Indiana University Environmental Health & Safety
Beau Middaugh
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EMLab P & K

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Approved by:

Murali R Putty

Technical Manager
Murali Putty

Dates of Analysis:
MoldReport Spore trap: 10-26-2018 and 10-26-2018

Service SOPs: MoldReport Spore trap (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #102856

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.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

Client: Indiana University Environmental Health & Safety
Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
Date of Receipt: 10-26-2018
Date of Report: 10-26-2018

MoldREPORT
EMLab P & K
6000 Shoreline Ct, Ste 205, So. San Francisco, CA 94080
(866) 888-6653 Fax (623) 780-7695

Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	27018976: Harper 202		27018929: Harper 205		27018922: Harper 326	
Comments (see below)	A		None		None	
Lab ID-Version‡:	9582096-1		9582097-1		9582098-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	1	53	-	-
Chaetomium	2	27	-	-	-	-
Cladosporium	4	440	5	270	3	160
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	26	1,500	7	370	11	590
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	37	590	8	150	8	150
§ Total:		2,600		840		890
Additional Information:						
Hyphal fragments	830		13		40	
Skin cells	8,000 - 13,000		4,000 - 8,000		4,000 - 8,000	
Pollen	< 13		< 13		< 13	
Background debris (1-4)†	4		2		3	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments: A) 14 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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† Background debris is an indication of the amounts of non-biological particulate matter present on the slide (dust in the air) and is graded from 1 to 4 with 4 indicating the largest amounts.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	27018934: Harper 225		27018949: Harper 423		27018923: Harper 425	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582099-1		9582100-1		9582101-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	1	110	1	53
Chaetomium	3	40	-	-	-	-
Cladosporium	1	53	6	670	-	-
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	14	750	12	1,300	5	270
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	3	40	16	310	-	-
§ Total:		880		2,400		320
Additional Information:						
Hyphal fragments	13		290		13	
Skin cells	80 - 4,000		> 13,000		80 - 4,000	
Pollen	< 13		< 13		13	
Background debris (1-4)†	3		4		2	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:
Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	27018962: Harper 426		27018967: Harper 420		27018963: Harper 525	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582102-1		9582103-1		9582104-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	-	-	1	13
Chaetomium	-	-	-	-	-	-
Cladosporium	-	-	1	80	2	27
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	7	370	5	400	2	27
Stachybotrys	1	13	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	1	53	1	20	1	53
§ Total:		440		500		120
Additional Information:						
Hyphal fragments	-		-		210	
Skin cells	80 - 4,000		120 - 6,000		80 - 4,000	
Pollen	13		< 20		< 13	
Background debris (1-4)†	2		2		2	
Limit of detection	13		20		13	
Sample volume (liters)	75		50		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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Laboratory Results

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Location:	27018964: Harper 516		27019542: Harper 503		27019564: Harper 622	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582105-1		9582106-1		9582107-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	-	-	1	53
Chaetomium	-	-	-	-	-	-
Cladosporium	2	230	3	330	2	110
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	4	440	7	770	4	210
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	13	270	7	93	8	110
§ Total:		930		1,200		480
Additional Information:						
Hyphal fragments	310		160		110	
Skin cells	8,000 - 13,000		> 13,000		80 - 4,000	
Pollen	< 13		13		< 13	
Background debris (1-4)†	4		4		2	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	27019539: Harper 824		27019548: Harper 817		27019558: Harper 806	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582108-1		9582109-1		9582110-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	4	210	-	-
Chaetomium	-	-	-	-	-	-
Cladosporium	3	160	1	53	1	53
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	4	210	8	430	3	160
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	-	-	13	330	4	53
§ Total:		370		1,000		270
Additional Information:						
Hyphal fragments	13		40		27	
Skin cells	4,000 - 8,000		4,000 - 8,000		4,000 - 8,000	
Pollen	< 13		< 13		< 13	
Background debris (1-4)†	3		3		3	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	27019540: Harper 911		27019552: Harper 924		27018990: Foster Harper 209	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582111-1		9582112-1		9582113-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	1	53	-	-
Chaetomium	-	-	-	-	-	-
Cladosporium	1	53	-	-	5	270
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	2	110	2	110	7	370
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	3	40	8	190	8	110
§ Total:		200		350		750
Additional Information:						
Hyphal fragments	-		-		150	
Skin cells	4,000 - 8,000		80 - 4,000		4,000 - 8,000	
Pollen	13		< 13		< 13	
Background debris (1-4)†	3		2		3	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

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MoldREPORT: Spore Trap Analysis

Location:	27018979: Foster Harper 210		27018971: Foster Harper 307		27018975: Foster Harper 310	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582114-1		9582115-1		9582116-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	-	-	-	-
Chaetomium	-	-	-	-	2	27
Cladosporium	1	53	3	160	3	160
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	10	530	12	640	8	430
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	3	40	10	250	11	190
§ Total:		630		1,100		800
Additional Information:						
Hyphal fragments	-		13		40	
Skin cells	80 - 4,000		8,000 - 13,000		8,000 - 13,000	
Pollen	< 13		< 13		13	
Background debris (1-4)†	2		3		3	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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Location:	26764525: Foster Harper 402		27018987: Foster Harper 404		27018980: Foster Harper 406	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582117-1		9582118-1		9582119-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	4	210	8	430	7	370
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	3	40	-	-	4	53
§ Total:		250		430		430
Additional Information:						
Hyphal fragments	-		-		27	
Skin cells	4,000 - 8,000		4,000 - 8,000		8,000 - 13,000	
Pollen	< 13		< 13		< 13	
Background debris (1-4)†	2		2		3	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

‡ 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".
† Background debris is an indication of the amounts of non-biological particulate matter present on the slide (dust in the air) and is graded from 1 to 4 with 4 indicating the largest amounts.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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

Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
Date of Receipt: 10-26-2018
Date of Report: 10-26-2018

Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	27018986: Foster Harper outdoor		27018973: Foster Harper 517		27018965: Foster Harper 504	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582120-1		9582121-1		9582122-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	24	640	-	-	-	-
Chaetomium	-	-	-	-	-	-
Cladosporium	22	590	-	-	1	110
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	33	880	5	270	7	770
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	1	13	-	-
Others	21	300	18	280	4	150
§ Total:		2,400		560		1,000
Additional Information:						
Hyphal fragments	210		67		53	
Skin cells	7 - 33		4,000 - 8,000		> 13,000	
Pollen	13		< 13		40	
Background debris (1-4)†	3		3		4	
Limit of detection	7		13		13	
Sample volume (liters)	150		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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† Background debris is an indication of the amounts of non-biological particulate matter present on the slide (dust in the air) and is graded from 1 to 4 with 4 indicating the largest amounts.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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

Client: Indiana University Environmental Health & Safety
Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
Date of Receipt: 10-26-2018
Date of Report: 10-26-2018

