



# HYGIENETECH

Hygiene Technologies International, Inc.

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August 14, 2014

California State Board of Equalization  
450 N Street  
Sacramento, California 94279

Document No. 21407001.1

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Surveys  
July 2014 Random Sampling

Dear Mr. Gau:

On July 8, 14, 23, and 30, 2014, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted limited fungal growth exposure assessment surveys involving 22 randomly selected areas located within the California State Board of Equalization (BOE) building. The findings of the surveys, along with the analytical data, conclusions, and recommendations when applicable, appear below.

On the survey dates, air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump Plus™ equipped with Air-O-Cell™ cassettes. All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. The airborne fungi assessment analytical data with supporting and background information appear in the enclosed table.

As presented in Table 21407001-1, the airborne spore count data recorded showed fungal spore types outdoors such as *Alternaria*, ascospores, basidiospores, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Nigrospora*, *Oidum*, rusts, and/or smuts. In the indoor areas tested, the data showed that airborne fungal spores were either not detected at or above the laboratory detection limit indicated or were detected at low airborne concentrations. The fungal spore types found indoor included *Alternaria*, basidiospores, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Nigrospora*, other brown, rusts, and/or smuts. The distribution of fungal spore types detected in the surveyed areas was consistent with those found outdoors, and the overall data within the tested areas were well below the overall outdoor data recorded. These data are considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected.

Be advised that the data provided in this report only represent limited fungal growth and exposure potentials that existed at the time these surveys were performed and at the precise sample locations

Mr. David Gau  
August 14, 2014  
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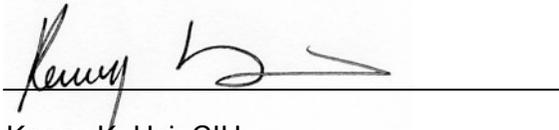


indicated. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that were not specifically assessed during the surveys.

If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

**HYGIENE TECHNOLOGIES INTERNATIONAL, INC.**

A handwritten signature in black ink, appearing to read "Kenny K. Hsi", is written over a horizontal line.

Kenny K. Hsi, CIH  
Technical Director

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

# APPENDIX A



CLIENT: California State Board of Equalization  
450 N Street  
Sacramento, California 94279

TABLE 21407001-1  
AIRBORNE TOTAL FUNGI RESULTS  
450 N STREET  
SACRAMENTO, CALIFORNIA  
JULY 8, 14, 23, AND 30, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21407001-1 TM01OUT	21407001-1 TM02	21407001-1 TM03	21407001-1 TM04
<b>SAMPLING LOCATION/ACTIVITIES</b>	Outdoors; about 15 feet east of building; approximately five feet above ground/Normal outdoor activities	6 <sup>th</sup> Floor; Room 616; about three feet southeast of entry door; approximately five feet above floor/Sampling activities only	9 <sup>th</sup> Floor; Column K18 area; Cubicle 34 entry area; approximately five feet above floor/Normal office activities	11 <sup>th</sup> Floor; Column J21 area; Cubicle 11; about center; approximately five feet above floor/Normal office activities
<b>DATE</b>	07/08/14	07/08/14	07/08/14	07/08/14
<b>START/STOP</b>	14:56:00/15:01:00	15:06:00/15:11:00	15:14:00/15:19:00	15:23:00/15:28:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	13			
Ascospores	160			
Basidiospores	690			
Bipolaris/Drechslera group				
Botrytis				
Chaetomium	40			
Cladosporium	1,400	53	53	
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				
Oidium				
Other brown				
Other colorless				
Penicillium/Aspergillus types	270			
Pithomyces				
Rusts	27	27		
Smuts (Periconia, Myxomycetes)	93			
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	53	27	<13	<13
Background debris*	2+	2+	2+	2+
<b>TOTAL**</b>	2,700	80	53	<13

\*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

\*\*Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

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450 N STREET  
SACRAMENTO, CALIFORNIA  
JULY 8, 14, 23, AND 30, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21407001-1 TM05	21407001-1 TM06	21407001-1 TM07OUT	21407001-1 TM08
<b>SAMPLING LOCATION/ACTIVITIES</b>	17 <sup>th</sup> Floor; Column K21 area; about seven feet west of Column K21; approximately five feet above floor/Normal office activities	20 <sup>th</sup> Floor; Break Room 2008; approximately five feet above floor/Normal office activities	Outdoors; about 10 feet south of building; approximately five feet above ground/Normal outdoor activities	3 <sup>rd</sup> Floor; Break Room 320; about center; approximately five feet above floor/Normal office activities
<b>DATE</b>	07/08/14	07/08/14	07/14/14	07/14/14
<b>START/STOP</b>	15:31:00/15:36:00	15:39:00/15:44:00	09:55:00/10:00:00	10:08:00/10:13:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	13		67	
Ascospores			160	
Basidiospores			110	
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium			1,100	
Curvularia				
Epicoccum				
Fusarium				
Nigrospora	13			
Oidium				
Other brown				
Penicillium/Aspergillus types			110	
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)		27	210	13
Stachybotrys				
Stemphylium				
Torula				
Trichocladium				
Ulocladium				
Zygomycetes				
Hyphal fragments	<13	<13	40	<13
Background debris*	2+	2+	3+	2+
<b>TOTAL**</b>	27	27	1,700	13

