

**DATE:** May 27, 2015

**TO:** Nicole Jund, Principal

**SUBJECT:** Creek Valley MS - IAQ - Initial Contact - Rooms 2355 & 2365

This afternoon 5/27, I received an E-mail from Beckie Hall: "How do I get a room checked for a musty smell? I had a teacher come to me and say that she just got diagnosed with adult onset asthma and another teacher has detected a smell in her room. Also Nicole has smelled something in a room right by hers. They are rooms #2355 & #2365. ~b". This afternoon 5/27, I inspected both rooms. There were no noticeable water intrusions. I have submitted a P.O. request to have the two rooms Air Tested. We should have the results back by Monday 6/1. If you have any questions, please contact me.

Thanks, Paul

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



**DATE:** June 25, 2015

**TO:** Nicole Jund, Principal

**SUBJECT:** Creek Valley MS - IAQ - Air Test results - Rooms 2355 & 2365

On Friday 6/19, Apex-Titan Air tested Rooms 2355 and 2365. 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 Room 2355, was **0.6**%, Room 2365, was **1.0**% 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



June 25, 2015

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

Re: Limited Mold Assessment Services

Creek Valley Middle School Rooms 2355 and 2365 4109 Creek Valley Boulevard

Carrollton, Texas

LISD PO No. 91536640-00 Apex Proposal No. 7250115171

## **Introduction**

Apex TITAN, Inc., a subsidiary of Apex Companies, LLC (APEX) conducted limited mold assessment activities for the Lewisville Independent School District (Lewisville I.S.D.) within Creek Valley Middle School located at 4109 Creek Valley Boulevard in Carrollton, 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 June 19, 2015. 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 rooms 2355 and 2365. 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. P01151247) dated May 28, 2015. 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 June 19, 2015 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 rooms were reported from 83.8 to 89.3 degrees Fahrenheit while relative humidity was reported from 52.8 to 60.6 percent. Temperature readings collected outside the building ranged from 91.0 to 93.0 degrees Fahrenheit while outside relative humidity ranged from 47.1 to 50.6 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 rooms ranged from 11-20% which is considered normal to higher than normal but not critical by the manufacturer.



#### **Air Monitoring Results**

Apex collected two (2) samples from the interior of the investigation area and two (2) samples from the exterior of the building. The microbial samples were analyzed by Steve Moody Micro Services, LLC (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.

## **Room 2355**

Air testing performed using spore traps indicated that total airborne mold spores in the classroom was 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 area was reported as 381 counts/m³ while the exterior level ranged from 59,559 to 61,248 counts/m³.

#### Room 2365

Air testing performed using spore traps indicated that total airborne mold spores in the classroom was 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 area was reported as 582 counts/m³ while the exterior level ranged from 59,559 to 61,248 counts/m³.

One type of mold was identified at a higher concentration within the investigation area compared to the sample collected from the exterior of the building. Air sample(s) collected within room 2356 reported Stachybotrys as 7 counts/m³ 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).

#### 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 on the day of the assessment. The wet sheetrock should be removed. Due to the presence of Stachybotrys additional tests may be performed 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





**Summary** 

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client: Apex TITAN, Inc. - Dallas, TX Lab Job No. 15F-07823

**Project:** Creek Valley MS, Rooms 2355 and 2365 **Report Date** 06/23/2015 12:17 PM

**Project #:** 725011517 **Sample Date :** 06/19/2015

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

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 1 of 3

On 6/19/2015, four (4) 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		ntration ibic meter	
	75	Exterior, Southeast * See Analytical Notes report for further details	Basidiospores Cladosporium Ascospores Coprinus group Aspergillus / Penicillium Myxomycete / Rust / Smut Cercospora Agaricales group Hyphal / Spore Fragments Pyricularia Fusarium Epicoccum Fusicladium Drechslera / Bipolaris group Helicomyces Ganoderma Nigrospora Alternaria Oidium Pseudocercospora Scopulariopsis	Total:	38600 16666 2213 1213 773 493 373 173 160 93 80 67 13 13 13 13 13 13	63% 27% 4% 2% 1% <1% <1% <1% <1% <1% <1% <1% <1% <1%



