of the profession undertaken in similar services at the same time and in the same geographical area. No other warranties, express or implied, apply to the services hereunder or the final report.

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 C

LICENSES/CERTIFICATIONS



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

Rick Figueroa
Chair

Thomas F. Butler
Vice Chair



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 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



Rick Figueroa
Chair

Thomas F. Butler
Vice Chair

Gerald R. Callas, M.D., F.A.S.A.

Helen Callier

Nora Castañeda

Joel Garza

Gary F. Wesson, D.D.S., M.S.

Mold Analysis Laboratory

MOODY LABS LLC

2051 VALLEY VIEW LN FARMERS BRANCH

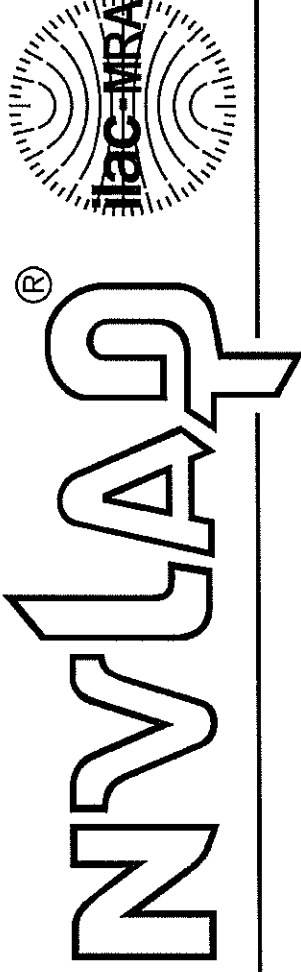
License Number: LAB0117

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

License Expires: March 01, 2024

Mike Arismendez, Jr.
Executive Director

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 102056-0

Moody Labs, LLC
Farmers Branch, TX

is accredited by the *National Voluntary Laboratory Accreditation Program* for specific services,
listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2022-07-01 through 2023-06-30

Effective Dates



A handwritten signature in black ink, appearing to read "Peter S. Lamm".

For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Moody Labs, LLC
2051 Valley View Lane
Farmers Branch, TX 75234-8956
Mr. Bruce Crabb
Phone: 972-241-8460 Fax: 972-241-8461
Email: bruce.crabb@moodylabs.com
<http://www.moodylabs.com>

ASBESTOS FIBER ANALYSIS

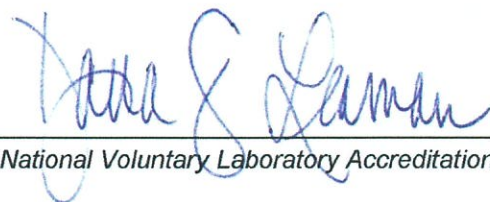
NVLAP LAB CODE 102056-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

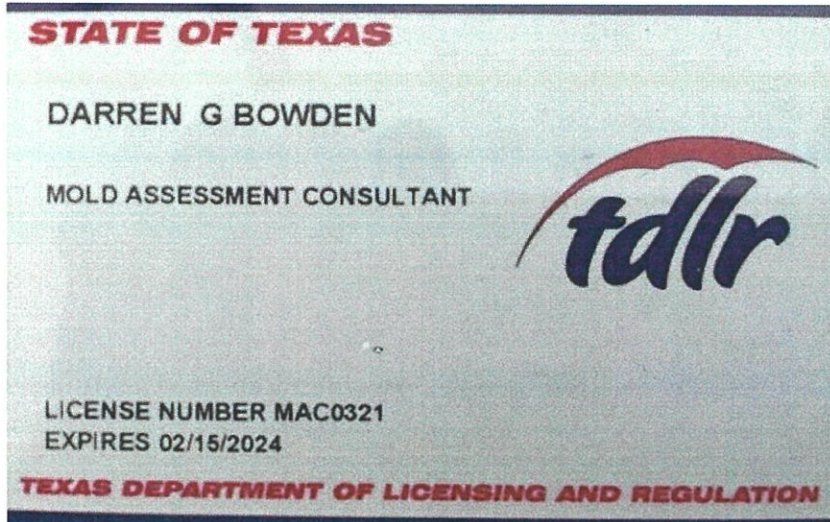
<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.



For the National Voluntary Laboratory Accreditation Program



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





Texas Department of Licensing and Regulation
Mold Assessment Consultant
Clinton S Jech
License No. MAC1444 Expires October 9, 2023

