

DATE: August 1, 2017

TO: Jason Mullin, Assistant Principal

SUBJECT: IAQ - Marcus - HS Air Tests - Rooms S-119 & W-129

I received your E-mail in regards to Room S-119. As you know, the Wall desk leg and wall was replaced. I am having an Air Retest done this week. Should have the results back by Monday 8/8. As far as the carpet, Steven Jones of the West Zone will make that decision on replacement.

I also was made aware of Room W-129. I inspected the room and found about 13 stained ceiling tiles and several missing tiles. I understand that the cause was from a leaking water fountain on the 2nd floor. I have requested the West Zone to replace the ceiling tiles in Room W-129 and in the Hallway also. Along with Room S-119, I am including Room W-129 to be Air Tested.

If you have any questions, please contact me.

Thanks,
Paul

Paul Siddall
Maintenance Energy Auditor (IAQ)
Facility Services
Lewisville ISD
340 Lake Haven Rd
Lewisville, TX 75057
Cell: 469-446-8882

DATE: August 10, 2017

TO: Jason Mullin, Assistant Principal

SUBJECT: Marcus HS - IAQ - Air Test report - Rooms S-119 & W-129

On Friday 8/4, Apex-Titan Air tested Rooms S-119 and W-129. It is typically assumed that indoor spore levels in an area with filtered or air conditioned air, and activity levels associated with schools average below the outdoor levels. Data from the airborne fungi sampling indicated that the total indoor concentration of mold/fungi in Rooms S-119, was 1.6%, in Rooms S-119, was 2.5% 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
340 Lake Haven Rd
Lewisville, TX 75057



August 10, 2017

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

Re: Limited Mold Assessment Services
Marcus High School
Rooms S-119 and W-129
5707 Morriss Road
Flower Mound, Texas
LISD PO No. 91742268-00
Apex Project No. 725010727070A

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 Marcus High School located at 5707 Morriss Road in Flower Mound, 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 August 4, 2017. 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 S-119 and W-129. 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. P725010727095) dated August 1, 2017. 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's Mold Assessment Site reconnaissance was performed on August 4, 2017 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 ranged from 73.5 – 74.4 Fahrenheit while relative humidity ranged from 42.3 to 54.2. Temperature readings collected outside the building ranged from 90.8 to 95.7 degrees Fahrenheit while outside relative humidity ranged from 34.2 to 44.5 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 room S-119 ranged from 11-14% which is considered normal by the manufacturer. Moisture meter readings taken from the walls within the room W-129 ranged from 12-90% which is considered normal to excessive by the manufacturer.

Air Monitoring Results

Apex collected one (1) sample from the interior within each of the investigation areas 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 S-119

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 74 counts/m³, while the exterior level ranged from 4,326 to 4,519 counts/m³.

One type of mold was identified at a higher concentration within the investigation area as compared to the samples collected from the exterior of the building. Air sample(s) collected within the room S-119 reported Aspergillus/Penicillium as 40 counts/m³ while no exterior levels were reported.

Room W-129

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 115 counts/m³, while the exterior level ranged from 4,326 to 4,519 counts/m³.

One type of mold was identified at a higher concentration within the investigation area as compared to the samples collected from the exterior of the building. Air sample(s) collected within the room W-129 reported Aspergillus/Penicillium as 47 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, odors or excessive dust were present within the classrooms during the inspection.

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 affected sheetrock and the computer counter top support should be removed and replaced.

If you have any questions regarding this report or if we can assist you with any other matter, please contact the undersigned at (469) 365-1140.

Sincerely,
Apex TITAN, Inc.



Clinton S. Jech
Manager, Field Services
Texas Mold Assessment Technician, Lic. No. MAT1075



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

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
Project : Marcus HS Rooms S-119 and W-129
Project # : 725010727
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: ASTM D7391-09 - Standard Profile

Lab Job No. : 17F-09152
Report Date : 08/08/2017 1:02 PM
Sample Date: 08/04/2017
Spore Trap Type: Zefon - Air-O-Cell

Page 1 of 3

On 8/4/2017, four (4) samples were submitted by Clint Jech of Apex Titan, Inc. - Dallas (located at 12100 Ford. Rd., Suite 401, Farmers Branch, TX 75234) 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	Exterior North * See Analytical Notes report for further details	Basidiospores Cladosporium Cercospora Alternaria Ascospores Coprinus group Myxomycete / Rust / Smut Fusarium Drechslera / Bipolaris group Curvularia Agaricales group Hyphal / Spore Fragments - Dematiaceous Pithomyces <div style="text-align: right;">Total:</div>	2160 50% 1413 33% 167 4% 133 3% 100 2% 87 2% 80 2% 53 1% 53 1% 40 <1% 20 <1% 13 <1% 7 <1% 4326 100%



