

2351 W. Northwest Hwy., Suite 3321

Dallas, Texas 75220 Ph: (214) 350-5469

Fax: (214) 350-2914

September 21, 2012

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

Re: Mold Assessment Services - Retest 1

Marcus High School

25 Rooms

5707 Morriss Road Flower Mound, Texas SWG Project No. 0112234A

#### Introduction

Southwest Geoscience (SWG) conducted limited mold assessment activities for the Lewisville Independent School District (Lewisville I.S.D.) within twenty-five (25) rooms at Marcus High School located at 5707 Morriss Road in Flower Mound, Texas (hereinafter referred to as the "Site"). It is SWG's understanding that the request for a mold assessment was triggered by a water intrusion event resulting from a roof leak. The assessment includes the retesting of rooms that were previously determined to contain wet walls or have concentrations of Stachybotrys or Chaetomium identified in the previous assessment. The investigation was limited to areas of the Site identified by Lewisville I.S.D. as described below. The assessment was performed by Mr. Clinton S. Jech a State of Texas licensed Mold Assessment Technician (License No. MAT1075) on September 17 and 18, 2012. SWG's mold services definitions and limitations are included as an attachment to this report.

#### **Investigation Areas**

Lewisville I.S.D. identified the following physical portions of the Site as the target investigation areas ("Investigation Areas") for mold assessment: readily accessible areas within twenty-five (25) rooms. SWG's mold assessment services were limited to the Investigation Area(s) identified by Lewisville, I.S.D. Additional areas or portions of the Site were out-of-scope and not included in SWG's mold assessment or this report at this time.

#### Scope of Work

As set forth in SWG's Mold Assessment Proposal (No. 01121316) dated September 11, 2012, SWG's scope-of-work was to provide visual and/or analytical mold assessment and related services in the Investigation Areas which included:

Visual Reconnaissance: SWG performed a visual reconnaissance of the Investigation Areas for visible indications of moisture intrusion (as indicated by staining or visible moisture) and/or suspect mold growth. SWG's visual reconnaissance only included readily accessible or visible portions of the Investigation Areas.

Suspect Mold Growth Sampling and Analysis: SWG collected limited ambient air samples for nonviable mold spores utilizing Air-O-Cell cassettes. "Air-O-Cell" refers to slit impaction air sampling cassettes manufactured by Zefon Analytical Accessories, St. Petersburg, Florida.

#### Site Reconnaissance Observations/Findings and Recommendations

SWG's Mold Assessment Site reconnaissance was performed on September 17 and 18, 2012 by Mr. Clinton S. Jech. SWG's visual reconnaissance of the Investigation areas revealed the following:



#### Temperature and Relative Humidity

Temperature readings collected inside the building on September 17, 2012 ranged from 74.1 to 77.3 degrees Fahrenheit while relative humidity ranged from 41.4 to 53.1 percent. Temperature readings collected outside the building ranged from 82.5 to 82.9 degrees Fahrenheit while outside relative humidity was ranged from 49.2 to 63.6 percent. Temperature readings collected inside the building on September 18, 2012 ranged from 74.3 to 77.1 degrees Fahrenheit while relative humidity ranged from 40 to 47 percent Temperature readings collected outside the building ranged from 78.4 to 80.6 degrees Fahrenheit while outside relative humidity was ranged from 18.6 to 22.1 percent.

Relative humidity is a measure of the moisture content of air and is closely tied to the comfort of the office/workplace temperature. As with temperature, there are no regulations governing acceptable office/workplace humidity ranges. Humidity levels in the office/work place are not only related to health effects, but also have operational impacts on modern office equipment.

Workplace/office temperatures have historically been considered a subjective factor because the perception of uncomfortable temperature levels is specific to each individual. There are no regulations governing acceptable office/workplace temperature ranges, but significant research has been conducted which indicates that there are temperature ranges that are not only comfortable but also result in optimum performance. ASHRAE (American Society of Heating, Refrigerating & Air Conditioning Engineers) has published guidelines describing thermal environmental conditions that at least 80% of the persons who occupy that environment will find acceptable or "comfortable." Table I below explains the applicable limits and guidelines.

	Table I	
A	cceptable Ranges Of Temperature A	And Humidity
Relative Humidity	Winter Temperatures	Summer Temperatures
30%	68.5 to 76°F	74 to 80°F
40%	68.5 to 75.5°F	73 to 79.5°F
50%	68.5 to 74.5°F	73 to 79°F
60%	68 to 74°F	72.5 to 78°F

SWG utilized a Protimeter Moisture Measurement System (MMS) instrument (Model No. BLD2000) to measure and diagnose dampness of the affected walls. The MMS is a battery powered handheld unit that is equipped with hydrostick probes to measure moisture content in wood, drywall and other and non-conductive materials. The device measures electrical conductivity of building materials and compares the conductivity readings to an internal, electronic standard reading for normal or "dry" materials.

Moisture content readings were obtained by pushing the moisture probe pins into surfaces. The measured values were then displayed on a colored scale depicting if the materials measured were normal (dry), higher than normal but not critical (at risk) or contained excessive moisture levels (wet). Based on the manufacturer's guidelines, the instrument measurement values are described below:

< 5%	Out of Range
> 5% but < 16%	Normal
> 17% but < 20%	Higher than Normal but Not Critical
> 20	Excessive Moisture Levels



Moisture meter readings of the walls collected in the investigation areas are presented in the table below.

Moisture Meter Readings				
Room	Reading			
Principal's Office	12 - 13%			
Principal's Office, Conference Room	12 - 14&			
D110	12 - 15%			
A105	10 - 12%			
A106	12 - 16%			
A108	12 - 14%			
A110	9 - 15%			
B105	11 - 13%			
C104	9 - 14%			
A205	50 - 90%			
A206	12 - 40%			
A209	60 - 90%			
A212	12 - 60%			
A214	16 - 20%			
B207	10 - 15%			
B212	12 - 16%			
B214 Storage	9 - 12%			
A207	18 - 19%			
C207	12 - 14%			
C206	10 - 18%			
C204	18 - 70%			
C203	10 - 14%			
C202	9 - 16%			
C201	9 - 12%			
D202	10 - 14%			

Moisture meter readings collected from walls within in Rooms A205, A206, A209, A212, A214, A207, C206 and C204 were reported as higher than normal or excessive.