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Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	27018969: Foster Harper 621		26764530: Foster Harper 624		26764503: Foster Harper 827	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582123-1		9582124-1		9582125-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-
Cladosporium	-	-	1	53	1	53
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	1	53	2	110	6	320
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	3	40	9	160	9	160
§ Total:		93		320		530
Additional Information:						
Hyphal fragments	-		13		40	
Skin cells	80 - 4,000		80 - 4,000		4,000 - 8,000	
Pollen	< 13		< 13		< 13	
Background debris (1-4)†	2		2		3	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

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Contact: Beau Middaugh
Project: Harper
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Laboratory Results

MoldREPORT: Spore Trap Analysis

Location:	26764505: Foster Harper 811		26764508: Foster Harper 913		26764490: Foster Harper 921	
Comments (see below)	None		None		None	
Lab ID-Version‡:	9582126-1		9582127-1		9582128-1	
Analysis Date:	10/26/2018		10/26/2018		10/26/2018	
Spore types detected:	raw ct.	per m3	raw ct.	per m3	raw ct.	per m3
Aureobasidium	-	-	-	-	-	-
Basidiospores	-	-	-	-	2	110
Chaetomium	-	-	-	-	-	-
Cladosporium	-	-	4	210	-	-
Fusarium	-	-	-	-	-	-
Penicillium/Aspergillus types	5	270	3	160	2	110
Stachybotrys	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-
Others	3	40	5	110	1	13
§ Total:		310		480		230
Additional Information:						
Hyphal fragments	27		27		-	
Skin cells	8,000 - 13,000		4,000 - 8,000		4,000 - 8,000	
Pollen	< 13		< 13		< 13	
Background debris (1-4)†	3		3		2	
Limit of detection	13		13		13	
Sample volume (liters)	75		75		75	

Comments:

Basidiospores (basidiomycetes): Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors. However, basidiospores may be an indicator of wood decay.

Cladosporium: One of the most commonly found molds outdoors and frequently found growing indoors. Spores from Cladosporium are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Levels vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Penicillium/Aspergillus types: Penicllium and Aspergillus are among the most common molds found growing both indoors and outdoors (even in relatively clean, mold-growth-free, indoor environments). Levels vary based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

Stachybotrys and other marker types: Certain types of mold, such as Aureobasidium, Chaetomium, Fusarium, Trichoderma, and Ulocladium, are generally found in very low numbers outdoors. Consequently their presence indoors, even in relatively low numbers, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem.

Others: Molds in the "Others" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth.

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† Background debris is an indication of the amounts of non-biological particulate matter present on the slide (dust in the air) and is graded from 1 to 4 with 4 indicating the largest amounts.

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

**Indiana University Environmental Health &
Safety
Beau Middaugh
2427 E. 2nd street
Bloomington, IN 47401 USA
(812) 855-6316**

MoldREPORT™

INSPECT. ANALYZE. INTERPRET.

EMLab P & K

www.MoldREPORT.com

info@MoldREPORT.com

Approved by:

Murali R Putty

Technical Manager
Murali Putty

Dates of Analysis:
MoldReport Spore trap: 10-26-2018 and 10-26-2018

Service SOPs:
MoldReport Spore trap (EM-MY-S-1038)†

†AIHA-LAP, LLC accredited service, Lab ID #102856

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Table of Contents

Thank you for choosing MoldREPORT™ from EMLab P&K. Our mission is to provide industry leadership for the assessment of mold in the home indoor environment.

Your MoldREPORT™ is designed and intended for use by professional inspectors in office and residential home inspections to help in the assessment of mold growth in the living areas sampled by professional inspectors. Our laboratory analysis is based on the samples submitted to EMLab P&K. Please read the entire report to fully understand the complete MoldREPORT™ process. The following is a summary of the report sections:

1. Detailed Results of Sample Analysis - Laboratory results from the samples collected at the site.

2. Understanding Your Sample Analysis Results - Detailed summary of how to understand the analytical results from the air samples and/or surface samples including interpretive guidelines.

3. Important Information, Terms and Conditions - General information to help you understand and interpret your MoldREPORT™, including important terms, conditions and applicable legal provision relating to this report.

4. Scope and Limitations - Important information regarding the scope of the MoldREPORT™ system, and limitations
of mold inspection, air sampling, and surface sampling.

5. Glossary - Definitions and descriptions of frequently used terms and commonly found mold.

6. References and Resources - Literature, websites, and other materials that can provide more in-depth information about mold and indoor air quality.

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Contact: Beau Middaugh
Project: Harper
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Summary of Sample Analysis Results

Do not take any action based on the results of this report until you have read the entire report.

Air Sample Summary:

The MoldSCORE™ was in the MODERATE range for the following area(s): 27018976, 27018934, 27018949, 27019542, 27018973, 27018965. A moderate MoldSCORE™ means that the results are inconclusive, and suggests that a more detailed inspection by a trained professional may make sense if there are any other reasons to believe that mold growth could be a problem in this room.

The MoldSCORE™ was in the LOW range for the following area(s): 27018929, 27018922, 27018923, 27018962, 27018967, 27018963, 27018964, 27019564, 27019539, 27019548, 27019558, 27019540, 27019552, 27018990, 27018979, 27018971, 27018975, 26764525, 27018987, 27018980, 27018969, 26764530, 26764503, 26764505, 26764508, 26764490. A low MoldSCORE™ indicates the air sample did not detect, relative to the outside air, the presence of indoor mold growth in this room at the time of sampling.

Please see the sections titled "Detailed Results of the Air Sample Analysis" and "Understanding Your Air Sample Analysis Results" for important additional information.

Location	MoldSCORE™		Exposure Level		
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3	Outside spores/m3
27018976: Harper 202 * see p. 6 for details		193		2,600	2,400
27018929: Harper 205 * see p. 7 for details		120		840	2,400
27018922: Harper 326 * see p. 8 for details		141		900	2,400
27018934: Harper 225 * see p. 9 for details		166		880	2,400
27018949: Harper 423 * see p. 10 for details		165		2,400	2,400
27018923: Harper 425 * see p. 11 for details		124		320	2,400
27018962: Harper 426 * see p. 12 for details		133		440	2,400
27018967: Harper 420 * see p. 13 for details		134		500	2,400
27018963: Harper 525 * see p. 14 for details		100		120	2,400
27018964: Harper 516 * see p. 15 for details		139		940	2,400

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Project: Harper
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Summary of Sample Analysis Results

Sample	Mold Score	Location spores/m3	Outside spores/m3
27019542: Harper 503 * see p. 16 for details	152	1,200	2,400
27019564: Harper 622 * see p. 17 for details	122	480	2,400
27019539: Harper 824 * see p. 18 for details	112	370	2,400
27019548: Harper 817 * see p. 19 for details	125	1,000	2,400
27019558: Harper 806 * see p. 20 for details	112	270	2,400
27019540: Harper 911 * see p. 21 for details	106	200	2,400
27019552: Harper 924 * see p. 22 for details	113	350	2,400
27018990: Foster Harper 209 * see p. 23 for details	125	750	2,400
27018979: Foster Harper 210 * see p. 24 for details	147	620	2,400
27018971: Foster Harper 307 * see p. 25 for details	140	1,100	2,400
27018975: Foster Harper 310 * see p. 26 for details	143	800	2,400
26764525: Foster Harper 402 * see p. 27 for details	119	250	2,400
27018987: Foster Harper 404 * see p. 28 for details	143	430	2,400
27018980: Foster Harper 406 * see p. 29 for details	134	420	2,400
27018973: Foster Harper 517 * see p. 30 for details	150	560	2,400
27018965: Foster Harper 504 * see p. 31 for details	161	1,000	2,400

