REAL INNOVATION
LIMITLESS OPPORTUNITY
LEWISVILLE INDEPENDENT SCHOOL DISTRICT

DATE: September 12, 2014

TO: Jana Benham, Assistant Principal

SUBJECT: Briarhill MS - IAQ - Air Test Results - 7 areas

On Tuesday 9/9, Apex-Titan Air tested the Choir Room, Choir Office, Band Hall, Band Office, Room P4, Room 403 and Room 200. It is typically assumed that indoor spore levels in an area with filtered or air conditioned air, and activity levels associated with schools average 10% to 40% of the outdoor levels. Data from the airborne fungi sampling indicated that the total indoor concentration of mold/fungi in the Choir Room, was **4.5%**, the Choir Office, was **10.3%**, the Band Hall, was **3.3%**, the Band Office, was **8.6%**, Room P4, was **6.4%**, Room 403, was **2.6%**, and Room 200, was **1.9%**, of the outdoor levels. Utilizing this theory, the indoor concentrations are well within the acceptable guidelines for areas with filtered air or air conditioning. If you have any questions, please call me.
Thanks,
Paul

Paul Siddall
Maintenance Energy Auditor (IAQ)
Facility Services
Lewisville ISD
469-446-8882

September 18, 2014

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

Re: Limited Mold Assessment Services
Briarhill Middle School
Choir Room, Band Room, Choir Room Office, Band Room Office,
Rooms P4, 403, and 200
2100 Briarhill Boulevard
Highland Village, Texas
Apex Project No. 7210114H216
LISD PO# 91410281-00

Introduction

Apex TITAN, Inc., a subsidiary of Apex Companies, LLC (APEX) conducted limited mold assessment activities for Lewisville Independent School District (Lewisville I.S.D.) within Briarhill Middle School located at 2100 Briarhill Boulevard in Highland Village, Texas (hereinafter referred to as the "Site"). 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 (Lic. No. MAT1075) on September 9, 2014. Apex'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 the Choir Room, Band Room, Choir Room Office, Band Room Office, Rooms P4, 403, and 200. Apex'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 Apex's mold assessment or this report at this time.

Scope of Work

As set forth in Apex's Mold Assessment Proposal (No. P0114H1326) dated August 27, 2014. Apex's scope-of-work was to provide visual and/or analytical mold assessment and related services in the Investigation Areas which included:

Visual Reconnaissance: Apex 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. Apex's visual reconnaissance only included readily accessible or visible portions of the Investigation Areas.

Suspect Mold Growth Sampling and Analysis: Apex 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

Apex' Mold Assessment Site reconnaissance was performed on September 9, 2014 by Mr. Clinton S. Jech. Apex's visual reconnaissance of the Investigation areas revealed the following:

Temperature and Relative Humidity

Temperature readings collected inside the investigation areas ranged from 71.4 to 75.2 degrees Fahrenheit while relative humidity ranged from 39.6 to 50.6 percent. Temperature readings collected outside the building ranged from 87.4 to 90.5 degrees Fahrenheit while outside relative humidity ranged from 48.2 to 51.3 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/workplace 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
Acceptable Ranges Of Temperature 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

Apex utilized a Protimeter Moisture Measurement System (MMS) instrument (Model No. BLD2000) to measure and diagnose dampness in the drywall within random areas. 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 taken from the walls within the investigation areas ranged from 13-16% which is considered normal by the manufacturer.

Air Monitoring Results

Apex collected seven (7) samples from the interior of the investigation areas and two (2) samples from the exterior of the building. The microbial samples were analyzed by Steve Moody Micro Services, Inc. (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 indicated that total airborne mold spores in the rooms were lower as compared to those measured outside of the building at the time the sampling was performed. The total fungal spore concentration within the investigation areas ranged from 236 to 1,310 counts/m^3 while the exterior levels ranged from 10,462 to 12,688 counts/m^3.

Choir Room Office

Two (2) types of mold were identified at a higher concentration within the investigation area as compared to the sample collected from the exterior of the building. Air sample(s) collected within the Choir Room Office reported Curvularia as 47 counts/m^3 while exterior levels were reported as 27 counts/m^3. Stachybotrys was reported as 7 counts/m^3 while no exterior levels were reported.