#### <u>Air Monitoring Re</u>sults

SWG collected twenty-five (25) samples from the interior of the building and four (4) samples from the exterior of the building. The microbial samples were analyzed by Steve Moody Micro Services, L.L.C. (SMMS) in Farmers Branch, Texas; SMMS is a State of Texas licensed mold analysis laboratory and accredited under the AIHA Laboratory Quality Assurance Program for Environmental Microbiology.

Air testing performed using spore traps found that airborne mold spores in the investigation areas were considerably lower and were qualitatively similar to those measured outside of the building at the time the sampling was performed. On September 17, 2012, total interior fungal spore concentration within the investigation areas ranged from 20 to 6,640 counts/m³ while exterior levels ranged from 20,280 to 23,960 counts/m³. On September 18, 2012, total interior fungal spore concentration within the investigation areas ranged from 520 to 4,840 counts/m³ while exterior levels ranged from 35,600 to 62,400 counts/m³. Molds identified in higher concentrations inside the building as compared to the exterior samples are listed in the table below.



	Molds Identified in Higher Concentration Inside the Building as Compared to the Exterior Samples					
Sample No.	Location	Identification	Indoor Reading counts/m³	Outdoor Reading counts/m³		
4	Principal's Office	Myxomycete/Perconia/ Rust/Smut	900	520		
5	Principal's Conference Room	Curvularia	340	320		
5	Principal's Conference Room	Myxomycete/Perconia/ Rust/Smut	1,500	520		
6	Room D110	Epicoccum	20	None		
6	Room D110	Myxomycete/Perconia/ Rust/Smut	900	520		
9	Room A108	Myxomycete/Perconia/ Rust/Smut	580	520		
12	Room C104	Aspergillus/Penicillium	3,780	1,520		
19	Room B207	Myxomycete/Perconia/ Rust/Smut	680	520		
30	Room C202	Non-Specified Fungal Spore	20	None		
31	Room C201	Pitomyces	20	None		

The table below lists rooms were Stachybotrys and Chaetomium were identified.

	Areas with Concentrations of Stachybotrys and Chaetomium					
Sample No.	Location	Identification	Indoor Reading counts/m³	Outdoor Reading counts/m³		
5	Principal's Conference Room	Stachybotrys	20	None		
9	Room D110	Stachybotrys	20	None		
8	Room A106	Chartomium	20	None		
13	Room A205	Stachybotrys	20	None		
14	Room A206	Chaetomium	60	None		
14	Room A206	Stachybotrys	40	None		
16	Room A209	Stachybotrys	20	None		
17	Room A212	Stachybotrys	60	None		
18	Room A214	Stachybotrys	60	None		
19	Room B207	Stachybotrys	60	None		
21	Room B214	Stachybotrys	40	None		
25	Room A207	Stachybotrys	40	None		
26	Room C207	Stachybotrys	60	None		
28	Room C204	Stachybotrys	80	None		
29	Room C203	Stachybotrys	40	None		
30	Room C202	Chaetomium	20	None		
32	Room D202	Stachybotrys	20	None		

Lewisville Independent School District SWG Project No. 0112234A September 21, 2012 Page 5



The American Conference of Governmental Industrial Hygienists (ACGIH) sets forth assessment criteria related to the "indoor/outdoor" relationship where the indoor air quality should be at or below that of outdoor air quality with regard to fungal spores (see ACGIH Bioaerosols, Assessment and Controls publication, 1999).

#### Suspect Mold

No visible mold was observed during the assessment.

#### Conclusions and Recommendations

SWG recommends that the wet walls be removed. Further investigation should be performed within rooms with wet walls and rooms where concentrations of Stachybotrys and Chaetomium were identified. If you have any questions regarding this report or if we can assist you with any other matter, please contact the undersigned at (214) 350-5469.

Sincerely,

Southwest Geoscience

Darren G. Bowden Corporate Director

Industrial Hygiene Services

Texas Mold Assessment Consultant

Lic. No. MAC0321

Attachments: Analytical Results/Chain of Custody

Mold Services Definitions & Limitations/Standard of Care and Reliance



Analytical Results/Chain of Custody

Steve Moody Micro Services, LLC

2051 Valley View Lane

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No. 12F-11323

Project: Marcus High School, 25 Rooms Report Date 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 1 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
1	75	Exterior, East * See Analytical Notes report for further details	Agaricus / Agrocybe Alternaria Ascospores Aspergillus / Penicillium Basidiospores Cercospora / Pseudocercospora Cladosporium Coprinus Drechslera / Bipolaris group Fusarium Ganoderma Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Nigrospora Spegazzinia  Total:	120 680 280 1440 4760 80 9400 120 40 160 320 2280 520 40 40

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**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 2 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
2	75	Exterior, Southeast	Agaricus / Agrocybe Alternaria Ascospores Aspergillus / Penicillium Basidiospores Cladosporium Coprinus Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Spegazzinia	120 520 440 1520 6240 8600 80 320 640 2440 520 40
3	75	Exterior, Southwest	Total:  Agaricus / Agrocybe Alternaria	21480 160 840
			Ascospores Aspergillus / Penicillium Basidiospores Cladosporium Coprinus Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut	440 840 6880 10600 440 3280 480
			Total:	23960

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**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 3 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
4	150	Principal's Office	Agaricus / Agrocybe Alternaria Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut  Total:	40 20 340 1220 1220 360 80 1020 900
5	150	Principal's Conference Room	Ascospores Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys	60 840 1460 900 340 180 1340 1500 20
			Total:	6640

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Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 4 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
6	150	Room D110 * See Analytical Notes report for further details	Agaricus / Agrocybe Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Epicoccum Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys	40 920 1060 640 140 260 20 760 900 20
7	150	Room A-105	Total:  Aspergillus / Penicillium  Basidiospores  Cladosporium  Curvularia  Drechslera / Bipolaris group  Hyphal / Spore Fragments  Myxomycete / Periconia / Rust / Smut	240 160 220 20 40 280 460
			Total:	1420

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**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 5 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
8	150	Room A-106 * See Analytical Notes report for further details	Agaricus / Agrocybe Alternaria Ascospores Aspergillus / Penicillium Basidiospores Chaetomium Cladosporium Curvularia Drechslera / Bipolaris group Fusarium Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut	100 80 60 720 1240 20 700 120 140 60 780 240
9	150	Room A-108	Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments	4260 240 340 580 100 40 860
			Myxomycete / Periconia / Rust / Smut  Total:	580 2740

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**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 6 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
10	150	Room A-110	Aspergillus / Penicillium Basidiospores Cladosporium Coprinus Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut	620 680 820 20 100 80 560 260
11	150	Room B-105 * See Analytical Notes report for further details	Aspergillus / Penicillium Basidiospores Cercospora / Pseudocercospora Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut	3140 460 440 20 140 60 20 460 220
12	150	Room C-104 * See Analytical Notes report for further details	Total:  Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut  Total:	1820 3780 240 100 80 20 420 220 4860