Mold Score scale: Lower <110 — 200 — 300 Higher
Location scale: Lower <200 — 1K — 10K — >70K Higher

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Summary of Sample Analysis Results

Sample	Mold Score	Location spores/m3	Outside spores/m3
27018969: Foster Harper 621 * see p. 32 for details	104	93	2,400
26764530: Foster Harper 624 * see p. 33 for details	113	320	2,400
26764503: Foster Harper 827 * see p. 34 for details	120	530	2,400
26764505: Foster Harper 811 * see p. 35 for details	125	310	2,400
26764508: Foster Harper 913 * see p. 36 for details	110	480	2,400
26764490: Foster Harper 921 * see p. 37 for details	105	230	2,400

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582096-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)					Outside ‡9582120-1	
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27018976: Harper 202				193				2,600	69	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)				Indicator Exposure Level (Shown on a log scale)						
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**				193				1,500	26	880	33
B) Cladosporium species spores				100				440	4	590	22
C) Basidiospores				100				< 13	0	640	24
D) "Marker" spore types***				143				27	2	< 7	0
1) Chaetomium											
E) "Other" spore types***,****				159				336	25	67	10

  1) Smuts, Periconia, Myxomycetes   2) Other brown   3) Pithomyces

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location			X
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					Location		Outside	
Lower <200	1K	Higher 10K >70K			spores/m3	raw ct	spores/m3	raw ct
					260	12	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	14 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

**** The spores of smuts, *Periconia,* and myxomycetes look similar and cannot generally be distinguished by spore trap analysis. Smuts are plant pathogens and are not likely to be on indoor surfaces. *Periconia* is rarely found growing indoors. However, myxomycetes, the spores of which look similar, can occasionally grow indoors. Because there is a small probability of indoor sources, these spore types are indicated in the "other" spore types category. False positives may result if the spores are smuts, not myxomycetes.

‡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.
The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.
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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582097-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1 27018986	
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	spores/m3	raw ct
27018929: Harper 205			120			840	21	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**			110			370	7	880	33
B) Cladosporium species spores			104			270	5	590	22
C) Basidiospores			100			53	1	640	24
D) "Marker" spore types***			100			< 13	0	< 7	0
E) "Other" spore types***,****			120			79	6	67	10

1) Smuts, Periconia, Myxomycetes   2) Bipolaris/Drechslera group   3) Curvularia   4) Other brown   5) Torula

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					
Lower <200 1K 10K	>70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
		66	2	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

**** The spores of smuts, *Periconia,* and myxomycetes look similar and cannot generally be distinguished by spore trap analysis. Smuts are plant pathogens and are not likely to be on indoor surfaces. *Periconia* is rarely found growing indoors. However, myxomycetes, the spores of which look similar, can occasionally grow indoors. Because there is a small probability of indoor sources, these spore types are indicated in the "other" spore types category. False positives may result if the spores are smuts, not myxomycetes.

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Total spores/m3 has been rounded to two significant figures to reflect analytical precision.
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Client: Indiana University Environmental Health & Safety
Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
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Date of Report: 10-26-2018

MoldREPORT
EMLab P & K
6000 Shoreline Ct, Ste 205, So. San Francisco, CA 94080
(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582098-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1
27018922: Harper 326	Lower <110 200 Higher 300	Mold Score		Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
		141			900	22	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)				
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**		141		590	11	880	33
B) Cladosporium species spores		100		160	3	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		117		94	7	67	10

1) Smuts, Periconia, Myxomycetes 2) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	53	1	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582099-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1	
	Lower <110 200 Higher 300		Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27018934: Harper 225			166		880	21	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)				
	Lower <110 200 Higher 300		Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**			166		750	14	880	33
B) Cladosporium species spores			100		53	1	590	22
C) Basidiospores			100		< 13	0	640	24
D) "Marker" spore types***			162		40	3	< 7	0
1) Chaetomium								
E) "Other" spore types***,****			107		26	2	67	10

   1) Pithomyces   2) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	13	1	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582100-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1	
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27018949: Harper 423				165				2,400	35	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**				165				1,300	12	880	33
B) Cladosporium species spores				105				670	6	590	22
C) Basidiospores				100				110	1	640	24
D) "Marker" spore types***				100				< 13	0	< 7	0
E) "Other" spore types***,****				127				160	12	67	10

1) Smuts, Periconia, Myxomycetes   2) Curvularia   3) Other brown   4) Alternaria

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location			X
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
			150	4	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582101-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1	
	Lower <110 / 200 / Higher 300		Mold Score	Lower <200 / 1K / Higher 10K / >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27018923: Harper 425			124		320	6	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 / 200 / Higher 300		Mold Score	Lower <200 / 1K / Higher 10K / >70K	Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**			124		270	5	880	33
B) Cladosporium species spores			100		< 13	0	590	22
C) Basidiospores			100		53	1	640	24
D) "Marker" spore types***			100		< 13	0	< 7	0
E) "Other" spore types***,****			100		< 13	0	67	10

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			Location		Outside	
Lower <200 / 1K / Higher 10K / >70K			spores/m3	raw ct	spores/m3	raw ct
			< 13	0	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582102-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3 raw ct		spores/m3	raw ct
27018962: Harper 426		133		440	9	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)				
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**		133		370	7	880	33
B) Cladosporium species spores		100		< 13	0	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		121		13	1	< 7	0
1) Stachybotrys							
E) "Other" spore types***,****		100		< 13	0	67	10

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	53	1	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582103-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
27018967: Harper 420		134		500	7	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**		134		400	5	880	33
B) Cladosporium species spores		100		80	1	590	22
C) Basidiospores		100		< 20	0	640	24
D) "Marker" spore types***		100		< 20	0	< 7	0
E) "Other" spore types***,****		107		20	1	67	10
1) Alternaria							

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores*

Exposure Level (Highly unlikely to be from indoors)			Outside	
Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
	< 20	0	230	11

	Location	Outside
Sample volume (liters)	50	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582104-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)						Outside ‡9582120-1	
27018963: Harper 525	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
				100				120	6	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)							
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**				100				27	2	880	33
B) Cladosporium species spores				100				27	2	590	22
C) Basidiospores				100				13	1	640	24
D) "Marker" spore types***				100				< 13	0	< 7	0
E) "Other" spore types***,****				100				< 13	0	67	10

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)							
Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
			53	1	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

**** The spores of smuts, *Periconia,* and myxomycetes look similar and cannot generally be distinguished by spore trap analysis. Smuts are plant pathogens and are not likely to be on indoor surfaces. *Periconia* is rarely found growing indoors. However, myxomycetes, the spores of which look similar, can occasionally grow indoors. Because there is a small probability of indoor sources, these spore types are indicated in the "other" spore types category. False positives may result if the spores are smuts, not myxomycetes.

