



HYGIENETECH

Hygiene Technologies International, Inc.

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April 2, 2013

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

Document No. 21301001.1

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Surveys
January 2013 Random Sampling

Dear Mr. Gau:

On January 7, 18, 22, and 28, 2013, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted limited fungal growth exposure assessment surveys involving twenty two 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 21301001-1, the airborne spore count data recorded showed fungal spore types outdoors such as ascospores, basidiospores, *Bipolaris/Drechslera* group, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Epicoccum*, *Nigrospora*, *Oidium*, rusts, smuts and/or *Ulocladium*. 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 basidiospores, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Epicoccum*, *Oidium*, other brown, 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 generally 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

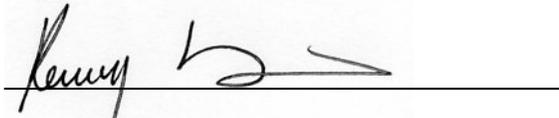


indicated. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that 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 21301001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
JANUARY 7, 18, 22, AND 28, 2013

Page 1

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21301001-1 TM01OUT	21301001-1 TM02	21301001-1 TM03	21301001-1 TM04
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 10 feet south of building; approximately five feet above ground/Normal outdoor activities	4 th Floor; eastern hallway at northern end; approximately five feet above floor/Normal office activities	7 th Floor; about 20 feet northwest of Column K19; about center; approximately five feet above floor/Normal office activities	10 th Floor; Break Room 1004; about center; approximately five feet above floor/Normal office activities
DATE	01/07/13	01/07/13	01/07/13	01/07/13
START/STOP	16:00:00/16:05:00	16:11:00/16:16:00	16:18:00/16:23:00	16:27:00/16:32:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Ascospores	1,400			
Basidiospores	3,700			
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	480	53		
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				
Oidium				
Other brown	13			
Other colorless				
Penicillium/Aspergillus types	640			
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)				
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	<13	<13	13	13
Background debris*	<1+	1+	1+	1+
TOTAL**	6,300	53	<13	<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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**TABLE 21301001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
JANUARY 7, 18, 22, AND 28, 2013**

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Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21301001-1 TM05	21301001-1 TM06	21301001-1 TM07	21301001-1 TM08OUT
SAMPLING LOCATION/ACTIVITIES	17 th Floor; Room 1708; western portion; about center; approximately five feet above floor/Normal office activities	20 th Floor; Elevator Lobby; about center approximately five feet above floor/Normal office activities	24 th Floor; Room 2429; about center; approximately five feet above floor/Sampling activities only	Outdoors; about 10 feet west of building; approximately five feet above ground/Normal outdoor activities
DATE	01/07/13	01/07/13	01/07/13	01/18/13
START/STOP	16:37:00/16:42:00	16:46:00/16:51:00	16:53:00/16:58:00	15:39:00/15:44:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Ascospores				110
Basidiospores		53		430
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				13
Cladosporium		53	53	370
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				13
Oidium				27
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				110
Smuts (Periconia, Myxomycetes)				1,100
Stachybotrys				
Stemphylium				
Torula				
Trichocladium				
Ulocladium				13
Hyphal fragments	<13	<13	<13	27
Background debris*	<1+	2+	<1+	2+
TOTAL**	<13	110	53	2,200

*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
JANUARY 7, 18, 22, AND 28, 2013**

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Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21301001-1 TM09	21301001-1 TM10	21301001-1 TM11	21301001-1 TM12
SAMPLING LOCATION/ACTIVITIES	1 st Floor; Mail Room 143; western portion; about 15 feet south of northern partition wall and about 15 feet east of western perimeter wall; approximately five feet above floor/Normal office activities	5 th Floor; Room 517; about center; approximately five feet above floor/Sampling activities only	8 th Floor; Column M22 area; Cubicle 178; approximately five feet above floor/Normal office activities	9 th Floor; Column K22 area; about 15 feet west of Column K22; approximately five feet above floor/Normal office activities
DATE	01/18/13	01/18/13	01/18/13	01/18/13
START/STOP	15:52:00/15:57:00	16:03:00/16:08:00	16:12:00/16:17:00	16:20:00/16:25:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Arthrinium				
Ascospores				
Basidiospores	53			
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium				
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				
Oidium				13
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)				13
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	13	53	13	<13
Background debris*	1+	1+	1+	1+
TOTAL **	53	<13	<13	27