\*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

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SACRAMENTO, CALIFORNIA  
JULY 8, 14, 23, AND 30, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21407001-1 TM09	21407001-1 TM10	21407001-1 TM11	21407001-1 TM12
<b>SAMPLING LOCATION/ACTIVITIES</b>	7 <sup>th</sup> Floor; Column N22 area; about 10 feet south of Column N22; approximately five feet above floor/Normal office activities	14 <sup>th</sup> Floor; Column N20 area; about two feet east of Column N20; approximately five feet above floor/Normal office activities	16 <sup>th</sup> Floor; Elevator Lobby; approximately five feet above floor/Normal office activities	19 <sup>th</sup> Floor; Conference Room 1909; about center; approximately five feet above floor/Normal office activities
<b>DATE</b>	07/14/14	07/14/14	07/14/14	07/14/14
<b>START/STOP</b>	10:18:00/10:23:00	10:27:00/10:32:00	10:36:00/10:41:00	10:43:00/10:48:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Arthrinium				
Ascospores				
Basidiospores				
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	53			53
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				
Oidium				
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)				
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	13	<13	<13	<13
Background debris*	2+	1+	2+	2+
<b>TOTAL**</b>	53	<13	<13	53

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SACRAMENTO, CALIFORNIA  
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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21407001-1 TM13	21407001-1 TM14OUT	21407001-1 TM15	21407001-1 TM16
<b>SAMPLING LOCATION/ACTIVITIES</b>	24 <sup>th</sup> Floor; Column N22 area; Cubicle 21, about center; approximately five feet above floor/Normal office activities	Outdoors; about 10 feet east of building; approximately five feet above ground/Normal outdoor activities	2 <sup>nd</sup> Floor; Column N19 area; about 10 feet southwest of Column N19; approximately five feet above floor/Normal office activities	5 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities
<b>DATE</b>	07/14/14	07/23/14	07/23/14	07/23/14
<b>START/STOP</b>	10:55:00/11:00:00	14:55:00/15:00:00	15:05:00/15:10:00	15:14:00/15:19:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria		13	13	
Ascospores				
Basidiospores				
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium		160		53
Curvularia				
Epicoccum				
Nigrospora				
Oidium		13		
Other brown				
Other colorless				
Penicillium/Aspergillus types				53
Pithomyces				
Rusts		150		
Smuts (Periconia, Myxomycetes)		13		
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	<13	210	<13	<13
Background debris*	1+	2+	2+	2+
<b>TOTAL**</b>	<13	390	13	110

\*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21407001-1 TM17	21407001-1 TM18	21407001-1 TM19	21407001-1 TM20OUT
<b>SAMPLING LOCATION/ACTIVITIES</b>	8 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	15 <sup>th</sup> Floor; Break Room 1504; about center; approximately five feet above floor/Normal office activities	22 <sup>nd</sup> Floor; Column O22 area; about five feet south of Column O22; approximately five feet above floor/Normal office activities	Outdoors; about 10 feet southeast of building; approximately five feet above ground/Normal outdoor activities
<b>DATE</b>	07/23/14	07/23/14	07/23/14	07/30/14
<b>START/STOP</b>	15:21:00/15:26:00	15:28:00/15:33:00	15:41:00/15:46:00	09:19:00/09:24:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria			27	13
Ascospores				1,600
Basidiospores				850
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium			53	1,700
Curvularia				
Epicoccum				
Fusarium				
Myrothecium				
Nigrospora				13
Oidium				
Other brown				
Penicillium/Aspergillus types				5,600
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)			13	290
Stemphylium				
Stachybotrys				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	<13	13	<13	53
Background debris*	2+	2+	2+	2+
<b>TOTAL**</b>	<13	<13	93	10,000

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21407001-1 TM21	21407001-1 TM22	21407001-1 TM23	21407001-1 TM24
<b>SAMPLING LOCATION/ACTIVITIES</b>	1 <sup>st</sup> Floor; Print Room 139 ; adjacent to computer work station area; approximately five feet above floor/Normal office activities	4 <sup>th</sup> Floor; Column K17; Cubicle 76; southeastern corner; approximately five feet above floor/Normal office activities	10 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	18 <sup>th</sup> Floor; Column K21; Cubicle 41; about center; approximately five feet above floor/Normal office activities
<b>DATE</b>	07/30/14	07/30/14	07/30/14	07/30/14
<b>START/STOP</b>	09:29:00/09:34:00	09:41:00/09:46:00	09:49:00/09:54:00	09:58:00/10:03:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria			27	
Ascospores				
Basidiospores	53			
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium			53	
Curvularia				
Epicoccum				
Fusarium				
Myrothecium				
Nigrospora				
Oidium				
Other brown			13	
Penicillium/Aspergillus types				
Pithomyces				
Rusts			13	
Smuts (Periconia, Myxomycetes)				
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	<13	<13	<13	<13
Background debris*	1+	2+	2+	1+
<b>TOTAL**</b>	53	<13	110	40

\*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

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450 N STREET  
SACRAMENTO, CALIFORNIA  
JULY 8, 14, 23, AND 30, 2014