Client: Indiana University Environmental Health & Safety
Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
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Date of Report: 10-26-2018

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582105-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1	
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct

Location Lab ID-version:‡ 9582105-1	Lower <110 — 200 — Higher 300	Mold Score	Lower <200 — 1K — Higher 10K — >70K	Location spores/m3	Location raw ct	Outside spores/m3	Outside raw ct
27018964: Harper 516		139		940	19	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside) Lower <110 — 200 — Higher 300	Mold Score	Indicator Exposure Level (Shown on a log scale) Lower <200 — 1K — Higher 10K — >70K	Location spores/m3	Location raw ct	Outside spores/m3	Outside raw ct
A) Penicillium/Aspergillus types**		116		440	4	880	33
B) Cladosporium species spores		100		230	2	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		139		146	11	67	10

   1) Other brown   2) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location			X
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors) Lower <200 — 1K — Higher 10K — >70K	Location spores/m3	Location raw ct	Outside spores/m3	Outside raw ct
	123	2	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582106-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986

27019542: Harper 503	Lower <110 200 Higher 300	Mold Score		Lower <200 1K Higher 10K >70K	Location spores/m3 raw ct		Outside spores/m3 raw ct
		152			1,200 17		2,400 100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)			
	Lower <110 200 Higher 300	Mold Score		Lower <200 1K Higher 10K >70K	Location spores/m3 raw ct		Outside spores/m3 raw ct
A) Penicillium/Aspergillus types**		152			770 7		880 33
B) Cladosporium species spores		102			330 3		590 22
C) Basidiospores		100			< 13 0		640 24
D) "Marker" spore types***		100			< 13 0		< 7 0
E) "Other" spore types***,****		117			93 7		67 10

   1) Smuts, Periconia, Myxomycetes   2) Other brown   3) Alternaria   4) Pithomyces

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location			X
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			
Lower <200 1K Higher 10K >70K	Location spores/m3 raw ct		Outside spores/m3 raw ct
	< 13 0		230 11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

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‡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.
The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.
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Contact: Beau Middaugh
Project: Harper
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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582107-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1	
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location	27018986
27019564: Harper 622				122				480 spores/m3 / 15 raw ct	2,400 spores/m3 / 100 raw ct

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)			
	Lower <110 / 200 / Higher 300	Mold Score	Lower <200 / 1K / Higher 10K >70K	Location spores/m3	Location raw ct	Outside spores/m3	Outside raw ct
A) Penicillium/Aspergillus types**		105		210	4	880	33
B) Cladosporium species spores		100		110	2	590	22
C) Basidiospores		100		53	1	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		122		92	7	67	10

    1) Smuts, Periconia, Myxomycetes   2) Curvularia   3) Epicoccum   4) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					
Lower <200 / 1K / Higher 10K >70K	Location spores/m3	Location raw ct	Outside spores/m3	Outside raw ct
	13	1	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

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Total spores/m3 has been rounded to two significant figures to reflect analytical precision.
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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582108-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1	
	Lower <110 200 Higher 300		Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct	
27019539: Harper 824			112		370	7	2,400	100	

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110 200 Higher 300		Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct	
A) Penicillium/Aspergillus types**			112		210	4	880	33	
B) Cladosporium species spores			104		160	3	590	22	
C) Basidiospores			100		< 13	0	640	24	
D) "Marker" spore types***			100		< 13	0	< 7	0	
E) "Other" spore types***,****			100		< 13	0	67	10	

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					
Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct	
	< 13	0	230	11	

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582109-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1	
	Lower <110 / 200 / Higher 300	Mold Score	Lower <200 / 1K / 10K / Higher >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27019548: Harper 817		125		1,000	26	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)				
	Lower <110 / 200 / Higher 300	Mold Score	Lower <200 / 1K / 10K / Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**		108		430	8	880	33
B) Cladosporium species spores		100		53	1	590	22
C) Basidiospores		100		210	4	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		125		107	8	67	10

1) Smuts, Periconia, Myxomycetes   2) Alternaria   3) Pithomyces   4) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 / 1K / 10K / Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	223	5	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582110-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1 27018986	
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	spores/m3	raw ct
27019558: Harper 806			112			270	8	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**			110			160	3	880	33
B) Cladosporium species spores			100			53	1	590	22
C) Basidiospores			100			< 13	0	640	24
D) "Marker" spore types***			100			< 13	0	< 7	0
E) "Other" spore types***,****			112			53	4	67	10

   1) Smuts, Periconia, Myxomycetes   2) Epicoccum

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					
Lower <200 1K 10K	>70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
		< 13	0	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

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‡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.
The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.
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Client: Indiana University Environmental Health & Safety
Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
Date of Receipt: 10-26-2018
Date of Report: 10-26-2018

MoldREPORT
EMLab P & K
6000 Shoreline Ct, Ste 205, So. San Francisco, CA 94080
(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582111-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1	
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27019540: Harper 911			106			200	6	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**			106			110	2	880	33
B) Cladosporium species spores			100			53	1	590	22
C) Basidiospores			100			< 13	0	640	24
D) "Marker" spore types***			100			< 13	0	< 7	0
E) "Other" spore types***,****			102			13	1	67	10

   1) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				Location		Outside	
Lower <200 1K 10K	>70K			spores/m3	raw ct	spores/m3	raw ct
				27	2	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582112-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1
	Lower <110 200 Higher 300	Mold Score		Lower <200 1K 10K Higher >70K	Location spores/m3 raw ct		27018986 spores/m3 raw ct
27019552: Harper 924		113			350	11	2,400 100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)			
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3 raw ct		Outside spores/m3 raw ct
A) Penicillium/Aspergillus types**		100		110	2	880 33
B) Cladosporium species spores		100		< 13	0	590 22
C) Basidiospores		100		53	1	640 24
D) "Marker" spore types***		100		< 13	0	< 7 0
E) "Other" spore types***,****		113		66	5	67 10

   1) Smuts, Periconia, Myxomycetes   2) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			
Lower <200 1K 10K Higher >70K	Location spores/m3 raw ct		Outside spores/m3 raw ct
	123	3	230 11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582113-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 / 200 / Higher 300		Mold Score	Lower <200 / 1K / 10K / Higher >70K	Location spores/m3	raw ct	spores/m3	raw ct
27018990: Foster Harper 209			125		750	20	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)				
	Lower <110 / 200 / Higher 300		Mold Score	Lower <200 / 1K / 10K / Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**			115		370	7	880	33
B) Cladosporium species spores			105		270	5	590	22
C) Basidiospores			100		< 13	0	640	24
D) "Marker" spore types***			100		< 13	0	< 7	0
E) "Other" spore types***,****			125		93	7	67	10