*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/M³)

SAMPLE NUMBER	21301001-1 TM13	21301001-1 TM14	21301001-1 TM15OUT	21301001-1 TM16
SAMPLING LOCATION/ACTIVITIES	14 th Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	22 nd Floor; Column 022 area; Cubicle 65; about center; approximately five feet above floor/Normal office activities	Outdoors; southwestern corner of the building; approximately five feet above ground/Normal outdoor activities	2 nd Floor; about 20 feet southwest of freight elevator; approximately five feet above floor/Normal office activities
DATE	01/18/13	01/18/13	01/22/13	01/22/13
START/STOP	16:28:00/16:33:00	16:36:00/16:41:00	09:20:00/09:25:00	09:32:00/09:37:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Arthrinium				
Ascospores			53	
Basidiospores	53		640	
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium			530	
Curvularia				
Epicoccum				
Fusarium				
Myrothecium				
Oidium			13	
Other brown			13	
Penicillium/Aspergillus types			590	
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)			53	
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	13	<13	27	<13
Background debris*	2+	2+	2+	1+
TOTAL**	53	<13	1,900	<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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Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21301001-1 TM17	21301001-1 TM18	21301001-1 TM19	21301001-1 TM20
SAMPLING LOCATION/ACTIVITIES	6 th Floor; Break Room 617; about center; approximately five feet above floor/Normal office activities	16 th Floor; northern hallway; about three feet north of northwestern drinking fountain; approximately five feet above floor/Normal office activities	18 th Floor; Break Room 1805; about center; approximately five feet above floor/Normal office activities	21 st Floor; western hallway; approximately five feet above floor/Normal office activities
DATE	01/22/13	01/22/13	01/22/13	01/22/13
START/STOP	09:41:00/09:46:00	09:51:00/09:56:00	10:01:00/10:06:00	10:08:00/10:13:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Arthrinium				
Ascospores				
Basidiospores		160		
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium		53		40
Curvularia				
Epicoccum		13		
Fusarium				
Myrothecium				
Nigrospora				
Oidium				
Other brown			13	13
Penicillium/Aspergillus types		53		13
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)				27
Stachybotrys				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	13	<13	<13	<13
Background debris*	1+	2+	1+	1+
TOTAL**	<13	280	13	93

*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/M³)

SAMPLE NUMBER	21301001-1 TM21OUT	21301001-1 TM22	21301001-1 TM23	21301001-1 TM24
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 10 feet west of building; approximately five feet above ground/Normal outdoor activities	3 rd Floor; Men's Restroom; about center; approximately five feet above floor/Sampling activities only	11 th Floor; southern quadrant; Room 1102; about center; approximately five feet above floor/Normal office activities	15 th Floor; Mail Room 15B; about center; approximately five feet above floor/Normal office activities
DATE	01/28/13	01/28/13	01/28/13	01/28/13
START/STOP	14:35:00/14:40:00	14:48:00/14:53:00	14:58:00/15:03:00	15:05:00/15:10:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Arthrinium				
Ascospores				
Basidiospores	110	53		
Bipolaris/Drechslera group	13			
Botrytis				
Chaetomium				
Cladosporium	270		530	
Curvularia				
Epicoccum	13			
Fusarium				
Myrothecium				
Nigrospora	13		13	
Oidium				
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	67	13		
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	13	13	13	<13
Background debris*	2+	1+	1+	2+
TOTAL **	480	67	550	<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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JANUARY 7, 18, 22, AND 28, 2013