# **IAQ Mold Report**

Summary

2051 Valley View Lane

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

Apex TITAN, Inc. - Dallas, TX

**Lab Job No.** 15F-07823

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

**Project :** Creek Valley MS, Rooms 2355 and 2365 **Report Date** 06/23/2015 12:17 PM

**Project #:** 725011517 **Sample Date :** 06/19/2015

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

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 2 of 3

On 6/19/2015, four (4) 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		ntration
2	75	Exterior, Northeast * See Analytical Notes report for further details	Basidiospores Cladosporium Ascospores Coprinus group Myxomycete / Rust / Smut Cercospora Alternaria Pyricularia Aspergillus / Penicillium Pithomyces Agaricales group Hyphal / Spore Fragments Drechslera / Bipolaris group Fusarium Ganoderma Curvularia Nigrospora Chaetomium Periconia Sporidesmium  Total:	46800 7267 2613 773 613 347 293 187 133 80 80 67 67 40 40 13 13 13 13	79% 12% 4% 1% 1% <1% <1% <1% <1% <1% <1% <1% <1%



# **IAQ Mold Report**

Summary

2051 Valley View Lane

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

Lab Job No. 15F-07823 Apex TITAN, Inc. - Dallas, TX

**Project:** Creek Valley MS, Rooms 2355 and 2365 **Report Date** 06/23/2015 12:17 PM

Project #: 725011517 **Sample Date:** 06/19/2015

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

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

On 6/19/2015, four (4) 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		ntration
3	150	Room 2355	Basidiospores Cladosporium Myxomycete / Rust / Smut Aspergillus / Penicillium Hyphal / Spore Fragments Ascospores Nigrospora Coprinus group Curvularia	180 53 40 40 27 20 7 7	47% 14% 10% 10% 5% 2% 2%
4	150	Room 2365 * See Analytical Notes report for further details	Basidiospores Myxomycete / Rust / Smut Hyphal / Spore Fragments Cladosporium Ascospores Drechslera / Bipolaris group Stachybotrys Alternaria Aspergillus / Penicillium	381 247 107 87 80 27 20 7 7	100%  42% 18% 15% 14% 5% 3% 1% <1%
			Total:	582	100%

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

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

Analyst(s): Rebecca Lutz

Lab Manager: Heather Lopez Lab Director: Bruce Crabb

Thank you for choosing Moody Labs

Approved Signatory: Bene Call

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

SMLMS v11.17



# IAQ Mold Report

## **Data Detail**

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Apex TITAN, Inc. - Dallas, TX