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Project: Marcus High School, 25 Rooms Report Date 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 7 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
13	150 150	Room A-206 * See Analytical Notes report for further details	Aspergillus / Penicillium Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys  Total:  Agaricus / Agrocybe Alternaria Aspergillus / Penicillium Basidiospores Chaetomium Cladosporium Coprinus Curvularia Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys  Total:	100 20 80 140 20 360 60 20 100 340 60 140 20 40 420 220 40

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Project: Marcus High School, 25 Rooms Report Date 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 8 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
16	150	Room A-209	Alternaria Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys  Total:	20 40 160 240 40 240 180 20
17	150	Room A-212	Agaricus / Agrocybe Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys	80 1340 760 660 20 40 560 100 60
			Total:	3620

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Client: Southwest Geoscience - Dallas, TX Lab Job No. 12F-11323

Project: Marcus High School, 25 Rooms Report Date 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 9 of 10

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
18	150	Room A-214	Alternaria Aspergillus / Penicillium Cladosporium Coprinus Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys	60 40 60 20 180 100 60
10	150	D D. 207	Total:	520
19	150	Room B-207 * See Analytical Notes report for further details	Alternaria Aspergillus / Penicillium Basidiospores Cladosporium Curvularia	80 540 860 240 180
			Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys	100 560 680 60
			Total:	3300
20	150	Room B-212	Aspergillus / Penicillium	20
			Total:	20

Steve Moody Micro Services, LLC Summary

DSHS License No.: LAB0117 2051 Valley View Lane AIHA EMPAT ID: 102577

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

Lab Job No. 12F-11323 **Client:** Southwest Geoscience - Dallas, TX

**Project:** Marcus High School, 25 Rooms **Report Date** 09/20/2012 11:39 AM

Project #: 0112234A **Sample Date:** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - Standard Profile Page 10 of 10

On 9/18/2012, twenty (20) samples were submitted by Clint Jech of Southwest Geoscience - Dallas, TX (located at 2351 W NW Hwy #3321, 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	Concentration spores/cubic meter
21	150	Room B-214	Alternaria	20
21	150	1100111 2 21 1	Aspergillus / Penicillium	1040
			Basidiospores	580
			Cladosporium	260
			Curvularia	60
			Hyphal / Spore Fragments	540
			Myxomycete / Periconia / Rust / Smut	140
			Stachybotrys	40
			Total:	2680

Results may not be reported except in full. 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.

Steve Moody Micro Services assumes no responsibility for the manner in which these samples were collected or handled prior to being received at this laboratory. SMMS assumes no responsibility for the qualifications of personnel performing sampling and/or interpretations of this data.

Analyst(s): Rob Greene

Lab Director: Steve Moody

Approved Signatory:

Thank you for choosing Steve Moody Micro Services

**Data Detail** Steve Moody Micro Services, LLC

DSHS License No.: LAB0117 2051 Valley View Lane AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX **Lab Job No.:** 12F-11323

Project: Marcus High School, 25 Rooms **Report Date :** 09/20/2012 11:39 AM

0112234A **Sample Date:** 09/17/2012 Project #:

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - Standard Profile Page 1 of 6 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			4		
Location:	E	cterior,	East	Exter	Exterior, Southeast			ior, So	uthwest	Prir	ncipal's	Office	
Debris Rating:		5			4			3		4			
Media Expires On:		Jul 201	3		Jul 201	3		Jul 201	3	Jul 2013			
Notes Included?:													
Volume:		75			75			75			150		
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	
Agaricus / Agrocybe	3	40.00	120	3	40.00	120	4	40.00	160	2	20.00	40	
Alternaria	17	40.00	680	13	40.00	520	21	40.00	840	1	20.00	20	
Ascospores	7	40.00	280	11	40.00	440	11	40.00	440				
Aspergillus / Penicillium	36	40.00	1440	38	40.00	1520	21	40.00	840	17	20.00	340	
Basidiospores	119	40.00	4760	156	40.00	6240	172	40.00	6880	61	20.00	1220	
Cercospora / Pseudocercospora	2	40.00	80										
Chaetomium													
Cladosporium	235	40.00	9400	215	40.00	8600	265	40.00	10600	61	20.00	1220	
Coprinus	3	40.00	120	2	40.00	80	11	40.00	440				
Curvularia				8	40.00	320				18	20.00	360	
Drechslera / Bipolaris group	1	40.00	40	16	40.00	640				4	20.00	80	
Epicoccum													
Fusarium	4	40.00	160										
Ganoderma	8	40.00	320										
Hyphal / Spore Fragments	57	40.00	2280	61	40.00	2440	82	40.00	3280	51	20.00	1020	
Memnoniella													
Myxomycete / Periconia / Rust / Smut	13	40.00	520	13	40.00	520	12	40.00	480	45	20.00	900	
Nigrospora	1	40.00	40										
Non-specified Fungal Spore(s)													
Pollen													
Spegazzinia	1	40.00	40	1	40.00	40							
Stachybotrys													
TOTALS	507		20280	537		21480	599		23960	260		5200	
Analyst	F	Rob Gre	ene	F	Rob Greene			Rob Greene			Rob Greene		
Analysis Date		9/20/20	12		9/20/20	12		9/20/20	12		9/20/20	12	

Steve Moody Micro Services, LLC

Data Detail

DSHS License No.: LAB0117

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Project: Marcus High School, 25 Rooms Report Date: 09/20/2012 11:39 AM

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**Test Method:** Mold: ASTM D7391-09 - Standard Profile