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Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21301001-1 TM25	21301001-1 TM26		
SAMPLING LOCATION/ACTIVITIES	19 th Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	23 rd Floor; northwest stairwell area; about center; approximately five feet above floor/Normal building activities	This column intentionally left blank.	This column intentionally left blank.
DATE	01/28/13	01/28/13		
START/STOP	15:13:00/15:18:00	15:21:00/15:26:00		
SAMPLE TIME	5 minutes	5 minutes		
Alternaria				
Arthrinium				
Ascospores				
Basidiospores	53	53		
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	53	210		
Curvularia				
Epicoccum				
Fusarium				
Myrothecium				
Nigrospora				
Oidium				
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	13	13		
Stachybotrys				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	2+	2+		
Background debris*	<13	<13		
TOTAL **	120	280		

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Report for:

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

Regarding: Project: 21301001-1; Random Sampling (R-1)
EML ID: 1012384

Approved by:

Lab Manager
Malcolm Moody

Dates of Analysis:

Spore trap analysis: 01-08-2013

Service SOPs: Spore trap analysis (1038)
AIHA accredited service

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. Larry Sandhu
 Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
 Date of Receipt: 01-08-2013
 Date of Report: 01-09-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM01 OUT		21301001-1 TM02		21301001-1 TM03		21301001-1 TM04	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	4526765-1		4526766-1		4526767-1		4526768-1	
Analysis Date:	01/08/2013		01/08/2013		01/08/2013		01/08/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	27	1,400						
Basidiospores	69	3,700						
Chaetomium								
Cladosporium	9	480	1	53				
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13						
Other colorless								
Penicillium/Aspergillus types†	12	640						
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	< 1+		1+		1+		1+	
Hyphal fragments/m3	< 13		< 13		13		13	
Pollen/m3	13		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		6,300		53		< 13		< 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. Larry Sandhu
Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
Date of Receipt: 01-08-2013
Date of Report: 01-09-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM05		21301001-1 TM06		21301001-1 TM07	
Comments (see below)	None		None		None	
Lab ID-Version‡:	4526769-1		4526770-1		4526771-1	
Analysis Date:	01/08/2013		01/08/2013		01/08/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores						
Basidiospores			1	53		
Botrytis						
Chaetomium						
Cladosporium			1	53	1	53
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
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	
§ TOTAL SPORES/m3		< 13		110		53

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.
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C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
Date of Receipt: 01-08-2013
Date of Report: 01-09-2013

MoldRANGE™: Extended Outdoor Comparison
Outdoor Location: 21301001-1 TM01 OUT

Fungi Identified	Outdoor data	Typical Outdoor Data for: January in California (n‡=13946)†						Typical Outdoor Data for: The entire year in California (n‡=175031)†					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	25	47	67	37	13	13	27	67	110	55
Bipolaris/Drechslera group	-	7	13	13	25	27	7	7	13	13	27	40	12
Chaetomium	-	7	13	13	27	40	10	8	13	13	27	44	19
Cladosporium	480	110	160	480	1,200	2,100	96	110	210	640	1,700	2,800	97
Curvularia	-	7	13	13	13	27	3	7	13	13	27	53	6
Nigrospora	-	7	13	13	13	28	5	7	13	13	27	53	8
Other brown	13	13	13	13	27	53	31	13	13	13	40	53	35
Penicillium/Aspergillus types	640	53	110	210	600	1,000	85	53	110	210	590	1,000	85
Stachybotrys	-	9	13	13	40	93	3	7	13	13	33	67	4
Torula	-	8	13	13	40	53	5	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	1,400	27	53	160	530	1,000	69	25	53	110	350	690	72
Basidiospores	3,700	53	120	480	2,300	4,800	94	53	80	270	1,000	2,300	94
Rusts	-	8	13	13	40	67	14	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	-	13	13	27	67	110	57	13	13	40	110	200	68
§ TOTAL SPORES/m3	6,300												

†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. Larry Sandhu
 Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
 Date of Receipt: 01-08-2013
 Date of Report: 01-09-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21301001-1 TM01 OUT:

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores					13 - 190 - 5,400	76
Basidiospores					13 - 430 - 22,000	92
Cladosporium					27 - 480 - 10,000	91
Other brown					7 - 13 - 120	25
Penicillium/Aspergillus types					13 - 160 - 2,600	69
Smuts, Periconia, Myxomycetes					7 - 47 - 970	64
Total						