Lab Job No.: 15F-07823

Project: Creek Valley MS, Rooms 2355 and 2365 Report Date: 06/23/2015 12:17 PM

**Project #:** 725011517 **Sample Date :** 06/19/2015

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

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 1 of 3

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

Tytorior Couthoost			2				3				
			İ								
_				_				Mar 2016			
S	ee Ana		S	S							
		•				•		raw ct.	MDL	spores/m <sup>3</sup>	
			63%					27	6.67	180	47%
28	13.33	373	<1%	26		347					
				1							
125	133.33	16666	27%	109	66.67	7267	12%	8	6.67	53	, .
91	13.33	1213	2%	58	13.33	773	1%	1	6.67		_,~
				3	13.33	40	<1%	1	6.67	7	2%
5	13.33	67	<1%	5	13.33	67	<1%				
6	13.33	80	<1%								
7	13.33	93	<1%	5	13.33	67	<1%				
6	13.33	80	<1%								
1	13.33	13	<1%	3	13.33	40	<1%				
1	13.33	13	<1%								
13	13.33	173	<1%	6	13.33	80	<1%	4	6.67	27	7%
37	13.33	493	<1%	46	13.33	613	1%	6	6.67	40	10%
1	13.33	13	<1%	3	13.33	40	<1%	1	6.67	7	2%
1	13.33	13	<1%								
				1	13.33	13	<1%				
				6	13.33	80	<1%				
1	13.33	13	<1%								
12	13.33	160	<1%	14	13.33	187	<1%				
1	13.33	13	<1%								
				1	13.33	13	<1%				
767		61248	100%	638		59559	100%	57		381	100%
	Rebe	cca Lutz			Rebe	ecca Lutz			Rebe	ecca Lutz	
	6/2	3/2015			6/2	23/2015			6/2	23/2015	
		3				4				4	
1/5		2/5						1/5			
								3/5			
										0/5	
	1/5 2/5						4/5				
	S raw ct.  13 1 166 58 193 28 125 91 5 6 7 6 1 1 13 37 1 1 1 12 1	raw ct.   MDL   13,33   1   13,33   12   13,33   1   1   13,33   1   1   13,33   1   1   13,33   1   1   13,33   1   1   13,33	Mar 2016         See Analytical Notes         75         raw ct.       MDL       spores/m³         13       13.33       173         1   13.33       2213         58   13.33       773         193   200.00       38600         28   13.33       16666         91   13.33       1213         5   13.33       67         6   13.33       80         7   13.33       93         6   13.33       80         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1   13.33       13         1	See Analytical Notes	Mar 2016   See Analytical Notes   S   75	Mar 2016         Mar 2016         See Analytical Notes         See Analytical Notes           T5           raw ct.         MDL           13 13.33         173 14%         6 13.33           1 13.33         2213 49%         196 13.33           1 166 13.33         2213 49%         196 13.33           1 193 200.00         38600 63%         117 400.00           2 8 13.33         373 < 19%	Mar 2016         Mar 2016           See Analytical Notes           75           raw ct.         MDL         spores/m³           13         13.33         173         <1%	Mar 2016   See Analytical Notes   See Analytical Notes   See Analytical Notes   See Analytical Notes   T5   T5   T6   T75   T75	Mar 2016   See Analytical Notes   See Analytical Notes   To	Mar 2016   See Analytical Notes   See Analytical Notes   See Analytical Notes   See Analytical Notes   T5   T5   T5   T6   T75   T	Mar 2016   See Analytical Notes   See Analytical Notes   See Analytical Notes   See Analytical Notes   To   To   To   To   To   To   To   T



# IAQ Mold Report

## **Data Detail**

2051 Valley View Lane

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

Apex TITAN, Inc. - Dallas, TX

Project: Creek Valley MS, Rooms 2355 and 2365

Project #: 725011517

Sample Type: Spore Trap, Non-cultured

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

**Lab Job No.:** 15F-07823

**Sample Date:** 06/19/2015

**Report Date:** 06/23/2015

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

**Spore Trap Type:** Zefon - Air-O-Cell

Page 2 of 3 This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

Sample ID:	4								
Location:		Roc	m 2365						
Media Expires On:		Ма	ır 2016						
Notes Included:									
Volume:			150						
	raw ct.	MDL	spores/m³						
Agaricales group									
Alternaria	1	6.67	7	1%					
Ascospores	4	6.67	27	5%					
Aspergillus / Penicillium	0	6.67	0	<1%					
Basidiospores	37	6.67	247	42%					
Cercospora									
Chaetomium									
Cladosporium	12	6.67	80	14%					
Coprinus group									
Curvularia									
Drechslera / Bipolaris group	3	6.67	20	3%					
Epicoccum									
Fusarium									
Fusicladium									
Ganoderma									
Helicomyces									
Hyphal / Spore Fragments	13	6.67	87	15%					
Memnoniella									
Myxomycete / Rust / Smut	16	6.67	107	18%					
Nigrospora									
Oidium									
Periconia									
Pithomyces									
Pseudocercospora									
Pyricularia									
Scopulariopsis									
Sporidesmium									
Stachybotrys	1	6.67	7	1%					
TOTALS	87		582	100%					
Analyst		Rebe	ecca Lutz						
Analysis Date		6/2	3/2015						
Debris Rating			5						
Debris Composition									
Fibers			3/5						
Inorganic/Other			4/5						
Insect Parts			0/5						
Pollen			0/5						
Skin/Dander			5/5						