Page 2 of 6

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:		5			6			7		8			
Location:	Princip	al's Co Room	nference 1	F	Room D	110	R	oom A-	105	F	Room A-	106	
Debris Rating:		4		5			4			5			
Media Expires On:	Jul 2013				Jul 201	3		Jul 201	3	Jul 2013			
Notes Included?:													
Volume:		150			150			150			150		
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	
Agaricus / Agrocybe				2	20.00	40				5	20.00	100	
Alternaria										4	20.00	80	
Ascospores	3	20.00	60							3	20.00	60	
Aspergillus / Penicillium	42	20.00	840	46	20.00	920	12	20.00	240	36	20.00	720	
Basidiospores	73	20.00	1460	53	20.00	1060	8	20.00	160	62	20.00	1240	
Cercospora / Pseudocercospora													
Chaetomium										1	20.00	20	
Cladosporium	45	20.00	900	32	20.00	640	11	20.00	220	35	20.00	700	
Coprinus													
Curvularia	17	20.00	340	7	20.00	140	1	20.00	20	6	20.00	120	
Drechslera / Bipolaris group	9	20.00	180	13	20.00	260	2	20.00	40	7	20.00	140	
Epicoccum				1	20.00	20							
Fusarium										3	20.00	60	
Ganoderma													
Hyphal / Spore Fragments	67	20.00	1340	38	20.00	760	14	20.00	280	39	20.00	780	
Memnoniella													
Myxomycete / Periconia / Rust / Smut	75	20.00	1500	45	20.00	900	23	20.00	460	12	20.00	240	
Nigrospora													
Non-specified Fungal Spore(s)													
Pollen													
Spegazzinia													
Stachybotrys	1	20.00	20	1	20.00	20							
TOTALS	332		6640	238		4760	71		1420	213		4260	
Analyst	F	ob Gre	ene	P	lob Gre	ene	Rob Greene			Rob Greene			
Analysis Date		9/20/20	12		9/20/20	12		9/20/20	12		9/20/20	12	

DSHS License No.: LAB0117

Steve Moody Micro Services, LLC Data Detail

2051 Valley View Lane AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No.: 12F-11323

Project: Marcus High School, 25 Rooms Report Date: 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile

Page 3 of 6

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:		9	,		10			11		12			
Location:	R	oom A-	108	R	Room A-110			oom B-	105	F	loom C-	104	
Debris Rating:		4			4			5			5		
Media Expires On:		Jul 2013			Jul 201	3		Jul 201	3	Jul 2013			
Notes Included?:													
Volume:		150			150			150		150			
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	
Agaricus / Agrocybe													
Alternaria													
Ascospores													
Aspergillus / Penicillium	12	20.00	240	31	20.00	620	23	20.00	460	189	20.00	3780	
Basidiospores	17	20.00	340	34	20.00	680	22	20.00	440	12	20.00	240	
Cercospora / Pseudocercospora							1	20.00	20				
Chaetomium													
Cladosporium	29	20.00	580	41	20.00	820	7	20.00	140	5	20.00	100	
Coprinus				1	20.00	20							
Curvularia	5	20.00	100	5	20.00	100	3	20.00	60	4	20.00	80	
Drechslera / Bipolaris group	2	20.00	40	4	20.00	80	1	20.00	20	1	20.00	20	
Epicoccum													
Fusarium													
Ganoderma													
Hyphal / Spore Fragments	43	20.00	860	28	20.00	560	23	20.00	460	21	20.00	420	
Memnoniella													
Myxomycete / Periconia / Rust / Smut	29	20.00	580	13	20.00	260	11	20.00	220	11	20.00	220	
Nigrospora													
Non-specified Fungal Spore(s)													
Pollen													
Spegazzinia													
Stachybotrys													
TOTALS	137		2740	157		3140	91		1820	243		4860	
Analyst	F	Rob Gre	ene	F	Rob Greene			Rob Greene			Rob Greene		
Analysis Date		9/20/20	12		9/20/20	12		9/20/20	12		9/20/20	12	

Steve Moody Micro Services, LLC **Data Detail** 

DSHS License No.: LAB0117 AIHA EMPAT ID: 102577 2051 Valley View Lane

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

Client: Southwest Geoscience - Dallas, TX **Lab Job No.:** 12F-11323

Project: Marcus High School, 25 Rooms **Report Date :** 09/20/2012 11:39 AM

0112234A **Sample Date:** 09/17/2012 Project #:

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - Standard Profile Page 4 of 6 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:		13			14			16			17		
Location:	R	oom A-	205	R	oom A-	206	Room A-209			F	Room A-	212	
Debris Rating:		4			5			4			4		
Media Expires On:		Jul 2013			Jul 201	3		Jul 201	3	Jul 2013			
Notes Included?:													
Volume:		150			150			150			150		
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	
Agaricus / Agrocybe				3	20.00	60				4	20.00	80	
Alternaria				1	20.00	20	1	20.00	20				
Ascospores													
Aspergillus / Penicillium	5	20.00	100	5	20.00	100	2	20.00	40	67	20.00	1340	
Basidiospores				17	20.00	340	8	20.00	160	38	20.00	760	
Cercospora / Pseudocercospora													
Chaetomium				3	20.00	60							
Cladosporium				7	20.00	140	12	20.00	240	33	20.00	660	
Coprinus				1	20.00	20							
Curvularia				2	20.00	40	2	20.00	40	1	20.00	20	
Drechslera / Bipolaris group	1	20.00	20							2	20.00	40	
Epicoccum													
Fusarium													
Ganoderma													
Hyphal / Spore Fragments	4	20.00	80	21	20.00	420	12	20.00	240	28	20.00	560	
Memnoniella													
Myxomycete / Periconia / Rust / Smut	7	20.00	140	11	20.00	220	9	20.00	180	5	20.00	100	
Nigrospora													
Non-specified Fungal Spore(s)													
Pollen													
Spegazzinia													
Stachybotrys	1	20.00	20	2	20.00	40	1	20.00	20	3	20.00	60	
TOTALS	18		360	73		1460	47		940	181		3620	
Analyst	F	Rob Gre	ene	P	ob Gree	ene	Rob Greene			Rob Greene			
Analysis Date		9/20/20	12	!	9/20/20	12		9/20/20	12		9/20/20	12	

Steve Moody Micro Services, LLC

2051 Valley View Lane

**Data Detail** 

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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