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: 21301001-1 TM02

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 5 Result: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3333	dF: 5 Result: 0.0000 Critical value: 0.8000 Outside Similar: No	Score: 103 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Cladosporium					
Total					

Location: 21301001-1 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: 5 Result: 4.2857 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
None Detected					

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
 Date of Receipt: 01-08-2013
 Date of Report: 01-09-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 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: 5 Result: 4.2857 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
None Detected		< 13		

Location: 21301001-1 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: 5 Result: 4.2857 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
None Detected		< 13		

Location: 21301001-1 TM06

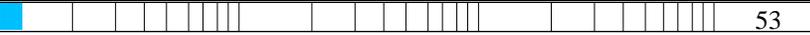
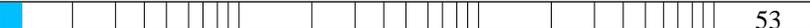
% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.5714	dF: 5 Result: 0.3750 Critical value: 0.8000 Outside Similar: No	Score: 103 Result: Low
Species Detected		Spores/m3		
		<100	1K	10K
				>100K
Basidiospores		53		
Cladosporium		53		
Total		110		

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
 Date of Receipt: 01-08-2013
 Date of Report: 01-09-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 TM07

% 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: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3333	dF: 5 Result: 0.0000 Critical value: 0.8000 Outside Similar: No	Score: 103 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Cladosporium					53
Total					53

* 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. Larry Sandhu
 Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
 Date of Receipt: 01-08-2013
 Date of Report: 01-09-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM03

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
Total						N/A				Final MoldSCORE 100

Location: 21301001-1 TM04

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
Total						N/A				Final MoldSCORE 100

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
 Date of Receipt: 01-08-2013
 Date of Report: 01-09-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM05

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A				Final MoldSCORE 100

Location: 21301001-1 TM06

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					1	53				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						107				Final MoldSCORE 103

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1; Random Sampling (R-1)

Date of Sampling: 01-07-2013
 Date of Receipt: 01-08-2013
 Date of Report: 01-09-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM07

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
Seldom found growing indoors**										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
Total						53				
							Final MoldSCORE			103

*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. Larry Sandhu
Hygiene Technologies International, Inc.
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21301001-1
EML ID: 1017819

Approved by:

Lab Manager
Malcolm Moody

Dates of Analysis:

Spore trap analysis: 01-22-2013 and 01-23-2013

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

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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM08OUT		21301001-1 TM09		21301001-1 TM10		21301001-1 TM11	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	4555918-1		4555919-1		4555920-1		4555921-1	
Analysis Date:	01/22/2013		01/23/2013		01/23/2013		01/23/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	2	110						
Basidiospores	8	430	1	53				
Chaetomium	1	13						
Cladosporium	7	370						
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora	1	13						
Oidium	2	27						
Other colorless								
Penicillium/Aspergillus types†								
Pithomyces								
Rusts	8	110						
Smuts, Periconia, Myxomycetes	85	1,100						
Stachybotrys								
Stemphylium								
Torula								
Ulocladium	1	13						
Zygomycetes								
Background debris (1-4+)††	2+		1+		1+		1+	
Hyphal fragments/m3	27		13		53		13	
Pollen/m3	730		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		< 1+		< 1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		2,200		53		< 13		< 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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM12		21301001-1 TM13		21301001-1 TM14	
Comments (see below)	None		None		None	
Lab ID-Version‡:	4555922-1		4555923-1		4555924-1	
Analysis Date:	01/23/2013		01/23/2013		01/23/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores						
Basidiospores			1	53		
Botrytis						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Oidium	1	13				
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	1	13				
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		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	
§ TOTAL SPORES/m3		27		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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldRANGE™: Extended Outdoor Comparison
Outdoor Location: 21301001-1 TM08OUT