1) Other brown   2) Smuts, Periconia, Myxomycetes   3) Epicoccum   4) Pithomyces

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 / 1K / 10K / Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	13	1	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582114-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27018979: Foster Harper 210		147		620	14	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**		147		530	10	880	33
B) Cladosporium species spores		100		53	1	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		102		13	1	67	10

    1) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	27	2	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

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Total spores/m3 has been rounded to two significant figures to reflect analytical precision.
The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.
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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582115-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1	
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	27018986 spores/m3	raw ct
27018971: Foster Harper 307				140				1,100	25	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**				140				640	12	880	33
B) Cladosporium species spores				100				160	3	590	22
C) Basidiospores				100				< 13	0	640	24
D) "Marker" spore types***				100				< 13	0	< 7	0
E) "Other" spore types***,****				119				79	6	67	10

1) Smuts, Periconia, Myxomycetes   2) Curvularia   3) Epicoccum

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					
Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
			173	4	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582116-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)					Outside ‡9582120-1 27018986	
	Lower <110	200	Higher 300	Mold Score	Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
27018975: Foster Harper 310			143				800	24	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					Outside	
	Lower <110 / 200 / Higher 300		Mold Score	Lower <200 / 1K / Higher 10K >70K			Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**			122				430	8	880	33
B) Cladosporium species spores			100				160	3	590	22
C) Basidiospores			100				< 13	0	640	24
D) "Marker" spore types***			143				27	2	< 7	0
1) Chaetomium										
E) "Other" spore types***,****			123				133	10	67	10

  1) Smuts, Periconia, Myxomycetes   2) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					Outside	
Lower <200	1K	Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
			53	1	230	11

	Location	Outside
Sample volume (liters)	75	150

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582117-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1 27018986	
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	spores/m3	raw ct
26764525: Foster Harper 402			119			250	7	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K	>70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**			119			210	4	880	33
B) Cladosporium species spores			100			< 13	0	590	22
C) Basidiospores			100			< 13	0	640	24
D) "Marker" spore types***			100			< 13	0	< 7	0
E) "Other" spore types***,****			109			40	3	67	10

1) Smuts, Periconia, Myxomycetes   2) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					
Lower <200 1K 10K	>70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
		< 13	0	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

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Client: Indiana University Environmental Health & Safety
Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
Date of Receipt: 10-26-2018
Date of Report: 10-26-2018

MoldREPORT
EMLab P & K
6000 Shoreline Ct, Ste 205, So. San Francisco, CA 94080
(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582118-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K		Location spores/m3	raw ct	27018986 spores/m3	raw ct
27018987: Foster Harper 404	▓▓▓▓░░░░░░░░░	143	▓▓▓░░░░░░░░░		430	8	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**	▓▓▓▓░░░░░░░░	143	▓▓▓░░░░░░░░░	430	8	880	33
B) Cladosporium species spores	▓░░░░░░░░░░	100	░░░░░░░░░░░	< 13	0	590	22
C) Basidiospores	▓░░░░░░░░░░	100	░░░░░░░░░░░	< 13	0	640	24
D) "Marker" spore types***	▓░░░░░░░░░░	100	░░░░░░░░░░░	< 13	0	< 7	0
E) "Other" spore types***,****	▓░░░░░░░░░░	100	░░░░░░░░░░░	< 13	0	67	10

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			
Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
░░░░░░░░░░░	< 13	0	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

**** The spores of smuts, *Periconia,* and myxomycetes look similar and cannot generally be distinguished by spore trap analysis. Smuts are plant pathogens and are not likely to be on indoor surfaces. *Periconia* is rarely found growing indoors. However, myxomycetes, the spores of which look similar, can occasionally grow indoors. Because there is a small probability of indoor sources, these spore types are indicated in the "other" spore types category. False positives may result if the spores are smuts, not myxomycetes.

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Total spores/m3 has been rounded to two significant figures to reflect analytical precision.
The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.
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Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
Date of Receipt: 10-26-2018
Date of Report: 10-26-2018

MoldREPORT
EMLab P & K
6000 Shoreline Ct, Ste 205, So. San Francisco, CA 94080
(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582119-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
27018980: Foster Harper 406		134		420	11	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**		134		370	7	880	33
B) Cladosporium species spores		100		< 13	0	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		110		39	3	67	10

  1) Curvularia 2) Other brown 3) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			Outside	
Lower <200 1K Higher 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
	13	1	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

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Contact: Beau Middaugh
Project: Harper
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MoldREPORT
EMLab P & K
6000 Shoreline Ct, Ste 205, So. San Francisco, CA 94080
(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582121-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	spores/m3	raw ct
27018973: Foster Harper 517		150		560	24	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)				
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**		110		270	5	880	33
B) Cladosporium species spores		100		< 13	0	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		150		210	16	67	10

1) Smuts, Periconia, Myxomycetes   2) Other brown   3) Ulocladium

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	80	3	230	11

	Location	Outside
Sample volume (liters)	75	150

Comments

Location	None
Outside	None

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582122-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)					Outside ‡9582120-1	
	Lower		Higher	Lower		Higher	Location		27018986	
	<110	200	300 / Mold Score	<200	1K	10K >70K	spores/m3	raw ct	spores/m3	raw ct
27018965: Foster Harper 504			161				1,000	12	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)						
	Lower		Higher	Lower		Higher	Location		Outside	
	<110	200	300 / Mold Score	<200	1K	10K >70K	spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**			161				770	7	880	33
B) Cladosporium species spores			100				110	1	590	22
C) Basidiospores			100				< 13	0	640	24
D) "Marker" spore types***			100				< 13	0	< 7	0
E) "Other" spore types***,****			110				40	3	67	10

1) Smuts, Periconia, Myxomycetes   2) Nigrospora

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location			X
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)						
Lower		Higher	Location		Outside	
<200	1K	10K >70K	spores/m3	raw ct	spores/m3	raw ct
			110	1	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582123-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1 27018986	
	Lower <110 200	Higher 300	Mold Score	Lower <200 1K 10K >70K	Location spores/m3	raw ct		spores/m3	raw ct
27018969: Foster Harper 621			104		93	4		2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 200 Higher 300	Mold Score		Lower <200 1K 10K >70K	Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**		103			53	1	880	33
B) Cladosporium species spores		100			< 13	0	590	22
C) Basidiospores		100			< 13	0	640	24
D) "Marker" spore types***		100			< 13	0	< 7	0
E) "Other" spore types***,****		104			13	1	67	10

   1) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			Location		Outside	
Lower <200 1K 10K >70K			spores/m3	raw ct	spores/m3	raw ct
			27	2	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582124-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 200 300 Higher	Mold Score	Lower <200 1K 10K >70K Higher	Location spores/m3	raw ct	spores/m3	raw ct
26764530: Foster Harper 624		113		320	12	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)				
	Lower <110 200 300 Higher	Mold Score	Lower <200 1K 10K >70K Higher	Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**		100		110	2	880	33
B) Cladosporium species spores		100		53	1	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		113		67	5	67	10

1) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			
Lower <200 1K 10K >70K Higher	Location spores/m3	raw ct	Outside spores/m3	raw ct
	93	4	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

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**** The spores of smuts, *Periconia,* and myxomycetes look similar and cannot generally be distinguished by spore trap analysis. Smuts are plant pathogens and are not likely to be on indoor surfaces. *Periconia* is rarely found growing indoors. However, myxomycetes, the spores of which look similar, can occasionally grow indoors. Because there is a small probability of indoor sources, these spore types are indicated in the "other" spore types category. False positives may result if the spores are smuts, not myxomycetes.