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SAMPLE NUMBER	21407001-1 TM25	21407001-1 TM26		
<b>SAMPLING LOCATION/ACTIVITIES</b>	21 <sup>st</sup> Floor; Column L22; about seven feet west of Column L22 center; approximately five feet above floor/Normal office activities	23 <sup>rd</sup> Floor; Column K21 area; about seven feet northwest of Column K21; approximately five feet above floor/Sampling activities only	This column intentionally left blank	This column intentionally left blank
<b>DATE</b>	07/30/14	07/30/14		
<b>START/STOP</b>	10:08:00/10:13:00	10:20:00/10:25:00		
<b>SAMPLE TIME</b>	5 minutes	5 minutes		
Alternaria	13			
Ascospores				
Basidiospores				
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	110			
Curvularia				
Epicoccum				
Helicoma				
Myrothecium				
Nigrospora				
Oidium				
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	13			
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	<13	<13		
Background debris*	2+	<1+		
<b>TOTAL**</b>	130	<13		

\*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

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Report for:

**Mr. Kenny Hsi, Mr. Lakhpreet Sandhu**  
**Hygiene Technologies International, Inc.**  
3625 Del Amo Boulevard, Suite 180  
Torrance, CA 90503-8370

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Regarding: Project: 21407001-1  
EML ID: 1230975

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 07-10-2014

Service SOPs: Spore trap analysis (1038)  
AIHA-LAP, LLC accredited service, Lab ID #179768

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All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1Date of Sampling: 07-08-2014  
Date of Receipt: 07-09-2014  
Date of Report: 07-10-2014**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM01 OUT		21407001-1 TM02		21407001-1 TM03	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5601165-1		5601166-1		5601167-1	
Analysis Date:	07/10/2014		07/10/2014		07/10/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	1	13				
Ascospores	3	160				
Basidiospores	13	690				
Botrytis						
Chaetomium	3	40				
Cladosporium	27	1,400	1	53	1	53
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†	5	270				
Pithomyces						
Rusts	2	27	2	27		
Smuts, Periconia, Myxomycetes	7	93				
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	53		27		< 13	
Pollen/m3	27		13		< 13	
Skin cells (1-4+)	< 1+		< 1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>2,700</b>		<b>80</b>		<b>53</b>

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1Date of Sampling: 07-08-2014  
Date of Receipt: 07-09-2014  
Date of Report: 07-10-2014**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM04		21407001-1 TM05		21407001-1 TM06	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5601168-1		5601169-1		5601170-1	
Analysis Date:	07/10/2014		07/10/2014		07/10/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria			1	13		
Ascospores						
Basidiospores						
Botrytis						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora			1	13		
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes					2	27
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		< 13		27		27

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

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C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1

Date of Sampling: 07-08-2014  
Date of Receipt: 07-09-2014  
Date of Report: 07-10-2014

**MoldRANGE™: Extended Outdoor Comparison**  
**Outdoor Location: 21407001-1 TM01 OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: July in California† (n‡=16905)						Typical Outdoor Data for: The entire year in California† (n‡=200710)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	13	13	13	27	67	93	62	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	53	14	7	13	13	27	40	12
Chaetomium	40	8	13	13	27	47	25	8	13	13	27	47	19
Cladosporium	1,400	160	270	670	1,500	2,400	98	110	210	610	1,600	2,800	97
Curvularia	-	7	13	13	33	53	8	7	13	13	27	53	6
Nigrospora	-	7	13	13	25	40	6	7	13	13	27	53	8
Penicillium/Aspergillus types	270	53	100	210	590	960	85	53	100	210	590	1,000	84
Stachybotrys	-	8	13	13	40	80	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	15	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	160	13	40	80	210	370	68	25	53	110	360	690	71
Basidiospores	690	38	53	160	370	640	89	53	80	260	990	2,300	93
Rusts	27	13	13	13	53	80	29	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	93	13	13	47	120	200	72	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>2,700</b>												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-08-2014  
 Date of Receipt: 07-09-2014  
 Date of Report: 07-10-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Outdoor Summary: 21407001-1 TM01 OUT:**

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Alternaria					7 - 33 - 600	45
Ascospores					13 - 210 - 5,800	76
Basidiospores					19 - 450 - 24,000	92
Chaetomium					7 - 13 - 160	9
Cladosporium					27 - 470 - 10,000	90
Penicillium/Aspergillus types					13 - 170 - 2,700	68
Rusts					7 - 20 - 360	20
Smuts, Periconia, Myxomycetes					7 - 53 - 930	64
<b>Total</b>						

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

**Indoor Samples**

**Location: 21407001-1 TM02**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 2%	dF: 4 Result: 1.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.4000	dF: 8 Result: 0.3750 Critical value: 0.6190 Outside Similar: No	Score: 101 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Cladosporium				
	Rusts				
	<b>Total</b>				

**Location: 21407001-1 TM03**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 1%	dF: 4 Result: 1.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2222	dF: 8 Result: 0.6667 Critical value: 0.6190 Outside Similar: Yes	Score: 102 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Cladosporium				
	<b>Total</b>				

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-08-2014  
 Date of Receipt: 07-09-2014  
 Date of Report: 07-10-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21407001-1 TM04