Band Hall

Two (2) types of mold were identified at a higher concentration within the investigation area as compared to the sample collected from the exterior of the building. Air sample(s) collected within the Band Hall reported Curvularia as 40 counts/m^3 while exterior levels were reported as 27 counts/m^3. Stachybotrys was reported as 7 counts/m^3 while no exterior levels were reported.

Band Hall Office

Two (2) types of mold were identified at a higher concentration within the investigation area as compared to the sample collected from the exterior of the building. Air sample(s) collected within the Band Hall Office reported Curvularia as 67 counts/m^3 while exterior levels were reported as 27 counts/m^3. Coprinus group was reported as 7 counts/m^3 while no exterior levels were reported.

Room P4

Two (2) types of mold were identified at a higher concentration within the investigation area as compared to the sample collected from the exterior of the building. Air sample(s) collected within room P4 reported Curvularia as 77 counts/m^3 while exterior levels were reported as 27 counts/m^3. Stachybotrys was reported as 7 counts/m^3 while no exterior levels were reported.

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). Due to the levels of Stachybotrys compared to the building exterior, Apex considers the airborne mold concentration to be elevated.

Suspect Mold

No visible mold was observed during the assessment. No odors or excessive dust were noted.

Conclusions and Recommendations

Based on Apex's limited assessment and the analytical results collected, it appears that the indoor air quality, as it relates to airborne fungi was within recommended guidelines. However, due to the presence of Stachybotrys, additional assessment may be considered for a higher level of confidence.

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,
Apex TITAN, Inc.

Darren G. Bowden
Senior Program Manager
Texas Mold Assessment Consultant
Lic. No. MAC0321

Attachments: Analytical Results/Chain of Custody, Mold Services Definitions & Limitations

ATTACHMENT 1

Analytical Results/Chain of Custody

IAQ Mold Report

Summary

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

DSHS License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Apex TITAN, Inc. - Dallas, TX
Lab Job No. 14F-11327
Project : Briarhill MS. 7 Areas
Report Date 09/11/2014 11:37 AM
Project # : 7210114H216 **Sample Date :** 09/09/2014
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile

On 9/9/2014, nine (9) samples were submitted by Clint Jech of Apex TITAN, Inc. - Dallas, TX (located at 2351 W. NW Highway #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	
1	150	Choir Room * See Analytical Notes report for further details	Basidiospores	167	29%
			Hyphal / Spore Fragments	147	26%
			Myxomycete / Rust / Smut	67	12%
			Cladosporium	67	12%
			Aspergillus / Penicillium	47	8%
			Drechslera / Bipolaris group	40	7%
			Pithomyces	13	2%
			Alternaria	13	2%
			Nigrospora	7	1%
			Curvularia	7	1%
			Total:	575	100%
2	150	Choir Office * See Analytical Notes report for further details	Basidiospores	387	30%
			Cladosporium	227	17%
			Hyphal / Spore Fragments	167	13%
			Aspergillus / Penicillium	167	13%
			Myxomycete / Rust / Smut	147	11%
			Curvularia	47	4%
			Ascospores	47	4%
			Drechslera / Bipolaris group	33	3%
			Nigrospora	27	2%
			Alternaria	27	2%
			Paecilomyces	20	2%
			Stachybotrys	7	<1%
			Fusarium	7	<1%
			Total:	1310	100%

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
3	150	Band Hall * See Analytical Notes report for further details	Cladosporium	87	21%
			Ascospores	67	16%
			Aspergillus / Penicillium	60	14%
			Hyphal / Spore Fragments	47	11%
			Myxomycete / Rust / Smut	47	11%
			Curvularia	40	10%
			Drechslera / Bipolaris group	27	6%
			Basidiospores	27	6%
			Stachybotrys	7	2%
			Pithomyces	7	2%
			Total:	416	100%
4	150	Band Office * See Analytical Notes report for further details	Basidiospores	354	33%
			Myxomycete / Rust / Smut	167	15%
			Hyphal / Spore Fragments	160	15%
			Aspergillus / Penicillium	107	10%
			Cladosporium	100	9%
			Drechslera / Bipolaris group	67	6%
			Curvularia	67	6%
			Nigrospora	27	2%
			Ascospores	20	2%
			Alternaria	13	1%
			Coprinus group	7	<1%
			Total:	1089	100%