**Client:** Southwest Geoscience - Dallas, TX

**Lab Job No.:** 12F-11323

**Project:** Marcus High School, 25 Rooms

**Report Date :** 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 5 of 6 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:		18			19			20			21		
Location:	R	oom A-	214	R	Room B-207			oom B-	212	F	Room B-	214	
Debris Rating:		4			5			3			4		
Media Expires On:		Jul 201	13		Jul 2013			Jul 201	3	Jul 2013			
Notes Included?:				See A	nalytica	al Notes							
Volume:		150			150			150			150		
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	
Agaricus / Agrocybe													
Alternaria	3	20.00	60	4	20.00	80				1	20.00	20	
Ascospores													
Aspergillus / Penicillium	2	20.00	40	27	20.00	540	1	20.00	20	52	20.00	1040	
Basidiospores				43	20.00	860				29	20.00	580	
Cercospora / Pseudocercospora													
Chaetomium												1	
Cladosporium	3	20.00	60	12	20.00	240				13	20.00	260	
Coprinus	1	20.00	20										
Curvularia				9	20.00	180				3	20.00	60	
Drechslera / Bipolaris group				5	20.00	100						·	
Epicoccum													
Fusarium												·	
Ganoderma													
Hyphal / Spore Fragments	9	20.00	180	28	20.00	560				27	20.00	540	
Memnoniella												1	
Myxomycete / Periconia / Rust / Smut	5	20.00	100	34	20.00	680				7	20.00	140	
Nigrospora												<u> </u>	
Non-specified Fungal Spore(s)													
Pollen												1	
Spegazzinia													
Stachybotrys	3	20.00	60	3	20.00	60				2	20.00	40	
TOTALS	26		520	165		3300	1		20	134		2680	
Analyst	F	Rob Gre	ene	F	Rob Greene			Rob Greene			Rob Greene		
Analysis Date		9/20/20	12		9/20/20	12		9/20/20	12		9/20/20	12	

Steve Moody Micro Services, LLC

Data Detail

DSHS License No.: LAB0117

2051 Valley View Lane

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No.: 12F-11323

Project: Marcus High School, 25 Rooms Report Date: 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile

Page 6 of 6

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.

#### **Debris Rating Key:**

- 0 No debris detected.
- 1 Trace debris.
- 2 Light debris.
- 3 Moderate debris.
- 4 Substantial debris.
- 5 Extensive debris.
- 6 Field blank.

 $NOTE: Debris \ defined \ as \ skin, \ fibers, \ pollen \ grains, \ insect \ parts, \ and/or \ other \ non-fungal \ particles.$ 

Steve Moody Micro Services, LLC

**Analytical Notes** DSHS License No.: LAB0117 AIHA EMPAT ID: 102577 2051 Valley View Lane

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

**Client: Lab Job No.:** 12F-11323 Southwest Geoscience - Dallas, TX

**Project:** Marcus High School, 25 Rooms **Report Date :** 09/20/2012 11:39 AM

0112234A Project #: **Sample Date:** 09/17/2012

Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - 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, East
Notes:	45% Occluded.
Sample No:	6 : Room D110
Notes:	45% Occluded.
Sample No:	8 : Room A-106
Notes:	40% Occluded.
Sample No:	11 : Room B-105
Notes:	20% Occluded.
Sample No:	12 : Room C-104
Notes:	30% Occluded.
Sample No:	14 : Room A-206
Notes:	20% Occluded.
Sample No:	19 : Room B-207
Notes:	90% Occluded. Due to occlusion on the primary portion of the trace in this sample, higher concentrations of material(s) may be present. The reported "Concentration(s)" are based upon visual

estimates of the fields examined. This condition could lead to under-reporting of "Concentration(s)".

#### Field Blanks

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

#### NOTE: All remaining samples suitable for analysis.

#### Methods

Method: ASTM D7391-09: Categorization and Quantification of Airborne Fungal Structures in an Intertial Impaction Sample by Optical Microscopy.

Calculation: Spores/cubic meter = (Raw spore count)\*(MDL)

Note: MDL (Minimum Detection Limit) is calculated based upon 1 raw spore count.

Steve Moody Micro Services recommends two significant figures for calculated values based ASTM D7391-09.

Steve Moody Micro Services, LLC Analytical Notes DSHS License No.: LAB0117 2051 Valley View Lane AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No.: 12F-11323

Project: Marcus High School, 25 Rooms Report Date: 09/20/2012 11:39 AM

**Project #:** 0112234A **Sample Date :** 09/17/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile 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.



LAB#102577

## Chain of Custody

Page | of 2



Lab Job#_	12F-11323	AOC:20	
Lab Job#_			
Lab Job#_			

Please call in advance for immediate, after-hour, & weekend pricing & availability.\*\*

Aurnaround of Culture Samples subject to Culture Growth\*

ASBESTOS PLM	ASBESTOS TEM	
Bulk ☐1 day ☐2 day ☐3 day ☐5 day ☐Immediate	Air AHERA Method 6 hr Air 7402 (Modified) 1 day	☐12hr ☐24 hr ☐2 day ☐3 day
Analyze All Positive Stop	Air 7402 (Modified) ☐1 day Bulk/Wipe/Micro Vac ☐1 day	2 day 3 day
LEAD Paint / Soil / Wipe 1 day 2 day 3 day 5 day Immediate	Water 1 day	☐2 day ☐3 day
PCM Air (7400)	Analyze Blanks Yes	□No
<u>TOTAL DUST</u> (0500/0600)	BACTERIA	
MOLD	Heterotrophic Plate Count (HPC)	☐3 day
Non-culture (Tape / Bulk (Air)) □1 day 🔀 2 day □Immediate	HPC + Gram Stain	☐3 day ☐5 day
Air Standard Profile Air Expanded Profile	HPC + 3 Gram Neg ID	☐6-8 day
Analyze Blanks Yes No	HPC + 5 Gram Neg ID Fecal Coliform (MPN)	☐6-8 day ☐3 day
Culture (Swab / Bulk / Plate)	Total Coliform & E Coli (P/A)	☐2-3 day
	" of Complex	4.0
Billing Company / City: SWG	# of Samples:	
Submitter/Company: Clinton 5. Jech	Sample Date: 9	117/2012
Project: Marcus High School 25 Rooms	Project #: 011:	L234A
Contact Information: Name: Clint Jeck	Phone #:	
E-mail Results to: Cl:nt/Darren/Veronica	Mobile #: <b>(972</b>	)989-1031
Invoice Address: Veronica	P.O. #:	
— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged samp	oles or excessive administrative requests may inc	ur additional fees—
Notes:		

Vol. / Area Location / Notes Sample Description Sample # if applicable H= 63.6% T= 82.50 Exterior, East 75 Exterior, Southeast 4=50.0% T= 82.90 2 75 H= 49.2% T= 82.9° Exterior, Southwest 3 75 4 H= 41,4% T= 77.3° M= 12-13 Princeipal's office 150 H=44.0% T= 76.8 M= 12-14 Principalis Confirme Room 5 150 H= 57,9% T= 74.8 M= 12-15 6 ROOM DIIG 150 H= 48.0% T= 75.2° M= 10.12 7 Roam A-105 150 H= 52.8% T= 74.8° M= 12-16 Room A-106 150 H=51.3 % T= 74.4° M= 12-14 9 150 Rosm A-108 H=52.0% T=74.4° M= 9-15 10 Room A-110 150 H=51.3% T= 74.4° M= 11-13 Koom B-105 150 11 H=52.1% T=75.7°M=9-14 12 Room 6-104 150 H: 51.5% T= 75.9° M: 50.90 ROOM A-205 150 13 14 Room A-206 156 156 Received By: Released By Date / Time:

Roleased By:

| April | 1457 | White |

## Chain of Custody

Page 2 of 2



Lab Job #	12F-11323	
Lab Job #		
Lab Job #		

Project:			Project #:
Sample #	Sample Description	Vol. / Area if applicable	Location / Notes
16	Room A-209	150	H= 54.3% T= 746°
			M: 60-90 Front Wall
17_	Room A-212	150	H = 52.7 % T= 74.1°
<del></del>			M= 12.60 Front Wall
_18	Room A-214	150	H=53.0% T-74.1°
			M= 16-20 Back Wall
19	Room B- 207	150	H= 53.1% T= 75.2° M= 10-15
20	Room B-212	150	H = 53.0% T= 75.2° M= 12-16
2١	Room B-214	150	H = 52.8% T: 74.90 M= 9-12
		_	
-			
10			

Steve Moody Micro Services, LLC - 2051 Valley View Ln. - Farmers Branch, TX 75234 - Phone (972) 241-8460 / Fax (972) 241-8461 [COCQ-F-0028-2012]

# IAQ Mold Report Summary

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

Steve Moody Micro Services, LLC

2051 Valley View Lane

**Client:** 

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

Southwest Geoscience - Dallas, TX Lab Job No. 12F-11366

Project: Marcus High School, 25 Classrooms Report Date 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 1 of 6

22	Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
		(liters)		Agaricus / Agrocybe Alternaria Ascospores Aspergillus / Penicillium Basidiospores Cercospora / Pseudocercospora Cladosporium Coprinus Curvularia Drechslera / Bipolaris group Fusarium Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut	\$\text{spores/cubic meter}\$  40 1120 4080 4920 15400 120 30240 440 480 320 200 3920 1120

Steve Moody Micro Services, LLC

2051 Valley View Lane

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No. 12F-11366

Project: Marcus High School, 25 Classrooms Report Date 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 2 of 6

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
23	75	Exterior, North	Agaricus / Agrocybe	480
			Alternaria	1400
			Ascospores	3800
			Aspergillus / Penicillium	4200
			Basidiospores	10240
			Cercospora / Pseudocercospora	240
			Cladosporium	18720
			Coprinus	1240
			Curvularia	720
			Drechslera / Bipolaris group	600
			Fusarium	280
			Hyphal / Spore Fragments	3400
			Myxomycete / Periconia / Rust / Smut	1000
			Spegazzinia	40
			Total:	46360
24	75	Exterior, Northwest	Alternaria	320
			Ascospores	960
			Aspergillus / Penicillium	1680
			Basidiospores	9640
			Cladosporium	17000
			Curvularia	320
			Drechslera / Bipolaris group	760
			Fusarium	200
			Ganoderma	240
			Hyphal / Spore Fragments	3560
			Myxomycete / Periconia / Rust / Smut	920
			Total:	35600

Steve Moody Micro Services, LLC

2051 Valley View Lane

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No. 12F-11366

Project: Marcus High School, 25 Classrooms Report Date 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 3 of 6

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
25	150	Room A-207	Agaricus / Agrocybe Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Hyphal / Spore Fragments Stachybotrys	40 300 540 140 140 3640 40
			Total:	4840
26	150	Room C-207 * See Analytical Notes report for further details	Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys  Total:	100 380 320 120 100 300 380 60
27	150	Room C-206	Alternaria Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut	1760 40 300 520 620 100 60 320 80
			Total:	2040

# IAQ Mold Report Summary

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

Steve Moody Micro Services, LLC

2051 Valley View Lane

**Client:** 

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

Southwest Geoscience - Dallas, TX Lab Job No. 12F-11366

Project: Marcus High School, 25 Classrooms Report Date 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 4 of 6

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
28	150	Room C-204	Ascospores Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys	40 280 680 580 220 160 480 240 80
29	150	Room C-203	Total:  Aspergillus / Penicillium Basidiospores Cladosporium Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys	2760 100 280 320 200 240 40
			Total:	1180

Steve Moody Micro Services, LLC

2051 Valley View Lane

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No. 12F-11366

Project: Marcus High School, 25 Classrooms Report Date 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 5 of 6

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
30	150	Room C-202	Alternaria	20
			Ascospores	40
			Aspergillus / Penicillium	40
			Basidiospores	120
			Chaetomium	20
			Cladosporium	280
			Coprinus	20
			Curvularia	60
			Drechslera / Bipolaris group	80
			Hyphal / Spore Fragments	140
			Myxomycete / Periconia / Rust / Smut	40
			Non-specified Fungal Spore(s)	20
			Total:	880
31	150	Room C-201	Alternaria	20
			Aspergillus / Penicillium	80
			Basidiospores	100
			Cladosporium	140
			Curvularia	60
			Drechslera / Bipolaris group	20
			Hyphal / Spore Fragments	60
			Myxomycete / Periconia / Rust / Smut	20
			Pithomyces	20
			Total:	520

Summary

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

Steve Moody Micro Services, LLC

2051 Valley View Lane

**Client:** 

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

Southwest Geoscience - Dallas, TX Lab Job No. 12F-11366

Project: Marcus High School, 25 Classrooms Report Date 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 6 of 6

On 9/19/2012, eleven (11) samples were submitted by Clint Jech of Southwest Geoscience - Dallas, TX (located at 2351 W NW Hwy #3321, 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	Concentration spores/cubic meter
	150	Room D-202	Alternaria	20
			Ascospores	20
			Aspergillus / Penicillium	140
			Basidiospores	80
			Cladosporium	220
			Curvularia	80
			Drechslera / Bipolaris group	80
			Hyphal / Spore Fragments	80
			Myxomycete / Periconia / Rust / Smut	40
			Stachybotrys	20
			Total:	780

Results may not be reported except in full. 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.

Steve Moody Micro Services assumes no responsibility for the manner in which these samples were collected or handled prior to being received at this laboratory. SMMS assumes no responsibility for the qualifications of personnel performing sampling and/or interpretations of this data.