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 4 Result: 1.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>				
		< 13		

**Location:** 21407001-1 TM05

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 4 Result: 1.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: -0.2875 Critical value: 0.5833 Outside Similar: No	Score: 110 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
Alternaria		13		
Nigrospora		13		
<b>Total</b>		<b>27</b>		

**Location:** 21407001-1 TM06

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 4 Result: 1.4000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2222	dF: 8 Result: 0.2857 Critical value: 0.6190 Outside Similar: No	Score: 105 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
Smuts, Periconia, Myxomycetes		27		
<b>Total</b>		<b>27</b>		

\* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1

Date of Sampling: 07-08-2014  
Date of Receipt: 07-09-2014  
Date of Report: 07-10-2014

### **MoldSTAT™: Supplementary Statistical Spore Trap Report**

\*\* An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H<sub>0</sub>) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&K reserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-08-2014  
 Date of Receipt: 07-09-2014  
 Date of Report: 07-10-2014

**MoldSCORE™: Spore Trap Report**

**Outdoor Sample:** 21407001-1 TM01 OUT

Fungi Identified	Outdoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
<b>Generally able to grow indoors*</b>						
Alternaria					1	13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					3	40
Cladosporium					27	1,400
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					5	270
Stachybotrys					ND	< 13
Torula					ND	< 13
<b>Seldom found growing indoors**</b>						
Ascospores					3	160
Basidiospores					13	690
Rusts					2	27
Smuts, Periconia, Myxomycetes					7	93
<b>Total</b>						<b>2,733</b>

**Location:** 21407001-1 TM02

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
<b>Generally able to grow indoors*</b>						
Alternaria					ND	< 13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					1	53
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					ND	< 13
Stachybotrys					ND	< 13
Torula					ND	< 13
<b>Seldom found growing indoors**</b>						
Ascospores					ND	< 13
Basidiospores					ND	< 13
Rusts					2	27
Smuts, Periconia, Myxomycetes					ND	< 13
<b>Total</b>						<b>80</b>

MoldSCORE‡			
100	200	300	Score
			100
			100
			100
			101
			100
			100
			100
			100
			100
			100
			100
			110
			100
<b>Final MoldSCORE</b>			<b>101</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-08-2014  
 Date of Receipt: 07-09-2014  
 Date of Report: 07-10-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM03

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				102
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>53</b>				
							<b>Final MoldSCORE</b>			<b>102</b>

**Location:** 21407001-1 TM04

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				
							<b>Final MoldSCORE</b>			<b>100</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-08-2014  
 Date of Receipt: 07-09-2014  
 Date of Report: 07-10-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM05

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria	█				1	13	█			105
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium					ND	< 13	█			100
Curvularia					ND	< 13	█			100
Nigrospora	█				1	13	█			105
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>27</b>				
							<b>Final MoldSCORE</b>			<b>110</b>

**Location:** 21407001-1 TM06

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13	█			100
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium					ND	< 13	█			100
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes	█				2	27	█			105
<b>Total</b>						<b>27</b>				
							<b>Final MoldSCORE</b>			<b>105</b>

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1

Date of Sampling: 07-08-2014  
Date of Receipt: 07-09-2014  
Date of Report: 07-10-2014

### **MoldSCORE™: Spore Trap Report**

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

**Mr. Kenny Hsi, Mr. Lakhpreet Sandhu**  
**Hygiene Technologies International, Inc.**  
3625 Del Amo Boulevard, Suite 180  
Torrance, CA 90503-8370

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Regarding: Project: 21407001-1  
EML ID: 1232940

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 07-14-2014

Service SOPs: Spore trap analysis (1038)  
AIHA-LAP, LLC accredited service, Lab ID #179768

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All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM07 OUT		21407001-1 TM08		21407001-1 TM09		21407001-1 TM10	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	5610070-1		5610071-1		5610072-1		5610073-1	
Analysis Date:	07/14/2014		07/14/2014		07/14/2014		07/14/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	5	67						
Ascospores	3	160						
Basidiospores	2	110						
Chaetomium								
Cladosporium	20	1,100			1	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†	2	110						
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	16	210	1	13				
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	3+		2+		2+		1+	
Hyphal fragments/m3	40		< 13		13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+		< 1+	
Sample volume (liters)	75		75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>1,700</b>		<b>13</b>		<b>53</b>		<b>&lt; 13</b>

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.  
 † The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.  
 ††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  
 ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".  
 § Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM11		21407001-1 TM12		21407001-1 TM13	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5610074-1		5610075-1		5610076-1	
Analysis Date:	07/14/2014		07/14/2014		07/14/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria						
Ascospores						
Basidiospores						
Botrytis						
Chaetomium						
Cladosporium			1	53		
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		1+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		< 1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		< 13		53		< 13

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.  
 † The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.  
 ††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.  
 ‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".  
 § Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1

Date of Sampling: 07-14-2014  
Date of Receipt: 07-14-2014  
Date of Report: 07-15-2014