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Contact: Beau Middaugh
Project: Harper
Date of Submittal: 10-25-2018
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MoldREPORT
EMLab P & K
6000 Shoreline Ct, Ste 205, So. San Francisco, CA 94080
(866) 888-6653 Fax (623) 780-7695

Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582125-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)				Outside ‡9582120-1 27018986	
26764503: Foster Harper 827	Lower <110 200 Higher 300		Mold Score 120	Lower <200 1K 10K Higher >70K		Location spores/m3 530	raw ct 16	spores/m3 2,400	raw ct 100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					
	Lower <110 200 Higher 300		Mold Score	Lower <200 1K 10K Higher >70K		Location spores/m3	raw ct	Outside spores/m3	raw ct
A) Penicillium/Aspergillus types**			120			320	6	880	33
B) Cladosporium species spores			100			53	1	590	22
C) Basidiospores			100			< 13	0	640	24
D) "Marker" spore types***			100			< 13	0	< 7	0
E) "Other" spore types***,****			119			93	7	67	10

   1) Smuts, Periconia, Myxomycetes   2) Nigrospora   3) Other brown

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 1K 10K Higher >70K		Location spores/m3 66	raw ct 2	Outside spores/m3 230	raw ct 11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582126-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	spores/m3	raw ct
26764505: Foster Harper 811		125		310	8	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**		125		270	5	880	33
B) Cladosporium species spores		100		< 13	0	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		110		40	3	67	10

   1) Smuts, Periconia, Myxomycetes   2) Nigrospora

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)				
Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	< 13	0	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

*** The spores reported in this category come from many different mold types. As a result, the mold types represented by the counts for the "Location" sample may be different than the mold types represented by the counts for the outside sample. The totals shown are the summation of the rounded values for the spores types in the category and may contain more than two significant figures.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582127-1	Overall Mold Source Assessment* (Likelihood spores originated inside)		Overall Exposure Level (Shown on a log scale)			Outside ‡9582120-1 27018986	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	spores/m3	raw ct
26764508: Foster Harper 913		110		480	12	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)		Indicator Exposure Level (Shown on a log scale)			Outside	
	Lower <110 200 Higher 300	Mold Score	Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**		100		160	3	880	33
B) Cladosporium species spores		106		210	4	590	22
C) Basidiospores		100		< 13	0	640	24
D) "Marker" spore types***		100		< 13	0	< 7	0
E) "Other" spore types***,****		110		53	4	67	10

   1) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples.
"Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)			
Lower <200 1K 10K Higher >70K	Location spores/m3	raw ct	Outside spores/m3	raw ct
	53	1	230	11

	Location	Outside
Sample volume (liters)	75	150

* Rated on a scale from low to high. A MoldSCORE™ rating of <150 is low and indicates a low probability of spores originating inside. A MoldSCORE™ rating of >250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A MoldSCORE™ between 150 and 250 indicates a moderate likelihood of indoor fungal growth. EMLab P&K's MoldSCORE™ analysis is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the MoldSCORE™ analysis on other samples (like wall cavity samples) will lead to misleading results.

** The spores of *Penicillium* and *Aspergillus* (and others such as *Acremonium* and *Paecilomyces)* are small and round with very few distinguishing characteristics. They cannot be differentiated by spore trap sampling methods. Also some species with very small spores are easily missed, and may be undercounted. The *Penicillium/Aspergillus* indicator operates on the assumption that the majority of the spores in this category are, in fact, *Penicillium* or *Aspergillus.*

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‡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.
The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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Detailed Results of the Air Sample Analysis

Location Lab ID-version:‡ 9582128-1	Overall Mold Source Assessment* (Likelihood spores originated inside)			Overall Exposure Level (Shown on a log scale)					Outside ‡9582120-1 27018986	
	Lower <110	Higher 200 300	Mold Score	Lower <200 1K	Higher 10K >70K		Location spores/m3	raw ct	spores/m3	raw ct
26764490: Foster Harper 921			105				230	5	2,400	100

Indicators of Mold Growth Indoors

	Indicator Mold Source Assessment* (Likelihood spores originated inside)			Indicator Exposure Level (Shown on a log scale)					Outside	
	Lower <110	Higher 200 300	Mold Score	Lower <200 1K	Higher 10K >70K		Location spores/m3	raw ct	spores/m3	raw ct
A) Penicillium/Aspergillus types**			104				110	2	880	33
B) Cladosporium species spores			100				< 13	0	590	22
C) Basidiospores			105				110	2	640	24
D) "Marker" spore types***			100				< 13	0	< 7	0
E) "Other" spore types***,****			102				13	1	67	10

    1) Smuts, Periconia, Myxomycetes

Other Sample Information

Sample clarity & visibility

	Good	Moderate	Poor
Location		X	
Outside		X	

"Good" = background debris is light enough to pose no difficulty in analyzing air samples. "Poor" = background debris so heavy that it poses a significant difficulty in analyzing the air sample accurately. Results are most likely lower limits.

Comments

Location	None
Outside	None

Other "normal trapping" spores***

Exposure Level (Highly unlikely to be from indoors)					Outside	
Lower <200 1K	Higher 10K >70K		Location spores/m3	raw ct	spores/m3	raw ct
			< 13	0	230	11

	Location	Outside
Sample volume (liters)	75	150

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MoldREPORT
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Understanding Your Air Sample Analysis Results

Description of the Air MoldREPORT™ Analysis

Mold spores are present in virtually all environments, both indoors and outdoors, with a few notable exceptions such as industrial clean rooms and hospital organ transplant rooms. Generally, in "normal" or "clean" indoor environments, indoor spore levels are lower, on average, than outdoor levels. However, even the most simple rules (such as "inside/outside" ratios) are not always appropriate for determining whether there is a source of mold growth indoors, and may provide false or misleading results. One reason these simple methods do not always work is because both outdoor and indoor spores levels vary widely due to factors such as weather conditions and activity levels within the room. For example, even in a "normal" home, spore levels can be higher than outdoors at certain times, such as after vacuuming (when airborne indoor levels could be unusually high) or after a heavy snow (when outdoor levels could be unusually low).

MoldREPORT™ is designed and intended to provide an easily understood report for residential home inspections to help in the assessment of mold growth in the living areas sampled. MoldREPORT™ relies on non-invasive and non-destructive tests, so it cannot guarantee that hidden mold problems will be detected and reported. MoldREPORT™ results apply only to the rooms or areas tested, at the time of sampling. Factors taken into consideration include, but are not limited to, the distribution of spore types, absolute levels inside and outside, relative levels inside and outside, the range and variation of spore levels that normally occur outside, and the types of spores present.