Analyst(s): Rebecca Lutz, Rob Greene

Lab Director: Steve Moody

Approved Signatory:

Thank you for choosing Steve Moody Micro Services

DSHS License No.: LAB0117

Steve Moody Micro Services, LLC Data Detail

2051 Valley View Lane AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No.: 12F-11366

Project: Marcus High School, 25 Classrooms Report Date: 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

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Page 1 of 4

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Sample ID:		22		23			24			25			
Location:	Exte	rior, No	rtheast	Ex	Exterior, North			Exterior, Northwest			Room A-207		
Debris Rating:		4		4			4			4			
Media Expires On:		Jul 201	3		Jul 201	3		Jul 201	3		Jul 201	3	
Notes Included?:													
Volume:		75			75			75			150		
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m <sup>3</sup>	
Agaricus / Agrocybe	1	40.00	40	12	40.00	480				2	20.00	40	
Alternaria	28	40.00	1120	35	40.00	1400	8	40.00	320				
Ascospores	102	40.00	4080	95	40.00	3800	24	40.00	960				
Aspergillus / Penicillium	123	40.00	4920	105	40.00	4200	42	40.00	1680	15	20.00	300	
Basidiospores	385	40.00	15400	256	40.00	10240	241	40.00	9640	27	20.00	540	
Cercospora / Pseudocercospora	3	40.00	120	6	40.00	240							
Chaetomium													
Cladosporium	756	40.00	30240	468	40.00	18720	425	40.00	17000	7	20.00	140	
Coprinus	11	40.00	440	31	40.00	1240							
Curvularia	12	40.00	480	18	40.00	720	8	40.00	320	7	20.00	140	
Drechslera / Bipolaris group	8	40.00	320	15	40.00	600	19	40.00	760				
Fusarium	5	40.00	200	7	40.00	280	5	40.00	200				
Ganoderma							6	40.00	240				
Hyphal / Spore Fragments	98	40.00	3920	85	40.00	3400	89	40.00	3560	182	20.00	3640	
Memnoniella													
Myxomycete / Periconia / Rust / Smut	28	40.00	1120	25	40.00	1000	23	40.00	920				
Non-specified Fungal Spore(s)													
Pithomyces													
Pollen													
Spegazzinia				1	40.00	40							
Stachybotrys										2	20.00	40	
TOTALS	1560		62400	1159		46360	890		35600	242		4840	
Analyst	F	ob Gre	ene	R	lob Gree	ene	Rob Greene			Rob Greene			
Analysis Date		9/20/20	12		9/21/20	12	9/21/2012				9/21/20	12	

Steve Moody Micro Services, LLC

Data Detail

DSHS License No.: LAB0117

2051 Valley View Lane

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No.: 12F-11366

**Project:** Marcus High School, 25 Classrooms **Report Date:** 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile

Page 2 of 4

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:		26		27				28		29			
Location:	R	oom C-	207	R	Room C-206			Room C-204			Room C-203		
Debris Rating:	,	5		4			4			4			
Media Expires On:		Jul 2013			Jul 201	3		Jul 201	3		Jul 201	3	
Notes Included?:													
Volume:		150			150			150			150		
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	
Agaricus / Agrocybe													
Alternaria				2	20.00	40							
Ascospores							2	20.00	40				
Aspergillus / Penicillium	5	20.00	100	15	20.00	300	14	20.00	280	5	20.00	100	
Basidiospores	19	20.00	380	26	20.00	520	34	20.00	680	14	20.00	280	
Cercospora / Pseudocercospora													
Chaetomium													
Cladosporium	16	20.00	320	31	20.00	620	29	20.00	580	16	20.00	320	
Coprinus													
Curvularia	6	20.00	120	5	20.00	100	11	20.00	220				
Drechslera / Bipolaris group	5	20.00	100	3	20.00	60	8	20.00	160				
Fusarium													
Ganoderma													
Hyphal / Spore Fragments	15	20.00	300	16	20.00	320	24	20.00	480	10	20.00	200	
Memnoniella													
Myxomycete / Periconia / Rust / Smut	19	20.00	380	4	20.00	80	12	20.00	240	12	20.00	240	
Non-specified Fungal Spore(s)													
Pithomyces													
Pollen													
Spegazzinia													
Stachybotrys	3	20.00	60				4	20.00	80	2	20.00	40	
TOTALS	88		1760	102		2040	138		2760	59		1180	
Analyst	Rob Greene			P	Rob Greene			Rob Greene			Rob Greene		
Analysis Date	!	9/21/20	12		9/21/20	12	9/21/2012			9/21/2012			

Steve Moody Micro Services, LLC

Data Detail

DSHS License No.: LAB0117

2051 Valley View Lane

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No.: 12F-11366

**Project:** Marcus High School, 25 Classrooms **Report Date:** 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

Sample Type: Spore Trap, Non-cultured Spore Trap Type: Zefon - Air-O-Cell

**Test Method:** Mold: ASTM D7391-09 - Standard Profile

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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:		30		31							
Location:	Room C-202			R	Room C-201			Room D-202			
Debris Rating:		4			4		4				
Media Expires On:		Jul 201	3		Jul 201	3		Jul 201	13		
Notes Included?:											
Volume:		150			150			150			
	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³	raw ct.	MDL	spores/m³		
Agaricus / Agrocybe											
Alternaria	1	20.00	20	1	20.00	20	1	20.00	20		
Ascospores	2	20.00	40				1	20.00	20		
Aspergillus / Penicillium	2	20.00	40	4	20.00	80	7	20.00	140		
Basidiospores	6	20.00	120	5	20.00	100	4	20.00	80		
Cercospora / Pseudocercospora											
Chaetomium	1	20.00	20								
Cladosporium	14	20.00	280	7	20.00	140	11	20.00	220		
Coprinus	1	20.00	20								
Curvularia	3	20.00	60	3	20.00	60	4	20.00	80		
Drechslera / Bipolaris group	4	20.00	80	1	20.00	20	4	20.00	80		
Fusarium											
Ganoderma											
Hyphal / Spore Fragments	7	20.00	140	3	20.00	60	4	20.00	80		
Memnoniella											
Myxomycete / Periconia / Rust / Smut	2	20.00	40	1	20.00	20	2	20.00	40		
Non-specified Fungal Spore(s)	1	20.00	20								
Pithomyces				1	20.00	20					
Pollen											
Spegazzinia											
Stachybotrys							1	20.00	20		
TOTALS	44		880	26		520	39		780		
Analyst	Re	ebecca	Lutz	R	ebecca	Lutz	R	ebecca	Lutz		
Analysis Date		9/21/20	12		9/21/20	12		9/21/20	12		

Steve Moody Micro Services, LLC

Data Detail

DSHS License No.: LAB0117

2051 Valley View Lane

AIHA EMPAT ID: 102577

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

Client: Southwest Geoscience - Dallas, TX Lab Job No.: 12F-11366

Project: Marcus High School, 25 Classrooms Report Date: 09/21/2012 11:33 AM

**Project #:** 0112234A **Sample Date :** 09/18/2012

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Page 4 of 4

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#### **Debris Rating Key:**

- 0 No debris detected.
- 1 Trace debris.
- 2 Light debris.
- 3 Moderate debris.
- 4 Substantial debris.
- 5 Extensive debris.
- 6 Field blank.