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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
2	150	Exterior Northwest	Basidiospores	2000 44%
			Cladosporium	1671 37%
			Alternaria	207 5%
			Cercospora	187 4%
			Nigrospora	113 3%
			Coprinus group	67 1%
			Myxomycete / Rust / Smut	67 1%
			Ascospores	53 1%
			Fusarium	47 1%
			Drechslera / Bipolaris group	40 <1%
			Curvularia	27 <1%
			Hyphal / Spore Fragments - Dematiaceous	20 <1%
			Pithomyces	13 <1%
			Agaricales group	7 <1%
			Total:	4519 100%
3	150	Room S-119	Aspergillus / Penicillium	40 54%
			Myxomycete / Rust / Smut	13 18%
			Hyphal / Spore Fragments - Dematiaceous	7 9%
			Coprinus group	7 9%
			Basidiospores	7 9%
			Total:	74 100%



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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
4	150	Room W-129	Aspergillus / Penicillium Cladosporium Hyphal / Spore Fragments - Dematiaceous Coprinus group Drechslera / Bipolaris group Curvularia Ascospores Total:	47 41% 33 29% 7 6% 7 6% 7 6% 7 6% 7 6% 115 100%

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 the results contained herein. Interpretation should be made by a qualified professional.

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

Analyst(s): Mushtaq Khan

Lab Manager : Heather Lopez

Lab Director : Bruce Crabb

Approved Signatory :

Approved Signatory :

Thank you for choosing Moody Labs

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IAQ Mold Report

Data Detail

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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Lab Job No. : 17F-09152
Report Date : 08/08/2017 1:02 PM
Sample Date: 08/04/2017
Spore Trap Type: Zefon - Air-O-Cell

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

Sample ID:	1					2					3				
Location:	Exterior North					Exterior Northwest					Room S-119				
Media Expires On:	May 2018					May 2018					May 2018				
Notes Included:	See Analytical Notes														
Volume:	150					150					150				
	raw ct.	RL	spores/m ³	%total	spores/m ³ SF	raw ct.	RL	spores/m ³	%total	spores/m ³ SF	raw ct.	RL	spores/m ³	%total	spores/m ³ SF
Agaricales group	3	7	20	<1%	20	1	7	7	<1%	7					
Alternaria	20	7	133	3%	130	31	7	207	5%	210					
Ascospores	15	7	100	2%	100	8	7	53	1%	50					
Aspergillus / Penicillium											6	7	40	54%	40
Basidiospores	108	20	2160	50%	2200	110	18	2000	44%	2000	1	7	7	9%	7
Cercospora	25	7	167	4%	170	28	7	187	4%	190					
Chaetomium															
Cladosporium	106	13	1413	33%	1400	117	14	1671	37%	1700					
Coprinus group	13	7	87	2%	87	10	7	67	1%	67	1	7	7	9%	7
Curvularia	6	7	40	<1%	40	4	7	27	<1%	30					
Drechslera / Bipolaris group	8	7	53	1%	50	6	7	40	<1%	40					
Fusarium	8	7	53	1%	50	7	7	47	1%	50					
Hyphal / Spore Fragments - Dematiace	2	7	13	<1%	10	3	7	20	<1%	20	1	7	7	9%	7
Hyphal / Spore Fragments - Hyaline															
Memnoniella															
Myxomycete / Rust / Smut	12	7	80	2%	80	10	7	67	1%	67	2	7	13	18%	10
Nigrospora						17	7	113	3%	110					
Pithomyces	1	7	7	<1%	7	2	7	13	<1%	10					
Stachybotrys															
TOTALS	327		4326	100%	4300	354		4519	100%	4500	11		74	100%	74
Analyst	Mushtaq Khan					Mushtaq Khan					Mushtaq Khan				
Analysis Date	8/8/2017					8/8/2017					8/8/2017				
Debris Rating	3					3					3				
Debris Composition															
Fibers	1/5					1/5					2/5				
Inorganic/Other	3/5					3/5					3/5				
Insect Parts	1/5					0/5					0/5				
Pollen	1/5					1/5					0/5				
Skin/Dander	0/5					0/5					3/5				