Providing you with a helpful, understandable and top quality interpretation requires special expertise. EMLab P&K recognizes this and has taken the following steps to provide the best possible interpretation of your air sampling results.

1. Your samples were analyzed by EMLab P&K,

2. We utilize the proprietary MoldREPORT™ analysis system, which was developed by a team including leading professionals in the indoor air quality (IAQ) industry.

MoldSCORE™

The MoldSCORE™ indicates the likelihood, based upon the air sample laboratory data, that there is unusual or excessive mold growth in the properly sampled indoor area(s). It is calculated using EMLab P&K's proprietary MoldREPORT™ system, based upon the indicator scores described in the following paragraphs. When the on-site inspection and sampling are done properly, MoldREPORT™ is less likely to give false results than other, simpler methods of interpretation often employed for routine home inspections, such as ratio analysis. It is important to bear in mind that any analytical method, findings, and interpretation should be used with a degree of caution and common sense. Any decisions related to health should be made in consultation with a medical doctor, and nothing in this report is intended to provide medical advice or indicate whether a medical or safety problem exists.

Descriptions of the indicators:

Quantity and concentration of *Penicillium/Aspergillus* spore types

This score indicates the likelihood that spores of *Penicillium* or *Aspergillus* present in the indoor sample originated from indoor sources. A high score suggests that there is a high probability that *Penicillium* or *Aspergillus* is originating indoors, such as from active mold growth. A low score indicates that the spores present are more likely to have originated from outdoor sources and come inside through doors and windows, carried in on people's clothing, or similar methods. *Penicillium* and *Aspergillus* are among the most common molds found growing indoors and are one of the more commonly found molds outside as well. Their spores are frequently present in both outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Additionally, their levels vary significantly based upon activity levels, dustiness, weather conditions, outside air exchange rates, and other factors.

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Understanding Your Air Sample Analysis Results (continued)

Quantity and concentration of *Cladosporium* spores

This score indicates the likelihood that spores of *Cladosporium* present in the indoor sample originated from indoor sources. A high rating indicates that there is probably a source of *Cladosporium* spores in this location. *Cladosporium* is one of the most commonly found molds outdoors and is also frequently found growing indoors. Even more so than *Penicillium* and *Aspergillus,* spores from *Cladosporium* are generally present in outdoor and indoor air, even in relatively clean, mold-growth-free, indoor environments. Its levels also vary based upon activity levels, weather conditions, dustiness, outside air exchange rates, and other factors.

Quantity and concentration of basidiospores

This score indicates the likelihood that basidiospores present in the indoor sample originated from indoor sources. Basidiospores are extremely common outdoors and originate from fungi in gardens, forests, and woodlands. It is rare for the source of basidiospores to be indoors because basidiospores are produced by a group of fungi that includes mushrooms and other "macrofungi" (and are not technically molds). Their concentrations can be extremely high outdoors during wet conditions such as rain. Nevertheless, in certain conditions basidiospores can be produced indoors, and a high rating indicates that there is probably a source of basidiospores indoors. One reason basidiospores are important is that they can be an indicator of wood decay (e.g. "dry rot"), a condition that can dramatically reduce the structural integrity of a building.

Quantity and concentration of "marker" spore types

This score indicates the likelihood that certain distinctive types of mold present in the indoor sample originated from indoor sources. Certain types of mold are generally found in very low numbers outdoors. Consequently, their presence indoors, even in relatively low numbers compared to *Penicillium,* for example, is often an indication that these molds are originating from growth indoors. When present, these mold types are often the clearest indicator of a mold problem. Note, however, that the absence of marker spore types does not mean that a mold problem does not exist in a house; it just means that if a problem is present, it either involves types of mold that are more commonly found both indoors and outdoors, or that the spores from these molds were not airborne at the time of sampling.

Quantity and concentration of "other" spore types

This score indicates the likelihood that other types of mold present in the indoor sample originated from indoor sources. This score includes a heterogeneous group of genera that are not covered by any of the scores discussed above, and so it is difficult to make generalizations about this group. Molds in the "other" category are generally found outdoors in moderate numbers, and are therefore not considered markers of indoor growth. They are frequently found indoors but in lower numbers compared to *Cladosporium* and *Penicillium/Aspergillus* spores.

Other Sample Information:

Sample clarity and visibility

Air samples collect dirt and debris in addition to mold spores. Higher levels of debris make analysis more difficult, because they obscure the analyst's view of spores and can therefore lead to undercounting of the mold spores present. When sample clarity and visibility is rated "poor", the analytical results should be regarded as minimal and actual counts may be higher than reported.

Other "normal trapping" spores

Some molds do not grow on wet building materials and, consequently, are not usually indicative of building problems, or growth on building surfaces. Strict plant pathogens, for example, even if present in high numbers indoors, are not an indication of a building leak or mold growth on a wall or carpet. This section of the report focuses on the exposure level that may be due to these spore types.

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Understanding Your Air Sample Analysis Results (continued)

Sample volume
The "sample volume" indicates the volume of air sampled and is reported in liters. A high volume indicates a greater sensitivity, but is more likely to result in poor sample clarity and visibility. A low volume is more likely to have good sample clarity and visibility, but has less sensitivity.

Comments
This is where analysts can comment on unusual details or add additional information that is not captured by the other areas of the air sampling report.

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Interpretive Guidelines to MoldSCORE™ Levels

MoldSCORE™ Level: LOW
A low MoldSCORE™ indicates the air sample did not detect, relative to the outside air, the presence of indoor mold growth in this room at the time of sampling. This result, by itself, is evidence for, but does not prove, the absence of indoor mold growth in the location sampled.

Mold is a living organism that can grow very rapidly under certain conditions. If any portion of the room tested is, or has been, damp for an extended period since the time of testing, the likelihood of mold growth may have increased substantially since the time of the inspection.

MoldSCORE™ Level: MODERATE
The air sampling MoldSCORE™ indicated the possibility of mold growth indoors. Generally, a MODERATE level means that the results are inconclusive, and suggests that a more detailed inspection may make sense if there are any other reasons to believe that mold growth could be a problem in this location. Indoor mold growth is a possibility, but was not confirmed in the areas sampled at the time of the inspection. Factors such as recent cleaning, HVAC cycles, high winds, rain, or other indoor or outdoor conditions could have contributed to a MODERATE result in the absence of indoor mold growth. If mold growth is found, regardless of the magnitude of the growth, it is recommended that the growth be physically removed using appropriate controls and precautions. If mold has been located and removed, it is also important to identify and correct the source of moisture or dampness that allowed the mold to grow. If the affected area becomes moist again, mold growth will occur again. We recommend that you consult a professional if you are not familiar with how to locate and safely remove mold growth or how to identify and correct moisture problems that may exist.