## **Data Detail**

2051 Valley View Lane

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

**Client:** Apex TITAN, Inc. - Dallas, TX

**Project:** Creek Valley MS, Rooms 2355 and 2365

**Project #:** 725011517

Sample Type: Spore Trap, Non-cultured

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

**Lab Job No.:** 15F-07823

**Report Date:** 06/23/2015 12:17 PM

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

**Sample Date:** 06/19/2015

**Spore Trap Type:** Zefon - Air-O-Cell

Page 3 of 3

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



## **Analytical Notes**

DSHS License No.: LAB0117
2051 Valley View Lane

All A EMPAT ID: 102577

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

Client: Apex TITAN, Inc. - Dallas, TX Lab Job No.: 15F-07823

**Project:** Creek Valley MS, Rooms 2355 and 2365 **Report Date:** 06/23/2015 12:17 PM

**Project #:** 725011517 **Sample Date :** 06/19/2015

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

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 1 of 3

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

#### Samples Analyzed

Sample No 1: Exterior, Southeast

Notes: Due to a high presence of Basidiospores, the Minimum Detection Limit is 200 spores / cubic meter for

this fungal group. When comparing results to other samples, use calculated results, not raw numbers. Due to a high presence of Cladosporium, the Minimum Detection Limit is 133 spores / cubic meter for this fungal group. When comparing results to other samples, use calculated results, not raw numbers.

Sample No 2: Exterior, Northeast

Notes: Due to a high presence of Basidiospores, the Minimum Detection Limit is 400 spores / cubic meter for

this fungal group. When comparing results to other samples, use calculated results, not raw numbers. Due to a high presence of Cladosporium, the Minimum Detection Limit is 67 spores / cubic meter for this fungal group. When comparing results to other samples, use calculated results, not raw numbers.

Sample No 4: Room 2365

Notes: 30% Occluded.

#### Field Blanks

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

NOTE: All remaining samples suitable for analysis.



## **Analytical Notes**

DSHS License No.: LAB0117
2051 Valley View Lane

All A EMPAT ID: 102577

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

Client: Apex TITAN, Inc. - Dallas, TX Lab Job No.: 15F-07823

Project: Creek Valley MS, Rooms 2355 and 2365 Report Date: 06/23/2015 12:17 PM

**Project #:** 725011517 **Sample Date :** 06/19/2015

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

**Test Method:** Mold: ASTM D7391-09 - Standard Profile Page 2 of 3
This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

#### **Methods**

Method: ASTM D7391-09: 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.

Moody Labs 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 linear trace detected
- 1 Trace particulate/debris
- 2 Light particulate/debris
- 3 Moderate particulate/debris.
- 4 Substantial particulate/debris
- 5 Extensive particulate/debris
- 6 Field blank
- 10 Hold Sample