IAQ Mold Report

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
5	150	Room P4 * See Analytical Notes report for further details	Basidiospores	200	25%
			Hyphal / Spore Fragments	140	17%
			Aspergillus / Penicillium	127	16%
			Myxomycete / Rust / Smut	87	11%
			Cladosporium	87	11%
			Drechslera / Bipolaris group	53	7%
			Curvularia	47	6%
			Ascospores	47	6%
			Alternaria	13	2%
			Stachybotrys	7	<1%
			Pithomyces	7	<1%
			Total:	815	100%
6	150	Room 403	Cladosporium	160	48%
			Paecilomyces	40	12%
			Myxomycete / Rust / Smut	33	10%
			Basidiospores	27	8%
			Aspergillus / Penicillium	20	6%
			Ascospores	20	6%
			Hyphal / Spore Fragments	13	4%
			Drechslera / Bipolaris group	13	4%
			Nigrospora	7	2%
			Total:	333	100%

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
7	150	Room 200 * See Analytical Notes report for further details	Basidiospores	67	28%
			Hyphal / Spore Fragments	47	20%
			Cladosporium	47	20%
			Drechslera / Bipolaris group	20	8%
			Aspergillus / Penicillium	20	8%
			Nigrospora	7	3%
			Myxomycete / Rust / Smut	7	3%
			Curvularia	7	3%
			Ascospores	7	3%
			Alternaria	7	3%
			Total:	236	100%
8	75	Exterior, Southwest	Cladosporium	4852	46%
			Basidiospores	2959	28%
			Ascospores	613	6%
			Myxomycete / Rust / Smut	520	5%
			Alternaria	413	4%
			Hyphal / Spore Fragments	213	2%
			Aspergillus / Penicillium	213	2%
			Cercospora	200	2%
			Nigrospora	133	1%
			Paecilomyces	120	1%
			Fusarium	120	1%
			Drechslera / Bipolaris group	53	<1%
			Curvularia	27	<1%
			Helicomyces	13	<1%
			Epicoccum	13	<1%
			Total:	10462	100%

IAQ Mold Report

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
9	75	Exterior, Northwest * See Analytical Notes report for further details	Cladosporium	5479	43%
			Basidiospores	3852	30%
			Alternaria	773	6%
			Hyphal / Spore Fragments	693	5%
			Myxomycete / Rust / Smut	533	4%
			Cercospora	333	3%
			Fusarium	293	2%
			Ascospores	240	2%
			Aspergillus / Penicillium	213	2%
			Drechslera / Bipolaris group	133	1%
			Nigrospora	80	<1%
			Curvularia	27	<1%
			Periconia	13	<1%
			Pithomyces	13	<1%
			Epicoccum	13	<1%
			Total:	12688	100%

Analyst(s): Rebecca Lutz

Lab Manager : Heather Lopez Approved Signatory : Heather Lopez

Lab Director : Bruce Crabb Approved Signatory : Bruce Crabb

Thank you for choosing Steve Moody Micro Services

IAQ Mold Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Data Detail

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Sample ID:	**1**				**2**				**3**			
Location:	Choir Room				Choir Office				Band Hall			
Media Expires On:	Feb 2015				Feb 2015				Feb 2015			
Notes Included:												
Volume:	150				150				150			
	raw ct.	MDL	spores/m³		raw ct.	MDL	spores/m³		raw ct.	MDL	spores/m³	
Alternaria	2	6.67	13	2%	4	6.67	27	2%				
Ascospores					7	6.67	47	4%	10	6.67	67	16%
Aspergillus / Penicillium	7	6.67	47	8%	25	6.67	167	13%	9	6.67	60	14%
Basidiospores	25	6.67	167	29%	58	6.67	387	30%	4	6.67	27	6%
Cercospora												
Chaetomium												
Cladosporium	10	6.67	67	12%	34	6.67	227	17%	13	6.67	87	21%
Coprinus group												
Curvularia	1	6.67	7	1%	7	6.67	47	4%	6	6.67	40	10%
Drechslera / Bipolaris group	6	6.67	40	7%	5	6.67	33	3%	4	6.67	27	6%
Epicoccum												
Fusarium					1	6.67	7	<1%				
Helicomyces												
Hyphal / Spore Fragments	22	6.67	147	26%	25	6.67	167	13%	7	6.67	47	11%
Memnoniella												
Myxomycete / Rust / Smut	10	6.67	67	12%	22	6.67	147	11%	7	6.67	47	11%
Nigrospora	1	6.67	7	1%	4	6.67	27	2%				
Paecilomyces					3	6.67	20	2%				
Periconia												
Pithomyces	2	6.67	13	2%					1	6.67	7	2%
Stachybotrys					1	6.67	7	<1%	1	6.67	7	2%
TOTALS	86		575	100%	196		1310	100%	62		416	100%
Analyst	Rebecca Lutz				Rebecca Lutz				Rebecca Lutz			
Analysis Date	9/11/2014				9/11/2014				9/11/2014			
Debris Rating	5				5				5			
Debris Composition												
Fibers	3/5				4/5				4/5			
Inorganic/Other	4/5				4/5				3/5			
Insect Parts	1/5				0/5				0/5			
Pollen	1/5				1/5				1/5			
Skin/Dander	5/5				5/5				5/5			