Fungi Identified	Outdoor data	Typical Outdoor Data for: January in California (n‡=13946)†						Typical Outdoor Data for: The entire year in California (n‡=187082)†					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	25	47	67	37	13	13	27	67	110	55
Bipolaris/Drechslera group	-	7	13	13	25	27	7	7	13	13	27	40	12
Chaetomium	13	7	13	13	27	40	10	8	13	13	27	47	19
Cladosporium	370	110	160	480	1,200	2,100	96	110	210	640	1,700	2,800	97
Curvularia	-	7	13	13	13	27	3	7	13	13	27	53	6
Nigrospora	13	7	13	13	13	28	5	7	13	13	27	53	8
Penicillium/Aspergillus types	-	53	110	210	600	1,000	85	53	100	210	590	1,000	85
Stachybotrys	-	9	13	13	40	93	3	7	13	13	33	67	4
Torula	-	8	13	13	40	53	5	8	13	13	40	67	12
Ulocladium	13	8	13	13	27	40	9	8	13	13	27	40	10
Seldom found growing indoors**													
Ascospores	110	27	53	160	530	1,000	69	25	53	110	360	690	71
Basidiospores	430	53	120	480	2,300	4,800	94	53	80	270	1,000	2,400	93
Oidium	27	13	13	13	40	57	9	13	13	13	40	75	19
Rusts	110	8	13	13	40	67	14	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	1,100	13	13	27	67	110	57	13	13	40	110	210	68
§ TOTAL SPORES/m3	2,200												

†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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21301001-1 TM08OUT:

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores				110	13 - 190 - 5,400	77
Basidiospores				430	13 - 430 - 22,000	92
Chaetomium				13	7 - 13 - 160	10
Cladosporium				370	27 - 480 - 10,000	91
Nigrospora				13	7 - 13 - 230	16
Oidium				27	7 - 13 - 230	12
Penicillium/Aspergillus types				< 13	13 - 160 - 2,700	69
Rusts				110	7 - 20 - 340	20
Smuts, Periconia, Myxomycetes				1,100	7 - 47 - 970	64
Ulocladium				13	7 - 13 - 93	4
Total				2,200		

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: 21301001-1 TM09

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 2%	dF: 5 Result: 2.8571 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.5958 Critical value: 0.5833 Outside Similar: Yes	Score: 105 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Basidiospores				53
	Total				53

Location: 21301001-1 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: 2.8571 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
	None Detected				< 13

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 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: 2.8571 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
None Detected				
				< 13

Location: 21301001-1 TM12

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 2.8571 Critical value: 11.0705 Inside Similar: Yes	Result: 0.3636	dF: 9 Result: 0.4833 Critical value: 0.5833 Outside Similar: No	Score: 100 Result: Low
Species Detected		Spores/m3		
		<100	1K	10K
				>100K
Oidium				13
Smuts, Periconia, Myxomycetes				13
Total				27

Location: 21301001-1 TM13

% 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: 5 Result: 2.8571 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.5958 Critical value: 0.5833 Outside Similar: Yes	Score: 105 Result: Low
Species Detected		Spores/m3		
		<100	1K	10K
				>100K
Basidiospores				53
Total				53

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 TM14

% 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: 2.8571 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
None Detected				< 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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM10

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
Total						N/A				Final MoldSCORE 100

Location: 21301001-1 TM11

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
Total						N/A				Final MoldSCORE 100

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM12

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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			
Seldom found growing indoors**										
Ascospores					ND	< 13	100			
Basidiospores					ND	< 13	100			
Oidium					1	13	105			
Rusts					ND	< 13	100			
Smuts, Periconia, Myxomycetes					1	13	100			
Total						27	Final MoldSCORE 100			

Location: 21301001-1 TM13

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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			
Seldom found growing indoors**										
Ascospores					ND	< 13	100			
Basidiospores					1	53	105			
Rusts					ND	< 13	100			
Smuts, Periconia, Myxomycetes					ND	< 13	100			
Total						53	Final MoldSCORE 105			

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-18-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM14

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
Total						N/A				Final MoldSCORE 100

*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. Larry Sandhu
Hygiene Technologies International, Inc.
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21301001-1
EML ID: 1018140

Approved by:

Lab Manager
Malcolm Moody

Dates of Analysis:
Spore trap analysis: 01-23-2013

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

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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-22-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM15 OUT		21301001-1 TM16		21301001-1 TM17	
Comments (see below)	None		None		None	
Lab ID-Version‡:	4557318-1		4557319-1		4557320-1	
Analysis Date:	01/23/2013		01/23/2013		01/23/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	1	53				
Basidiospores	12	640				
Chaetomium						
Cladosporium	10	530				
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Oidium	1	13				
Other brown	1	13				
Other colorless						
Penicillium/Aspergillus types†	11	590				
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	4	53				
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		1+		1+	
Hyphal fragments/m3	27		< 13		13	
Pollen/m3	13		< 13		13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		1,900		< 13		< 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. Larry Sandhu
Re: 21301001-1

Date of Sampling: 01-22-2013
Date of Receipt: 01-22-2013
Date of Report: 01-23-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM18		21301001-1 TM19		21301001-1 TM20	
Comments (see below)	None		None		None	
Lab ID-Version‡:	4557321-1		4557322-1		4557323-1	
Analysis Date:	01/23/2013		01/23/2013		01/23/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores						
Basidiospores	3	160				
Chaetomium						
Cladosporium	1	53			3	40
Curvularia						
Epicoccum	1	13				
Fusarium						
Myrothecium						
Nigrospora						
Oidium						
Other brown			1	13	1	13
Other colorless						
Penicillium/Aspergillus types†	1	53			1	13
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes					2	27
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		1+		1+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	27		27		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		280		13		93

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. Larry Sandhu
Re: 21301001-1

Date of Sampling: 01-22-2013
Date of Receipt: 01-22-2013
Date of Report: 01-23-2013

MoldRANGE™: Extended Outdoor Comparison
Outdoor Location: 21301001-1 TM15 OUT

Fungi Identified	Outdoor data	Typical Outdoor Data for: January in California (n‡=13946)†						Typical Outdoor Data for: The entire year in California (n‡=187082)†					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	25	47	67	37	13	13	27	67	110	55
Bipolaris/Drechslera group	-	7	13	13	25	27	7	7	13	13	27	40	12
Chaetomium	-	7	13	13	27	40	10	8	13	13	27	47	19
Cladosporium	530	110	160	480	1,200	2,100	96	110	210	640	1,700	2,800	97
Curvularia	-	7	13	13	13	27	3	7	13	13	27	53	6
Nigrospora	-	7	13	13	13	28	5	7	13	13	27	53	8
Other brown	13	13	13	13	27	53	31	13	13	13	40	53	34
Penicillium/Aspergillus types	590	53	110	210	600	1,000	85	53	100	210	590	1,000	85
Stachybotrys	-	9	13	13	40	93	3	7	13	13	33	67	4
Torula	-	8	13	13	40	53	5	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	53	27	53	160	530	1,000	69	25	53	110	360	690	71
Basidiospores	640	53	120	480	2,300	4,800	94	53	80	270	1,000	2,400	93
Oidium	13	13	13	13	40	57	9	13	13	13	40	75	19
Rusts	-	8	13	13	40	67	14	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	53	13	13	27	67	110	57	13	13	40	110	210	68
§ TOTAL SPORES/m3	1,900												

†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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-22-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21301001-1 TM15 OUT:

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores				53	13 - 190 - 5,400	77
Basidiospores				640	13 - 430 - 22,000	92
Cladosporium				530	27 - 480 - 10,000	91
Oidium				13	7 - 13 - 230	12
Other brown				13	7 - 13 - 120	24
Penicillium/Aspergillus types				590	13 - 160 - 2,700	69
Smuts, Periconia, Myxomycetes				53	7 - 47 - 970	64
Total				1,900		

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: 21301001-1 TM16

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 4 Result: 7.1333 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
Species Detected		Spores/m3		
None Detected		<100	1K	10K
				>100K
				< 13

Location: 21301001-1 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: 7.1333 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
Species Detected		Spores/m3		
None Detected		<100	1K	10K
				>100K
				< 13

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-22-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 TM18