 $NOTE: Debris \ defined \ as \ skin, \ fibers, \ pollen \ grains, \ insect \ parts, \ and/or \ other \ non-fungal \ particles.$ 

Steve Moody Micro Services, LLC Analytical Notes DSHS License No.: LAB0117 2051 Valley View Lane AIHA EMPAT ID: 102577

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

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Project: Marcus High School, 25 Classrooms Report Date: 09/21/2012 11:33 AM

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Page 1 of 1

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#### Samples Analyzed

Sample No: 26 : Room C-207 Notes: 25% Occluded.

#### Field Blanks

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

#### NOTE: All remaining samples suitable for analysis.

#### Methods

Method: ASTM D7391-09: Categorization and Quantification of Airborne Fungal Structures in an Intertial Impaction Sample by Optical Microscopy.

Calculation: Spores/cubic meter = (Raw spore count)\*(MDL)

Note: MDL (Minimum Detection Limit) is calculated based upon 1 raw spore count.

Steve Moody Micro Services recommends two significant figures for calculated values based ASTM D7391-09.



LAB # 102577

## Chain of Custody

Page of 2



Lab Job#	1213-	
Lab Job#	12F-11366	Acc: 16
Lab Job#		

Please call in advance for immediate, after-hour, & weekend pricing & availability.\*\* urnaround of Culture Samples subject to Culture Growth\*

MOLD Non-culture ( Analyze Blan Culture (Swa  Billing Com Submitter / C Project: Contact Info E-mail Resul Invoice Addi — Please r	day   2 day   3 day   5 day   Immedia   Analyze All   Positive Stop	Immediate Immediate	Project #: <u>0112 2 3 4 A</u> Phone #:  Mobile #: <u>972 - 989 - 103 1</u> P.O. #:
Notes:	Sample Description	Vol. / Area if applicable	I LOCADON / NOIES I
22	Exterior, No-theast	75	H= 18.6% T= 80/1"
23	Exterior, North	75	H=22.1.10 T=78.40
24	Exterior, Northwest	75	H= 20.7.10 T= 80.60
25	Room A-207	150	H= 36.7 % T=76.4°
			M = Frank WAII 25-65 But WAII 18-90
26	Room 6207	150	H= 43.3% T= 77.1° M= 12-14
27	Room 6-206	150	H=40.0% T= 76.1° M= 10-18
28	Room (-204	150	H=44.6% T=75.0 " M= Buck Vall
			18-70
29	Room C- 203	150	H=49.8% T= 74.3° M= 10-14
30	Room (- 202	150	H = 43.2% T= 74.3° M= 9-16
Released By:	Date / Time: 9/19/2012 140-	Received By:	Date / Time 2 2.07 W

## Chain of Custody

Page **2** of **2** 



Lab Job#	12F-11366	
Lab Job #		
Lab Job #		

Project: Marcus High School	25	Classrooms	Project #: 6112234 A
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Sample # Sample Description		Vol. / Area	Location / Notes	
		if applicable		
31	Room C-201	150	H= 44.7% T= 74.4 " M= 9-17	
32	Room 0-202	150	H: 47.0% T= 74.8 " M= 10-14	
***				



Mold Services Definitions & Limitations/ Standard of Care and Reliance



#### Mold Services Definitions & Limitations

"Mold" defined. Mold is a general term used to describe various types of singled-celled naturally occurring biological organisms occurring worldwide. For purposes of this report (and the Texas Mold Assessment & Remediation Rules), the term "mold" is broadly defined to include any living or dead fungi or related products or parts, including spores, hyphae, and mycotoxins.

Limited Scope of Mold Assessment. The scope of SWG's mold assessment services as reflected in the Proposal and this report are limited in that (i) they were physically limited to certain portions of the building structure (e.g., the Client identified Investigation Areas); and (ii) limited by accessibility to building materials or components within the Investigation Area(s). In contrast to a Limited Assessment" is a comprehensive assessment, which involves destructive sampling methods and the scope of the assessment typically extending to the entire building structure.

Time sensitive. 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 aeroallergens. Because no limit values presently exist, SWG 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 from a limited mold assessment are limited because of the nature of the information obtained (e.g., 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). SWG cannot warrant the accuracy of prior or subsequent information/data, reports and services performed by other firms at the Site. SWG assumes no responsibility or liability for errors in information or data provided by or through the client or third party sources. SWG's services are not to be construed as legal or medical interpretation or advice.



Moisture Intrusion Limitation. SWG performs mold assessment services and is not a moisture intrusion, HVAC, roofing, plumbing or building envelope specialist. However, during the course of conducting its mold assessment services, SWG will report observed areas of apparent moisture intrusion. SWG does not and will not investigate the cause or causes of such observed moisture intrusion. In the event apparent moisture intrusion is observed, SWG 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.

Texas Licensing Requirements. SWG (and/or its personnel) will render the services set forth in this proposal in the capacity of a Texas licensed Mold Assessor. SWG is not licensed as a Mold Remediation Contractor and does not perform mold remediation. As of January 1, 2005, Texas law has required that Mold Assessors and Mold Remediation Contractors be licensed.

*Mold Remediation Certificate.* 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 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 10<sup>th</sup> 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 SWG's issuance of a Mold Remediation Certificate 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 the Investigation Area or the Site. In the event that SWG is engaged to render services in connection with a mold remediation project, SWG will require *Client to provide to SWG a signed certificate prepared by Client's moisture intrusion specialist or appropriate contractor stating that all sources of moisture which resulted in the presence of mold in the Investigation Area have been fully remediated and corrected.* 

#### Standard of Care

SWG performed its 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, expressed or implied, apply to the Services hereunder or this report.

#### Reliance

SWG's proposal for this project, services and this report have been prepared on behalf of and for the exclusive use of Lewisville Independent School District solely for their use and reliance in assessing the presence of mold in the Investigation Areas of the site. Lewisville Independent School District is the only party to which SWG 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, SWG 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 the proposal, the Services or this report shall be limited in the aggregate to all relying parties to the fair market value of the Services provided by SWG.