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Sample ID:	**4**				**5**				**6**			
Location:	Band Office				Room P4				Room 403			
Media Expires On:	Feb 2015				Feb 2015				Feb 2015			
Notes Included:												
Volume:	150				150				150			
	raw ct.	MDL	spores/m³		raw ct.	MDL	spores/m³		raw ct.	MDL	spores/m³	
Alternaria	2	6.67	13	1%	2	6.67	13	2%				
Ascospores	3	6.67	20	2%	7	6.67	47	6%	3	6.67	20	6%
Aspergillus / Penicillium	16	6.67	107	10%	19	6.67	127	16%	3	6.67	20	6%
Basidiospores	53	6.67	354	33%	30	6.67	200	25%	4	6.67	27	8%
Cercospora												
Chaetomium												
Cladosporium	15	6.67	100	9%	13	6.67	87	11%	24	6.67	160	48%
Coprinus group	1	6.67	7	<1%								
Curvularia	10	6.67	67	6%	7	6.67	47	6%				
Drechslera / Bipolaris group	10	6.67	67	6%	8	6.67	53	7%	2	6.67	13	4%
Epicoccum												
Fusarium												
Helicomyces												
Hyphal / Spore Fragments	24	6.67	160	15%	21	6.67	140	17%	2	6.67	13	4%
Memnoniella												
Myxomycete / Rust / Smut	25	6.67	167	15%	13	6.67	87	11%	5	6.67	33	10%
Nigrospora	4	6.67	27	2%					1	6.67	7	2%
Paecilomyces									6	6.67	40	12%
Periconia												
Pithomyces					1	6.67	7	<1%				
Stachybotrys					1	6.67	7	<1%				
TOTALS	163		1089	100%	122		815	100%	50		333	100%
Analyst	Rebecca Lutz				Rebecca Lutz				Rebecca Lutz			
Analysis Date	9/11/2014				9/11/2014				9/11/2014			
Debris Rating	5				5				4			
Debris Composition												
Fibers	4/5				4/5				2/5			
Inorganic/Other	4/5				3/5				4/5			
Insect Parts	0/5				0/5				0/5			
Pollen	1/5				1/5				0/5			
Skin/Dander	5/5				5/5				2/5			

IAQ Mold Report

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Sample ID:	**7**				**8**				**9**			
Location:	Room 200				Exterior, Southwest				Exterior, Northwest			
Media Expires On:	Feb 2015				Feb 2015				Feb 2015			
Notes Included:												
Volume:	150				75				75			
	raw ct.	MDL	spores/m³		raw ct.	MDL	spores/m³		raw ct.	MDL	spores/m³	
Alternaria	1	6.67	7	3%	31	13.33	413	4%	58	13.33	773	6%
Ascospores	1	6.67	7	3%	46	13.33	613	6%	18	13.33	240	2%
Aspergillus / Penicillium	3	6.67	20	8%	16	13.33	213	2%	16	13.33	213	2%
Basidiospores	10	6.67	67	28%	222	13.33	2959	28%	289	13.33	3852	30%
Cercospora					15	13.33	200	2%	25	13.33	333	3%
Chaetomium												
Cladosporium	7	6.67	47	20%	364	13.33	4852	46%	411	13.33	5479	43%
Coprinus group												
Curvularia	1	6.67	7	3%	2	13.33	27	<1%	2	13.33	27	<1%
Drechslera / Bipolaris group	3	6.67	20	8%	4	13.33	53	<1%	10	13.33	133	1%
Epicoccum					1	13.33	13	<1%	1	13.33	13	<1%
Fusarium					9	13.33	120	1%	22	13.33	293	2%
Helicomyces					1	13.33	13	<1%				
Hyphal / Spore Fragments	7	6.67	47	20%	16	13.33	213	2%	52	13.33	693	5%
Memnoniella												
Myxomycete / Rust / Smut	1	6.67	7	3%	39	13.33	520	5%	40	13.33	533	4%
Nigrospora	1	6.67	7	3%	10	13.33	133	1%	6	13.33	80	<1%
Paecilomyces					9	13.33	120	1%				
Periconia									1	13.33	13	<1%
Pithomyces									1	13.33	13	<1%
Stachybotrys												
TOTALS	35		236	100%	785		10462	100%	952		12688	100%
Analyst	Rebecca Lutz				Rebecca Lutz				Rebecca Lutz			
Analysis Date	9/11/2014				9/11/2014				9/11/2014			
Debris Rating	5				4				5			
Debris Composition												
Fibers	2/5				3/5				4/5			
Inorganic/Other	3/5				4/5				5/5			
Insect Parts	0/5				0/5				1/5			
Pollen	0/5				1/5				1/5			
Skin/Dander	5/5				1/5				1/5			