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 14%	dF: 4 Result: 7.1333 Critical value: 9.4877 Inside Similar: Yes	Result: 0.5455	dF: 8 Result: 0.7083 Critical value: 0.6190 Outside Similar: Yes	Score: 108 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Basidiospores					160
Cladosporium					53
Epicoccum					13
Penicillium/Aspergillus types					53
Total					280

Location: 21301001-1 TM19

% 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: 7.1333 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.0179 Critical value: 0.6786 Outside Similar: No	Score: 105 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Other brown					13
Total					13

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-22-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 TM20

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 4%	dF: 4 Result: 7.1333 Critical value: 9.4877 Inside Similar: Yes	Result: 0.7273	dF: 7 Result: 0.1250 Critical value: 0.6786 Outside Similar: No	Score: 110 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Cladosporium					40
Other brown					13
Penicillium/Aspergillus types					13
Smuts, Periconia, Myxomycetes					27
Total					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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-22-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM17

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A				Final MoldSCORE 100

Location: 21301001-1 TM18

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				100
Curvularia					ND	< 13				100
Epicoccum					1	13				105
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					1	53				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					3	160				107
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						280				Final MoldSCORE 107

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-22-2013
 Date of Receipt: 01-22-2013
 Date of Report: 01-23-2013

MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM19

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

Location: 21301001-1 TM20

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium	█				3	40				101
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Other brown	█				1	13				105
Penicillium/Aspergillus types†	█				1	13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes	█				2	27				105
Total						93				Final MoldSCORE 110

Client: Hygiene Technologies International, Inc.
C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
Re: 21301001-1

Date of Sampling: 01-22-2013
Date of Receipt: 01-22-2013
Date of Report: 01-23-2013

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. Larry Sandhu
Hygiene Technologies International, Inc.
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21301001-1
EML ID: 1020477

Approved by:

Lab Manager
Malcolm Moody

Dates of Analysis:
Spore trap analysis: 01-30-2013

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

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. Larry Sandhu
Re: 21301001-1

Date of Sampling: 01-28-2013
Date of Receipt: 01-29-2013
Date of Report: 01-30-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM21 OUT		21301001-1 TM22		21301001-1 TM23	
Comments (see below)	None		None		None	
Lab ID-Version‡:	4568022-1		4568023-1		4568024-1	
Analysis Date:	01/30/2013		01/30/2013		01/30/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores						
Basidiospores	2	110	1	53		
Bipolaris/Drechslera group	1	13				
Botrytis						
Chaetomium						
Cladosporium	5	270			10	530
Curvularia						
Epicoccum	1	13				
Fusarium						
Myrothecium						
Nigrospora	1	13				
Oidium					1	13
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	5	67	1	13		
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		1+		1+	
Hyphal fragments/m3	13		13		13	
Pollen/m3	80		< 13		< 13	
Skin cells (1-4+)	1+		< 1+		< 1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		480		67		550

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. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-28-2013
 Date of Receipt: 01-29-2013
 Date of Report: 01-30-2013

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21301001-1 TM24		21301001-1 TM25		21301001-1 TM26	
Comments (see below)	None		None		None	
Lab ID-Version‡:	4568025-1		4568026-1		4568027-1	
Analysis Date:	01/30/2013		01/30/2013		01/30/2013	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores						
Basidiospores			1	53	1	53
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium			1	53	4	210
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Oidium						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes			1	13	1	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Hyphal fragments/m3	27		< 13		< 13	
Pollen/m3	< 13		13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		< 13		120		280

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.