**MoldRANGE™: Extended Outdoor Comparison**  
**Outdoor Location: 21407001-1 TM07 OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: July in California† (n‡=16905)						Typical Outdoor Data for: The entire year in California† (n‡=200710)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	67	13	13	27	67	93	62	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	53	14	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	47	25	8	13	13	27	47	19
Cladosporium	1,100	160	270	670	1,500	2,400	98	110	210	610	1,600	2,800	97
Curvularia	-	7	13	13	33	53	8	7	13	13	27	53	6
Nigrospora	-	7	13	13	25	40	6	7	13	13	27	53	8
Penicillium/Aspergillus types	110	53	100	210	590	960	85	53	100	210	590	1,000	84
Stachybotrys	-	8	13	13	40	80	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	15	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	160	13	40	80	210	370	68	25	53	110	360	690	71
Basidiospores	110	38	53	160	370	640	89	53	80	260	990	2,300	93
Rusts	-	13	13	13	53	80	29	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	210	13	13	47	120	200	72	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>1,700</b>												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Outdoor Summary: 21407001-1 TM07 OUT:**

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Alternaria				67	7 - 33 - 600	45
Ascospores				160	13 - 210 - 5,900	76
Basidiospores				110	19 - 450 - 24,000	92
Cladosporium				1,100	27 - 470 - 10,000	90
Penicillium/Aspergillus types				110	13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes				210	7 - 53 - 930	63
<b>Total</b>				1,700		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

**Indoor Samples**

**Location: 21407001-1 TM08**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 5 Result: 1.9286 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 0.5571 Critical value: 0.7714 Outside Similar: No	Score: 102 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Smuts, Periconia, Myxomycetes				13
	<b>Total</b>				13

**Location: 21407001-1 TM09**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 3%	dF: 5 Result: 1.9286 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 0.7286 Critical value: 0.7714 Outside Similar: No	Score: 102 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Cladosporium				53
	<b>Total</b>				53

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location: 21407001-1 TM10**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 5 Result: 1.9286 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>		< 13		

**Location: 21407001-1 TM11**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 5 Result: 1.9286 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>		< 13		

**Location: 21407001-1 TM12**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 1.9286 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 0.7286 Critical value: 0.7714 Outside Similar: No	Score: 102 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
Cladosporium		53		
<b>Total</b>		<b>53</b>		

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21407001-1 TM13

<b>% of outdoor total spores/m3</b>	<b>Friedman chi-square* (indoor variation)</b>	<b>Agreement ratio** (indoor/outdoor)</b>	<b>Spearman rank correlation*** (indoor/outdoor)</b>	<b>MoldSCORE**** (indoor/outdoor)</b>
Result: < 1%	dF: 5 Result: 1.9286 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>				< 13

\* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\* An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&K reserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**MoldSCORE™: Spore Trap Report**

**Outdoor Sample:** 21407001-1 TM07 OUT

Fungi Identified	Outdoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
<b>Generally able to grow indoors*</b>						
Alternaria					5	67
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					20	1,100
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					2	110
Stachybotrys					ND	< 13
Torula					ND	< 13
<b>Seldom found growing indoors**</b>						
Ascospores					3	160
Basidiospores					2	110
Rusts					ND	< 13
Smuts, Periconia, Myxomycetes					16	210
<b>Total</b>						<b>1,720</b>

**Location:** 21407001-1 TM08

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
<b>Generally able to grow indoors*</b>						
Alternaria					ND	< 13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					ND	< 13
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					ND	< 13
Stachybotrys					ND	< 13
Torula					ND	< 13
<b>Seldom found growing indoors**</b>						
Ascospores					ND	< 13
Basidiospores					ND	< 13
Rusts					ND	< 13
Smuts, Periconia, Myxomycetes					1	13
<b>Total</b>						<b>13</b>

MoldSCORE‡			
100	200	300	Score
			100
			100
			100
			100
			102
<b>Final MoldSCORE</b>			<b>102</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM09

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				102
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>53</b>				
							<b>Final MoldSCORE</b>	<b>102</b>		

**Location:** 21407001-1 TM10

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				
							<b>Final MoldSCORE</b>	<b>100</b>		

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM11

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

**Location:** 21407001-1 TM12

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				102
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>53</b>				<b>Final MoldSCORE 102</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-14-2014  
 Date of Receipt: 07-14-2014  
 Date of Report: 07-15-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM13

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡		
	<100	1K	10K	>100K			100	200	300
<b>Generally able to grow indoors*</b>									
Alternaria					ND	< 13	█		100
Bipolaris/Drechslera group					ND	< 13	█		100
Chaetomium					ND	< 13	█		100
Cladosporium					ND	< 13	█		100
Curvularia					ND	< 13	█		100
Nigrospora					ND	< 13	█		100
Penicillium/Aspergillus types†					ND	< 13	█		100
Stachybotrys					ND	< 13	█		100
Torula					ND	< 13	█		100
<b>Seldom found growing indoors**</b>									
Ascospores					ND	< 13	█		100
Basidiospores					ND	< 13	█		100
Rusts					ND	< 13	█		100
Smuts, Periconia, Myxomycetes					ND	< 13	█		100
<b>Total</b>						<b>N/A</b>			
								<b>Final MoldSCORE</b>	<b>100</b>

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

**Mr. Kenny Hsi, Mr. Lakhpreet Sandhu**  
**Hygiene Technologies International, Inc.**  
3625 Del Amo Boulevard, Suite 180  
Torrance, CA 90503-8370