IAQ Mold Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Analytical Notes

DSHS License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Apex TITAN, Inc. - Dallas, TX
Lab Job No. : 14F-11327
Project : Briarhill MS. 7 Areas
Report Date : 09/11/2014 11:37 AM
Project # : 7210114H216
Sample Date : 09/09/2014
Sample Type: Spore Trap, Non-cultured
Spore Trap Type: Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile

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

Samples Analyzed

Sample No:	1 : Choir Room
Notes:	20% Occluded.
Sample No:	2 : Choir Office
Notes:	40% Occluded.
Sample No:	3 : Band Hall
Notes:	20% Occluded.
Sample No:	4 : Band Office
Notes:	50% Occluded.
Sample No:	5 : Room P4
Notes:	50% Occluded.
Sample No:	7 : Room 200
Notes:	20% Occluded.
Sample No:	9 : Exterior, Northwest
Notes:	20% Occluded.

Field Blanks

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

NOTE: All remaining samples suitable for analysis.

IAQ Mold Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Analytical Notes

DSHS License No.: LAB0117
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Client : Apex TITAN, Inc. - Dallas, TX
Lab Job No. : 14F-11327
Project : Briarhill MS. 7 Areas
Report Date : 09/11/2014 11:37 AM
Project # : 7210114H216 **Sample Date :** 09/09/2014
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile

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

Methods

Method: ASTM D7391-09: Categorization and Quantification of Airborne Fungal Structures in an Inertial 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 on ASTM D7391-09.

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 debris detected.
1 - Trace debris.
2 - Light debris.
3 - Moderate debris.
4 - Substantial debris.
5 - Extensive debris.
6 - Field blank.
10 - Hold Sample

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

IAQ Mold Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Analytical Notes

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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.

AIHA LAP, LLC
ACCREDITED LABORATORY
ENVIRONMENTAL MICROBIOLOGY
ISO/IEC 17025:2005
WWW.AIHAACCREDITEDLABS.ORG
LAB # 102577