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§ 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. Larry Sandhu
Re: 21301001-1

Date of Sampling: 01-28-2013
Date of Receipt: 01-29-2013
Date of Report: 01-30-2013

MoldRANGE™: Extended Outdoor Comparison
Outdoor Location: 21301001-1 TM21 OUT

Fungi Identified	Outdoor data	Typical Outdoor Data for: January in California (n‡=13946)†						Typical Outdoor Data for: The entire year in California (n‡=187082)†					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	25	47	67	37	13	13	27	67	110	55
Bipolaris/Drechslera group	13	7	13	13	25	27	7	7	13	13	27	40	12
Chaetomium	-	7	13	13	27	40	10	8	13	13	27	47	19
Cladosporium	270	110	160	480	1,200	2,100	96	110	210	640	1,700	2,800	97
Curvularia	-	7	13	13	13	27	3	7	13	13	27	53	6
Epicoccum	13	7	13	13	27	53	14	8	13	13	33	53	19
Nigrospora	13	7	13	13	13	28	5	7	13	13	27	53	8
Penicillium/Aspergillus types	-	53	110	210	600	1,000	85	53	100	210	590	1,000	85
Stachybotrys	-	9	13	13	40	93	3	7	13	13	33	67	4
Torula	-	8	13	13	40	53	5	8	13	13	40	67	12
Seldom found growing indoors**													
Ascospores	-	27	53	160	530	1,000	69	25	53	110	360	690	71
Basidiospores	110	53	120	480	2,300	4,800	94	53	80	270	1,000	2,400	93
Rusts	-	8	13	13	40	67	14	13	13	13	53	80	27
Smuts, Periconia, Myxomycetes	67	13	13	27	67	110	57	13	13	40	110	210	68
§ TOTAL SPORES/m3	480												

†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.

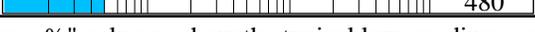
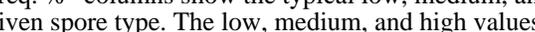
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Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Larry Sandhu
 Re: 21301001-1

Date of Sampling: 01-28-2013
 Date of Receipt: 01-29-2013
 Date of Report: 01-30-2013

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21301001-1 TM21 OUT:

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores	 < 13				13 - 190 - 5,400	77
Basidiospores	 110				13 - 430 - 22,000	92
Bipolaris/Drechslera group	 13				7 - 13 - 240	16
Cladosporium	 270				27 - 480 - 10,000	91
Epicoccum	 13				7 - 20 - 330	25
Nigrospora	 13				7 - 13 - 230	16
Penicillium/Aspergillus types	 < 13				13 - 160 - 2,700	69
Smuts, Periconia, Myxomycetes	 67				7 - 47 - 970	64
Total	 480					

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: 21301001-1 TM22

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 13%	dF: 4 Result: 3.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.5000	dF: 6 Result: 0.5714 Critical value: 0.7714 Outside Similar: No	Score: 105 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Basidiospores	 53			
	Smuts, Periconia, Myxomycetes	 13			
	Total	 67			

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 TM23

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 111%	dF: 4 Result: 3.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.3214 Critical value: 0.6786 Outside Similar: No	Score: 129 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Cladosporium					530
Oidium					13
Total					550

Location: 21301001-1 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: 4 Result: 3.4500 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	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
None Detected					< 13

Location: 21301001-1 TM25

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 24%	dF: 4 Result: 3.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.6667	dF: 6 Result: 0.9857 Critical value: 0.7714 Outside Similar: Yes	Score: 105 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Basidiospores					53
Cladosporium					53
Smuts, Periconia, Myxomycetes					13
Total					120

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21301001-1 TM26

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 56%	dF: 4 Result: 3.4500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.6667	dF: 6 Result: 1.0000 Critical value: 0.7714 Outside Similar: Yes	Score: 111 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Basidiospores					53
Cladosporium					210
Smuts, Periconia, Myxomycetes					13
Total					280

* 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.

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MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM23

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium	█	█	█		10	530	█	█		130
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Oidium	█				1	13				105
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						547				Final MoldSCORE 130

Location: 21301001-1 TM24

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
Total						N/A				Final MoldSCORE 100

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MoldSCORE™: Spore Trap Report

Location: 21301001-1 TM25

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
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
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					1	53				105
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					1	13				102
Total						120				Final MoldSCORE 105

Location: 21301001-1 TM26

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
Generally able to grow indoors*										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					4	210				111
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
Seldom found growing indoors**										
Ascospores					ND	< 13				100
Basidiospores					1	53				104
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					1	13				101
Total						280				Final MoldSCORE 111

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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.