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



## **Analytical Notes**

2051 Valley View Lane

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

**Client:** Apex TITAN, Inc. - Dallas, TX

Project: Creek Valley MS, Rooms 2355 and 2365 Report Date: 06/23/2015 12:17 PM

**Project #:** 725011517 **Sample Date :** 06/19/2015

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

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

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



LAB#102577



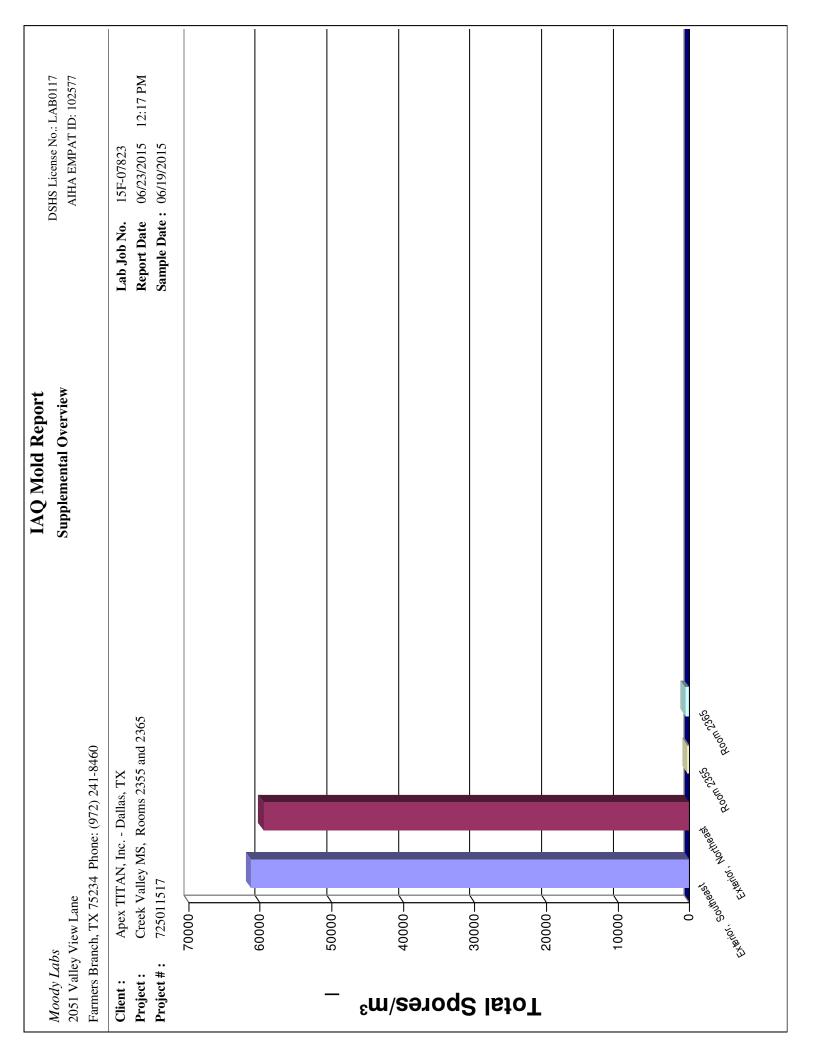




DSHS License No.: LAB0117

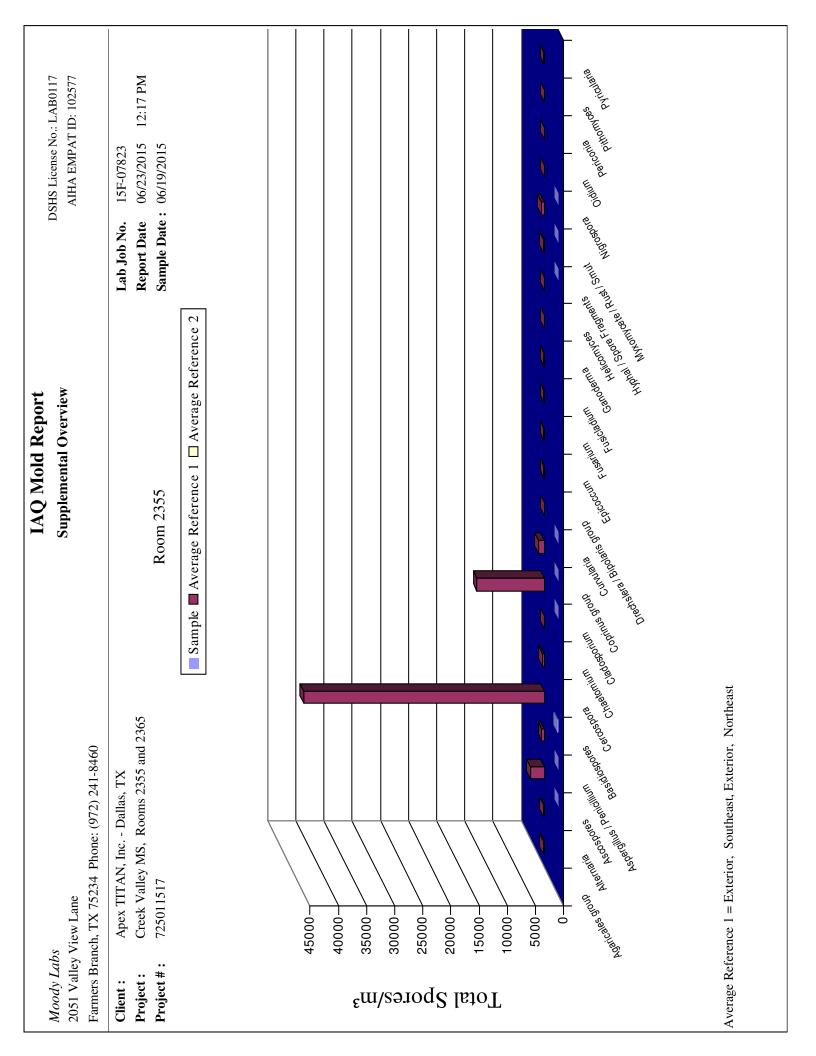
**Lab Job No.:** 15F-07823

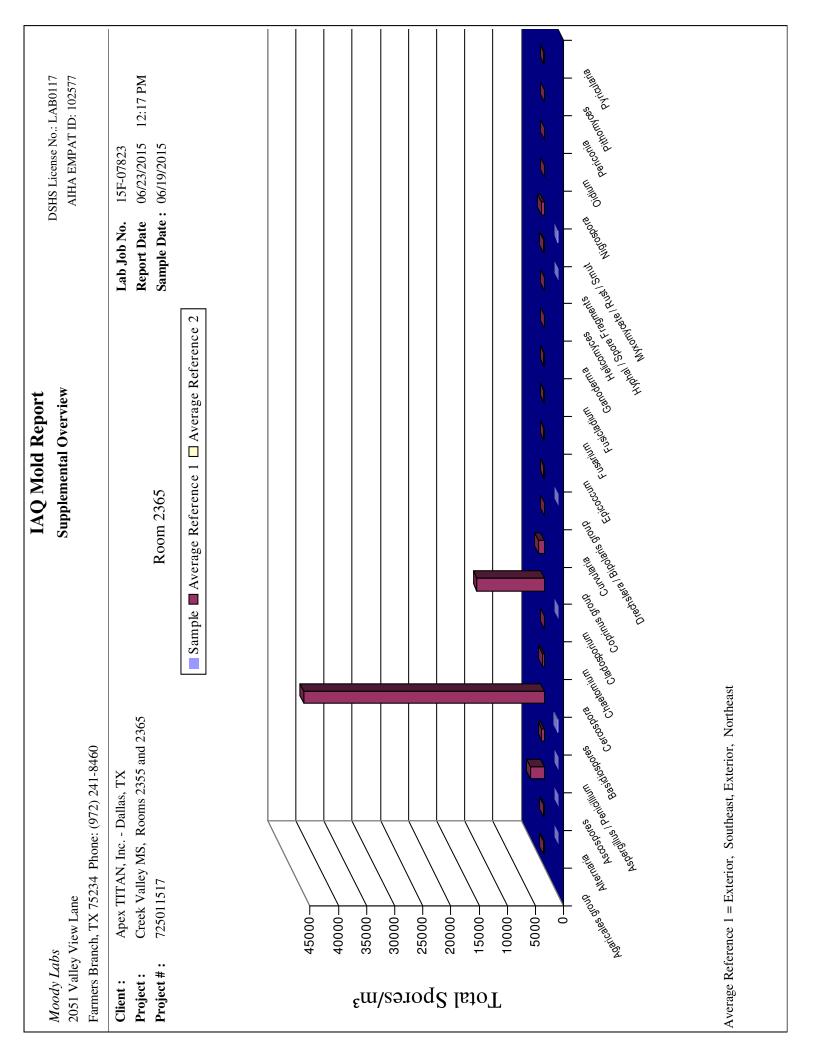
AIHA EMPAT ID: 102577



DSHS License No.: LAB0117 AIHA EMPAT ID: 102577 12:17 PM Saymontig 06/23/2015 **Sample Date:** 06/19/2015 15F-07823 Report Date Lab Job No. Myomyere Rus Smut shamer sands | which Sample ■ Average Reference 1 □ Average Reference 2 Supplemental Overview IAQ Mold Report Mullesun Exterior, Southeast duolo siriodia lebastoalo guorg sunitoo muhoqeobelo Chaetomium Average Reference 1 = Exterior, Southeast, Exterior, Northeast Cercospora Creek Valley MS, Rooms 2355 and 2365 salodsolpised Farmers Branch, TX 75234 Phone: (972) 241-8460 Apex TITAN, Inc. - Dallas, TX millousd snilloladsy Alternaria 725011517 2051 Valley View Lane 30000-20000 45000-40000-35000-25000-15000-10000 -0009 Moody Labs Project #: Project: Client: Total Spores/m³