HUB
Statewide Historically Underutilized Business Program

TEXAS Department of State Health Services
License # LAB0117

Certified WBENC Women's Business Enterprise

IAQ Mold Report

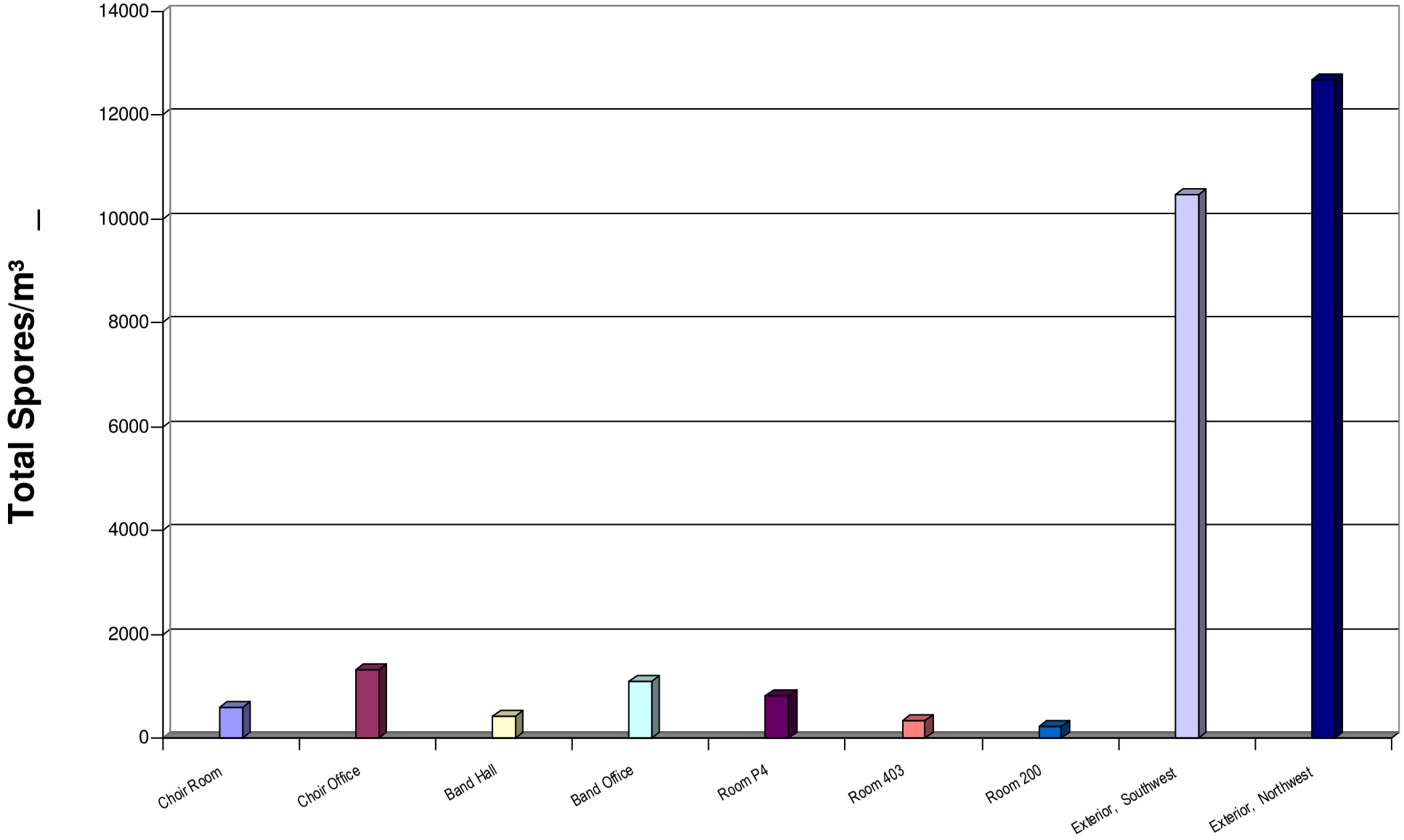
Supplemental Overview

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

DSHS License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Apex TITAN, Inc. - Dallas, TX
Project : Briarhill MS. 7 Areas
Project # : 7210114H216

Lab Job No. 14F-11327
Report Date
Sample Date : 09/09/2014



Chain of Custody

Page 1 of 2

SMMS LABS

Lab Job # 14F-11327 AOC 9
Lab Job #
Lab Job #

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

ASBESTOS PLM
Bulk ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
☐ **Analyze All** ☐ **Positive Stop**

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD
Non-culture (Tape / Bulk / (Air)) ☐ 1 day ☒ 2 day ☐ Immediate
☒ Air Standard Profile ☐ Air Expanded Profile
Analyze Blanks ☐ **Yes** ☐ **No**
Culture (Swab / Bulk / Plate) ☐ 7-14 day

ASBESTOS TEM

Air AHERA Method	☐ 6 hr	☐ 12hr	☐ 24 hr
Air 7402 (Modified)	☐ 1 day	☐ 2 day	☐ 3 day
Bulk/Wipe/Micro Vac	☐ 1 day	☐ 2 day	☐ 3 day
Water	☐ 1 day	☐ 2 day	☐ 3 day

Analyze Blanks ☐ **Yes** ☐ **No**

BACTERIA

Heterotrophic Plate Count (HPC)	☐ 3 day	
HPC + Gram Stain	☐ 3 day	☐ 5 day
HPC + 3 Gram Neg ID	☐ 6-8 day	
HPC + 5 Gram Neg ID	☐ 6-8 day	
Fecal Coliform (MPN)	☐ 3 day	
Total Coliform & E Coli (P/A)	☐ 2-3 day	