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Regarding: Project: 21407001-1  
EML ID: 1237816

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 07-24-2014

Service SOPs: Spore trap analysis (1038)  
AIHA-LAP, LLC accredited service, Lab ID #179768

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All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-23-2014  
 Date of Receipt: 07-24-2014  
 Date of Report: 07-25-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM14OUT		21407001-1 TM15		21407001-1 TM16	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5632453-1		5632454-1		5632455-1	
Analysis Date:	07/24/2014		07/24/2014		07/24/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	1	13	1	13		
Ascospores						
Basidiospores						
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	3	160			1	53
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Oidium	1	13				
Other colorless						
Penicillium/Aspergillus types†					1	53
Pithomyces						
Rusts	11	150				
Smuts, Periconia, Myxomycetes	4	53				
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	210		< 13		< 13	
Pollen/m3	13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>390</b>		<b>13</b>		<b>110</b>

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-23-2014  
 Date of Receipt: 07-24-2014  
 Date of Report: 07-25-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM17		21407001-1 TM18		21407001-1 TM19	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5632456-1		5632457-1		5632458-1	
Analysis Date:	07/24/2014		07/24/2014		07/24/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					2	27
Ascospores						
Basidiospores						
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium					1	53
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes					1	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	< 13		13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>&lt; 13</b>		<b>&lt; 13</b>		<b>93</b>

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1

Date of Sampling: 07-23-2014  
Date of Receipt: 07-24-2014  
Date of Report: 07-25-2014

**MoldRANGE™: Extended Outdoor Comparison**  
**Outdoor Location: 21407001-1 TM14OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: July in California† (n‡=16905)						Typical Outdoor Data for: The entire year in California† (n‡=200710)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	13	13	13	27	67	93	62	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	53	14	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	47	25	8	13	13	27	47	19
Cladosporium	160	160	270	670	1,500	2,400	98	110	210	610	1,600	2,800	97
Curvularia	-	7	13	13	33	53	8	7	13	13	27	53	6
Nigrospora	-	7	13	13	25	40	6	7	13	13	27	53	8
Penicillium/Aspergillus types	-	53	100	210	590	960	85	53	100	210	590	1,000	84
Stachybotrys	-	8	13	13	40	80	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	15	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	-	13	40	80	210	370	68	25	53	110	360	690	71
Basidiospores	-	38	53	160	370	640	89	53	80	260	990	2,300	93
Oidium	13	13	13	13	40	67	21	13	13	13	44	75	19
Rusts	150	13	13	13	53	80	29	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	53	13	13	47	120	200	72	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>390</b>												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-23-2014  
 Date of Receipt: 07-24-2014  
 Date of Report: 07-25-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Outdoor Summary: 21407001-1 TM14OUT:**

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Alternaria				13	7 - 33 - 600	45
Ascospores				< 13	13 - 210 - 5,900	76
Basidiospores				< 13	19 - 450 - 24,000	92
Cladosporium				160	27 - 470 - 10,000	90
Oidium				13	7 - 13 - 210	11
Penicillium/Aspergillus types				< 13	13 - 170 - 2,700	68
Rusts				150	7 - 20 - 360	20
Smuts, Periconia, Myxomycetes				53	7 - 53 - 930	63
<b>Total</b>				390		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

**Indoor Samples**

**Location: 21407001-1 TM15**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 3%	dF: 4 Result: 4.8000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.3333	dF: 5 Result: -0.1000 Critical value: 0.8000 Outside Similar: No	Score: 105 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Alternaria				13
	<b>Total</b>				13

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-23-2014  
 Date of Receipt: 07-24-2014  
 Date of Report: 07-25-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21407001-1 TM16

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 27%	dF: 4 Result: 4.8000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 0.1714 Critical value: 0.7714 Outside Similar: No	Score: 108 Result: Low	
<b>Species Detected</b>		<b>Spores/m3</b>			
		<100	1K	10K	>100K
Cladosporium					53
Penicillium/Aspergillus types					53
<b>Total</b>					<b>110</b>

**Location:** 21407001-1 TM17

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 4 Result: 4.8000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low	
<b>Species Detected</b>		<b>Spores/m3</b>			
		<100	1K	10K	>100K
<b>None Detected</b>					< 13

**Location:** 21407001-1 TM18

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 4 Result: 4.8000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low	
<b>Species Detected</b>		<b>Spores/m3</b>			
		<100	1K	10K	>100K
<b>None Detected</b>					< 13

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-23-2014  
 Date of Receipt: 07-24-2014  
 Date of Report: 07-25-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21407001-1 TM19

<b>% of outdoor total spores/m3</b>	<b>Friedman chi-square* (indoor variation)</b>	<b>Agreement ratio** (indoor/outdoor)</b>	<b>Spearman rank correlation*** (indoor/outdoor)</b>	<b>MoldSCORE**** (indoor/outdoor)</b>	
Result: 23%	dF: 4 Result: 4.8000 Critical value: 9.4877 Inside Similar: Yes	Result: 0.7500	dF: 5 Result: 0.3750 Critical value: 0.8000 Outside Similar: No	Score: 112 Result: Low	
<b>Species Detected</b>		<b>Spores/m3</b>			
		<100	1K	10K	>100K
Alternaria					27
Cladosporium					53
Smuts, Periconia, Myxomycetes					13
<b>Total</b>					93

\* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\* An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&K reserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.



Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-23-2014  
 Date of Receipt: 07-24-2014  
 Date of Report: 07-25-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM16

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13	█			100
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium	█				1	53	█			103
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†	█				1	53	█			108
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>107</b>				
							<b>Final MoldSCORE</b>			<b>108</b>

**Location:** 21407001-1 TM17

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13	█			100
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium					ND	< 13	█			100
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>N/A</b>				
							<b>Final MoldSCORE</b>			<b>100</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-23-2014  
 Date of Receipt: 07-24-2014  
 Date of Report: 07-25-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM18

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13	█			100
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium					ND	< 13	█			100
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

**Location:** 21407001-1 TM19

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria	█				2	27	█	█		110
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium	█				1	53	█	█		103
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes	█				1	13	█	█		102
<b>Total</b>						<b>93</b>				<b>Final MoldSCORE 112</b>

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1

Date of Sampling: 07-23-2014  
Date of Receipt: 07-24-2014  
Date of Report: 07-25-2014

### **MoldSCORE™: Spore Trap Report**

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

**Mr. Kenny Hsi, Mr. Lakhpreet Sandhu**  
**Hygiene Technologies International, Inc.**  
3625 Del Amo Boulevard, Suite 180  
Torrance, CA 90503-8370

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Regarding: Project: 21407001-1  
EML ID: 1241277

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 08-01-2014

Service SOPs: Spore trap analysis (1038)  
AIHA-LAP, LLC accredited service, Lab ID #179768

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All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1

Date of Sampling: 07-31-2014  
Date of Receipt: 08-01-2014  
Date of Report: 08-01-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM20 OUT		21407001-1 TM21		21407001-1 TM22		21407001-1 TM23	
Comments (see below)	A		None		None		None	
Lab ID-Version‡:	5648363-1		5648364-1		5648365-1		5648366-1	
Analysis Date:	08/01/2014		08/01/2014		08/01/2014		08/01/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	1	13					2	27
Ascospores	30	1,600						
Basidiospores	16	850	1	53				
Chaetomium								
Cladosporium	32	1,700					1	53
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora	1	13						
Other brown							1	13
Other colorless								
Penicillium/Aspergillus types†	238	5,600						
Pithomyces								
Rusts							1	13
Smuts, Periconia, Myxomycetes	22	290						
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+		1+		2+		2+	
Hyphal fragments/m3	53		< 13		< 13		< 13	
Pollen/m3	< 13		13		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		1+		1+	
Sample volume (liters)	75		75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>10,000</b>		<b>53</b>		<b>&lt; 13</b>		<b>110</b>

Comments: A) 178 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21407001-1Date of Sampling: 07-31-2014  
Date of Receipt: 08-01-2014  
Date of Report: 08-01-2014**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21407001-1 TM24		21407001-1 TM25		21407001-1 TM26	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5648367-1		5648368-1		5648369-1	
Analysis Date:	08/01/2014		08/01/2014		08/01/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria			1	13		
Ascospores						
Basidiospores						
Chaetomium						
Cladosporium			2	110		
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown	2	27				
Other colorless	1	13				
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes			1	13		
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		2+		< 1+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		< 1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>40</b>		<b>130</b>		<b>&lt; 13</b>

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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**MoldRANGE™: Extended Outdoor Comparison**  
**Outdoor Location: 21407001-1 TM20 OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: July in California† (n‡=16905)						Typical Outdoor Data for: The entire year in California† (n‡=200710)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	13	13	13	27	67	93	62	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	53	14	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	47	25	8	13	13	27	47	19
Cladosporium	1,700	160	270	670	1,500	2,400	98	110	210	610	1,600	2,800	97
Curvularia	-	7	13	13	33	53	8	7	13	13	27	53	6
Nigrospora	13	7	13	13	25	40	6	7	13	13	27	53	8
Other brown	-	13	13	13	40	53	36	13	13	13	40	53	34
Other colorless	-	11	13	13	38	53	5	10	13	13	27	53	5
Penicillium/Aspergillus types	5,600	53	100	210	590	960	85	53	100	210	590	1,000	84
Stachybotrys	-	8	13	13	40	80	5	7	13	13	33	67	4
Torula	-	8	13	13	40	67	15	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	1,600	13	40	80	210	370	68	25	53	110	360	690	71
Basidiospores	850	38	53	160	370	640	89	53	80	260	990	2,300	93
Rusts	-	13	13	13	53	80	29	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	290	13	13	47	120	200	72	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>10,000</b>												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

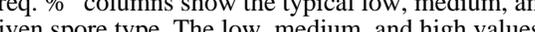
Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-31-2014  
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 Date of Report: 08-01-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

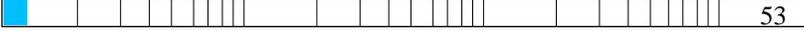
**Outdoor Summary: 21407001-1 TM20 OUT:**

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Alternaria					7 - 33 - 600	45
Ascospores					13 - 210 - 5,900	76
Basidiospores					19 - 450 - 24,000	92
Cladosporium					27 - 470 - 10,000	90
Nigrospora					7 - 13 - 230	16
Penicillium/Aspergillus types					13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes					7 - 53 - 930	63
<b>Total</b>						