DSHS License No.: LAB0117 AIHA EMPAT ID: 102577 12:17 PM 06/23/2015 Sample Date: 06/19/2015 15F-07823 Report Date Lab Job No. Myomore | Rush | Smit Hyma | Spore Fragments Sample ■ Average Reference 1 □ Average Reference 2 Ganoderna Supplemental Overview IAQ Mold Report mulpeloisu 4 Mullesun Exterior, Northeast duolo shelodia lebastralo anous shundoo mnuodsopelo Chaebonium Average Reference 1 = Exterior, Southeast, Exterior, Northeast Cetospora Creek Valley MS, Rooms 2355 and 2365 salodsololised Farmers Branch, TX 75234 Phone: (972) 241-8460 Apex TITAN, Inc. - Dallas, TX mullipling / sulliplings 4 Alternaria 725011517 Agaicales group 2051 Valley View Lane 35000 -20000— 50000-40000-30000 25000-15000-10000 -0009 45000-Moody Labs Project #: Project: Client: Total Spores/m³







Lab Job #	15F-07823	AOC:4
Lab Job #_		<u> </u>
Lab Job #_		

	*Please call in	advance for immedia	te, after-hour,	& weekend pri	cing & availa	bility.*	, , ,
PCM Air (74  TOTAL DUS  ASBESTOS  Air AHERA	☐ Immediate ☐ 1 day ☐ 2 day ☐ Analyze All 400) ☐ Immediate ☐ 1 day ☐ 2 day ☐ (0500/0600) ☐ 1 day ☐ 2 day	☐ Positive Stop ☐ 3 day ☐ 5 day ☐ 24 hr	Standar Expand Culture Analyze **Turnaro BACTERI Colony CC + Gr	rd Air		☐ 1 day ☐ 1 day ☐ 1 day ☐ 1 day	□ 2 day □ 2 day e Growth** □ 5 day
Bulk	☐ 1 day ☐ 2 day pe/Micro Vac ☐ 1 day ☐ 2 day	3 day 5 day				14 days	
Billing Comp	pany / City: Apex Tites	(Dallas Sou	(44		# of Sampl	es: 4	
Submitter's Co	The state of the s					te: <i>[al 14]</i>	200
Submitter's N	ame: Clint Joch				Project #:_	7250115	771
Project: 🗘	reak Valley MS, Roo	ms 2355	= 2365	·	Phone #: _		
	rmation: Name: Clint JE					972)989	1-1031
E-mail Results	to: Clint/Duren/Ver	enica			Fax #:		·
Invoice Addre	ss: Veronica				P.O. #:		
*Please review pa	perwork and samples before submitting to lab. U	nsealed / improperly package	ed / damaged / exp	ired samples or exce	ssive administrativ	e requests may in	cur additional fees*
Notes:					···		
Sample #	Sample Descript	ion	Vol. / Area (if applicable)		Location /	/ Notes	
t	Exterior, Southead	5+	75	T=93,00	H= 47	1 %	
2	Exterior Norhaus	·+	75	T=91.00	H= 50.	6.1.	
3	Room 2355		150	T= 83.8	H = 52.	ber M	-11-13 %
				Cailings = C	Coiles J	L	
				Walt	110.	.4	
				710013 =		1- 4	
4	Romes 2365		150				13-20-1
	ASSAL 2303						13 20 15
				Ceivings =	Carres)	1. I.L.	
				W9 85 -	<u>i neetrol</u> N	<u> </u>	
				Floors =	mepu		
			*********	Joseph L	Nall 2	O & M	oisty a
			*********				
					···		
				L			
Released E		Date / Time: ////////////////////////////////////	Received By	1/2 V		Date	Time:
						bute /	

## **ATTACHMENT 2**

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 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 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.

#### 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.