IAQ Mold Report

Data Detail

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Lab Job No. : 17F-09152
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Sample Date: 08/04/2017
Spore Trap Type: Zefon - Air-O-Cell

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Sample ID:	4																		
Location:	Room W-129																		
Media Expires On:	May 2018																		
Notes Included:																			
Volume:	150																		
	raw ct.	RL	spores/m ³	%total	spores/m ³ SF														
Agaricales group																			
Alternaria																			
Ascospores	1	7	7	6%	7														
Aspergillus / Penicillium	7	7	47	41%	50														
Basidiospores																			
Cercospora																			
Chaetomium																			
Cladosporium	5	7	33	29%	30														
Coprinus group	1	7	7	6%	7														
Curvularia	1	7	7	6%	7														
Drechslera / Bipolaris group	1	7	7	6%	7														
Fusarium																			
Hyphal / Spore Fragments - Dematiace	1	7	7	6%	7														
Hyphal / Spore Fragments - Hyaline																			
Memnoniella																			
Myxomycete / Rust / Smut																			
Nigrospora																			
Pithomyces																			
Stachybotrys																			
TOTALS	17		115	100%	120														
Analyst	Mushtaq Khan																		
Analysis Date	8/8/2017																		
Debris Rating	3																		
Debris Composition																			
Fibers	2/5																		
Inorganic/Other	3/5																		
Insect Parts	0/5																		
Pollen	0/5																		
Skin/Dander	3/5																		

End of Data Detail section
17F-09152

SMLMS v12.31

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IAQ Mold Report

Analytical Notes

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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Spore Trap Type: Zefon - Air-O-Cell

Page 1 of 2

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Samples Analyzed

Sample No: 1 : Exterior North

Notes: Please note: the minimum detection limit for Cladosporium is 13 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Basidiospores is 20 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Field Blanks

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

NOTE: All remaining samples suitable for analysis.

Methods

Method: ASTM D7391-09. A standard spore trap reading consists of a 30% reading for small spores; 100% of the sample is read for medium and large spores. A 100% reading is provided for containment samples, upon request, or otherwise as noted. Use final spore concentrations, not raw spore counts, for interpretation of results.

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

Note: RL (Reporting Limit) is 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
- 11 - Modified Analysis per Client Instructions

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



IAQ Mold Report

Analytical Notes

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LAB # 102577



End of Analytical Notes section

17F-09152



Chain of Custody

Lab Job # TF-09152A 2014
Lab Job #
Lab Job #

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

ASBESTOS PLM

Bulk [] Immediate [] 1 day [] 2 day [] 3 day [] 5 day
[] Analyze All [] Positive Stop

PCM Air (7400)

[] Immediate [] 1 day [] 2 day [] 3 day [] 5 day

TOTAL DUST(0500/0600)

[] 1 day [] 2 day

ASBESTOS TEM

Air AHERA Method [] Late Night* [] 6 hr [] 12 hr [] 24 hr
Air 7402 (Modified) [] 1 day [] 2 day [] 3 day
Bulk [] 1 day [] 2 day [] 3 day [] 5 day
Water/Wipe/Micro Vac [] 1 day [] 2 day [] 3 day
Analyze Blanks [] Yes [] No

*Late night analysis surcharges apply

MOLD

Direct Exam [] Immediate [] 1 day [] 2 day
Standard Air [] Immediate [] 1 day [x] 2 day
Expanded Air [] Immediate [] 1 day [] 2 day
Culture** [] 10-14 days
Analyze Blanks [] Yes [] No

Turnaround of Culture Samples subject to Culture Growth

BACTERIA**

Colony Counts (CC) [] 3 day [] 5 day
CC + Gram Stain [] 3 day [] 5 day
Coliform & E. coli (P/A) [] 2-3 day
Legionella [] 14 days

OTHER:

Billing Company / City: Apex Titan, Inc.

of Samples: 4

Submitter's Company:

Sample Date: 8/4/2017 0704

Submitter's Name: Clinton S. Jech

Project #: 725010727

Project: Marcus HS Rooms S-119 and W-129

Phone #:

Contact Information: Name: Clint Jech

Mobile #: (972) 989-1031

E-mail Results to: Clint/Doreen/Veronica

Fax #:

Invoice Address: Veronica

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:

Table with 4 columns: Sample #, Sample Description, Vol. / Area (if applicable), Location / Notes. Contains 4 rows of data with handwritten values for temperature and humidity.

Released By: [Signature] Date / Time: 8/4/2017 1658 Received By: [Signature] Date / Time: 8/4/17 3:53 PM

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.