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

**Indoor Samples**

**Location: 21407001-1 TM21**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 5 Result: 4.6735 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.3214 Critical value: 0.6786 Outside Similar: No	Score: 105 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Basidiospores				
	<b>Total</b>				

**Location: 21407001-1 TM22**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 5 Result: 4.6735 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	<b>None Detected</b>				

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Date of Sampling: 07-31-2014  
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**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21407001-1 TM23

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 1%	dF: 5 Result: 4.6735 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3636	dF: 9 Result: -0.1375 Critical value: 0.5833 Outside Similar: No	Score: 116 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Alternaria					27
Cladosporium					53
Other brown					13
Rusts					13
<b>Total</b>					110

**Location:** 21407001-1 TM24

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 5 Result: 4.6735 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: 9 Result: -0.2833 Critical value: 0.5833 Outside Similar: No	Score: 116 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Other brown					27
Other colorless					13
<b>Total</b>					40

**Location:** 21407001-1 TM25

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 1%	dF: 5 Result: 4.6735 Critical value: 11.0705 Inside Similar: Yes	Result: 0.6000	dF: 7 Result: 0.0536 Critical value: 0.6786 Outside Similar: No	Score: 107 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Alternaria					13
Cladosporium					110
Smuts, Periconia, Myxomycetes					13
<b>Total</b>					130

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**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21407001-1 TM26

<b>% of outdoor total spores/m3</b>	<b>Friedman chi-square* (indoor variation)</b>	<b>Agreement ratio** (indoor/outdoor)</b>	<b>Spearman rank correlation*** (indoor/outdoor)</b>	<b>MoldSCORE**** (indoor/outdoor)</b>
Result: < 1%	dF: 5 Result: 4.6735 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>				< 13

\* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\* An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

\*\*\* The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

\*\*\*\* MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&K reserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-31-2014  
 Date of Receipt: 08-01-2014  
 Date of Report: 08-01-2014

**MoldSCORE™: Spore Trap Report**

**Outdoor Sample:** 21407001-1 TM20 OUT

Fungi Identified	Outdoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
<b>Generally able to grow indoors*</b>						
Alternaria					1	13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					32	1,700
Curvularia					ND	< 13
Nigrospora					1	13
Penicillium/Aspergillus types†					238	5,600
Stachybotrys					ND	< 13
Torula					ND	< 13
<b>Seldom found growing indoors**</b>						
Ascospores					30	1,600
Basidiospores					16	850
Rusts					ND	< 13
Smuts, Periconia, Myxomycetes					22	290
<b>Total</b>						<b>10,053</b>

**Location:** 21407001-1 TM21

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
<b>Generally able to grow indoors*</b>						
Alternaria					ND	< 13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					ND	< 13
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					ND	< 13
Stachybotrys					ND	< 13
Torula					ND	< 13
<b>Seldom found growing indoors**</b>						
Ascospores					ND	< 13
Basidiospores					1	53
Rusts					ND	< 13
Smuts, Periconia, Myxomycetes					ND	< 13
<b>Total</b>						<b>53</b>

MoldSCORE‡			
100	200	300	Score
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			105
			100
			100
<b>Final MoldSCORE</b>			<b>105</b>

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**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM22

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					ND	< 13				100
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

**Location:** 21407001-1 TM23

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria	█				2	27	█	█	█	111
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium	█				1	53	█	█	█	102
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Other brown	█				1	13	█	█	█	105
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts	█				1	13	█	█	█	105
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>107</b>				<b>Final MoldSCORE 116</b>

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**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM24

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13	█			100
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium					ND	< 13	█			100
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Other brown	█				2	27	█			111
Other colorless	█				1	13	█			105
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>40</b>				<b>Final MoldSCORE 116</b>

**Location:** 21407001-1 TM25

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria	█				1	13	█			105
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium	█				2	110	█			106
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes	█				1	13	█			102
<b>Total</b>						<b>133</b>				<b>Final MoldSCORE 107</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21407001-1

Date of Sampling: 07-31-2014  
 Date of Receipt: 08-01-2014  
 Date of Report: 08-01-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21407001-1 TM26

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡		
	<100	1K	10K	>100K			100	200	300
<b>Generally able to grow indoors*</b>									
Alternaria					ND	< 13	█		100
Bipolaris/Drechslera group					ND	< 13	█		100
Chaetomium					ND	< 13	█		100
Cladosporium					ND	< 13	█		100
Curvularia					ND	< 13	█		100
Nigrospora					ND	< 13	█		100
Penicillium/Aspergillus types†					ND	< 13	█		100
Stachybotrys					ND	< 13	█		100
Torula					ND	< 13	█		100
<b>Seldom found growing indoors**</b>									
Ascospores					ND	< 13	█		100
Basidiospores					ND	< 13	█		100
Rusts					ND	< 13	█		100
Smuts, Periconia, Myxomycetes					ND	< 13	█		100
<b>Total</b>						<b>N/A</b>			
								<b>Final MoldSCORE</b>	<b>100</b>

\* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

\*\* These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.