OTHER:

Billing Company / City: Apex Titan Dallas South
Submitter's Company:
Submitter's Name: Clint JEch
Project: Briarhill MS. 7 Areas
Contact Information: Name: Clint JEch
E-mail Results to: Clint/Darren/Veronica
Invoice Address:

# of Samples: 9
Sample Date: 9/9/2014
Project #: 7210114H216
Phone #:
Mobile #: (972) 989-1031
Fax #:
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	Choir Room	150	T= 73.2 °F H=39.4%
			Walls = CMU Block
			Ceilings = Lay-in Ceiling Tile
			Floors = Carpet
2	Choir office	150	T= 71.7 °F H = 46.4 %
			Ceilings = Lay-in Ceiling Tile
			Walls = CMU Block
			Floors = Carpet
3	Band Hall	150	T= 71.4 °F H=50.6 %
			Ceilings = Lay-in Ceiling Tile
			Walls = CMU Block
			Floors = Carpet
4	Band office	150	T= 74.3 °F H = 44.7 %
			Ceilings = Lay-in Ceiling Tile / Walls = CMU Block
			Floors = Carpet Via Drop Box

Released By:	Date / Time: 9/9/2014 1857	Received By:	Date / Time: 9-9-14 6:35PM
Released By:	Date / Time:	Received By:	Date / Time:

Chain of Custody

Page 2 of 2

SMMS LABS

Lab Job # 14F-11327
Lab Job #
Lab Job #

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

ASBESTOS PLM
Bulk ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
☐ **Analyze All** ☐ **Positive Stop**

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD
Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile
Analyze Blanks ☐ **Yes** ☐ **No**
Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER: _____

ASBESTOS TEM

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

BACTERIA

Heterotrophic Plate Count (HPC)	☐3 day	
HPC + Gram Stain	☐3 day	☐5 day
HPC + 3 Gram Neg ID	☐6-8 day	
HPC + 5 Gram Neg ID	☐6-8 day	
Fecal Coliform (MPN)	☐3 day	
Total Coliform & E Coli (P/A)	☐2-3 day	

Billing Company / City: _____ # of Samples: _____
Submitter's Company: _____ Sample Date: _____
Submitter's Name: _____ Project #: _____
Project: _____ Phone #: _____
Contact Information: Name: _____ Mobile #: _____
E-mail Results to: _____ Fax #: _____
Invoice Address: _____ P.O. #: _____

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

Notes: _____

Sample #	Sample Description	Vol. / Area if applicable	Location / Notes
5	Room 404	150	T=72.8° H=49.5 %
			Ceilings = Layin Ceiling Tile
			Walls = CMU Block
			Floors = Carpet
6	Room 403	150	T=74.3 °H=50.2 % M=13-16 %
			Ceilings = Layin Ceiling Tile
			Walls = Wall Covering/Drywall
			Floors = Carpet
7	Room 208	150	T=75.2 °H=48.0 % M=15 %
			Ceilings = Lay-in Ceiling Tile
			Walls = Wall Covering on Drywall
			Floors = Carpet
8	Exterior, Southwest	75	T=87.4 ° H=51.3 %
9	Exterior, Northwest	75	T=90.5 ° H=48.2 %

Released By:	Date / Time:	Received By:	Date / Time:
Released By:	Date / Time:	Received By:	Date / Time:

ATTACHMENT 2

Mold Services Definitions & Limitations/Standard of Care and Reliance

APEX

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 Apex'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, Apex 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). Apex cannot warrant the accuracy of prior or subsequent information/data, reports and services performed by other firms at the Site. Apex assumes no responsibility or liability for errors in information or data provided by or through the client or third party sources. Apex's services are not to be construed as legal or medical interpretation or advice.

Moisture Intrusion Limitation. Apex 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, Apex will report observed areas of apparent moisture intrusion. Apex does not and will not investigate the cause or causes of such observed moisture intrusion. In the event apparent moisture intrusion is observed, Apex 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. Apex (and/or its personnel) will render the services set forth in this proposal in the capacity of a Texas licensed Mold Assessor. Apex 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 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 Apex'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 Apex is engaged to render services in connection with a mold remediation project, Apex will require *Client to provide to Apex 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
Apex 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
Apex'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 Apex 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, Apex 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 Apex.