Mold is a living organism that can grow very rapidly under certain conditions. If any portion of the room tested is, or has been, damp for an extended period since the time of testing, the likelihood of mold growth may have increased substantially since the time of the inspection.

MoldSCORE™ Level: HIGH
The air sampling MoldSCORE™ indicated a high likelihood of mold growth in the area tested at the time of the inspection. This result is NOT necessarily an indication that any such mold growth was extensive. If mold growth is found, regardless of the magnitude of the growth, it is recommended that the growth be physically removed using appropriate controls and precautions. If mold has been located and removed, it is also important to identify and correct the source of moisture or dampness that allowed the mold to grow. If the affected area becomes moist again, mold growth will occur again. We recommend that you consult a professional if you are not familiar with how to locate and safely remove mold growth or how to identify and correct moisture problems that may exist.

Health concerns
Neither this report nor any MoldSCORE™ rating is intended to provide medical advice, nor shall it be interpreted as an indicator of potential medical or safety problems. If you have concerns or questions relating to your health, please contact your physician for advice.

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Important Information, Terms and Conditions Relating to your MoldREPORT™

The study and understanding of molds is a progressing science. Because different methods of sampling, collection and analysis exist within the indoor air quality industry, different inspectors or analysts may not always agree on the mold concentrations present in a given environment. Additionally, the airborne levels of mold change frequently and by large amounts due to many factors including activity levels, weather, air exchange rates (indoors), and disturbance of growth sites. It is possible for report interpretations and ranges of accuracy to vary since comprehensive, generally accepted industry standards do not currently exist for indoor air quality inspections of mold in residential indoor environments. MoldREPORT™ is intended to provide an analysis based upon samples taken at the site at the time of the inspection. Mold levels can and do change rapidly, especially if home building materials or contents remain wet for more than 24 hours, or if they are wet frequently. MoldREPORT™ is not intended to provide medical or healthcare advice. All allergy or medical-related questions and concerns, including health concerns relating to possible mold exposure, should be directed to a qualified physician. If this report indicates scores that are higher than in typical indoor living spaces relative to the outdoor environment, or indicates any findings that are of concern to you, further evaluation by a trained mold professional or a Certified Industrial Hygienist (CIH) may be advisable.

Warranties, legal disclaimers and limitations
MoldREPORT™ is designed and intended for use only in residential home inspections to help in the assessment of mold growth in the living areas sampled. Our laboratory analysis and report are based on the samples submitted to EMLab P&K. The inspection(s) and sampling should be performed only by a licensed and professional home inspector, environmental mold specialist, industrial hygienist or residential appraiser trained and qualified to conduct mold inspections in residential buildings. Client agrees to these conditions for the on-site project inspection.

This MoldREPORT™ is generated by EMLab P&K at the request of, and for the exclusive use of, the EMLab P&K client named on this report. The analysis of the test samples is performed by EMLab P&K. EMLab P&K's policy is that reports and test results will not be released to any third party without prior written consent from EMLab P&K's client. This report applies only to the samples taken at the time, place and location referenced in the report and received by EMLab P&K, and to the property and weather conditions existing at that time only. Please be aware, however, that property conditions, inspection findings and laboratory results can and do change over time relative to the original sampling due to changing conditions, the normal fluctuation of airborne mold, and many other factors. Client and reader are advised that EMLab P&K does not furnish, and has no responsibility for, the inspector or inspection service that performs the inspection or collects the test samples. It is the responsibility of the end-user of this report to select a properly trained professional to conduct the inspection and collect appropriate samples for analysis and interpretation by MoldREPORT™. None of EMLab P&K, EMLab P&K or their affiliates, subsidiaries, suppliers, employees, agents, contractors and attorneys (each an "EMLab P&K-related party") are able to make and do not make any determinations as to the safety or health condition of a property in this report. The client and client's customer are solely responsible for the use of, and any determinations made from, this report, and no EMLab P&K-related party shall have any liability with respect to decisions or recommendations made or actions taken by either the client or the client's customer based on the report.

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The invalidity or unenforceability, in whole or in part, of any provision, term or condition herein shall not invalidate or otherwise affect the enforceability of the remainder of these provisions, terms and conditions.

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Scope and Limitations of Report and Analysis

The scope of the MoldREPORT™ system is limited to EMLab P&K's proprietary MoldSCORE™ analysis of the air and surface samples taken at the time of the inspection. EMLab P&K cannot be liable, in any form of action, for any items that are not included within the scope of the MoldREPORT™ system.

MoldREPORT™ Inspection Limitations

MoldREPORT™ results are based upon mold air and surface samples. Mold surface samples are useful for confirming and identifying mold growth while air samples measure airborne mold levels.

This report provided by EMLab P&K is based upon the assumption that the information provided by the inspector is true and correct, that a sufficient number of mold and air samples were collected at all the appropriate locations following proper inspection and sampling protocols, and that the mold samples collected represent normal conditions at the site sampled. EMLab P&K is not able to, and cannot, guarantee the skill level or experience of the inspector performing the MoldREPORT™ inspection, nor can it guarantee that the samples have been properly collected at the site or are representative of normal conditions since many factors outside of EMLab P&K's (and the inspector's) control can and do substantially affect mold levels. Consequently, EMLab P&K cannot guarantee the accuracy of the interpretation provided herein. It is the responsibility of the inspector to insure that the mold samples were collected properly. MoldREPORT™ relies on non-invasive and non-destructive tests, so it cannot guarantee that hidden mold problems will be detected and reported. MoldREPORT™ results apply only to the rooms sampled, not to the entire building or any other rooms. It is the responsibility of the property owner, potential purchaser or other end-user of this report to select a properly trained and qualified inspector.

About Air Sample Sampling and Analysis

EMLab P&K requires at least one outdoor air sample and one indoor air sample in order to make indoor/outdoor comparisons and assessments of airborne mold levels, which are an integral part of the EMLab P&K MoldREPORT™ system. The indoor air samples taken can be representative of the airborne mold present in the area sampled. The analysis and interpretation of these air samples is proprietary and is based upon: relative levels of spores present, quantities and concentration of *Penicillium/Aspergillus* type spores, quantity and concentration of *Cladosporium* spores, quantity and concentration of basidiospores, quantity and concentration of "marker" spore types, quantity and concentration of "other" spore types, and the distribution of mold spore types. Spore identification is performed visually by trained analysts according to industry norms. Using visual identification, most mold spores lack sufficient distinguishing characteristics to allow for species identification, so the MoldREPORT™ analysis is generally performed at the genus level. Currently there are no generally-accepted protocols or regulations regarding air sampling for molds, in large part due to the inability of any single technique to provide a complete analysis of all mold spores and mold growth in an area. Air sampling for MoldREPORT™ can be performed using any standard "spore trap" method, which are also called "non-viable air sampling methods" because spore traps do not require the germination and growth of the spores before identification. Commonly used spore trap equipment for performing air sampling for mold includes Zefon Air-O-Cell™ Cassettes, Burkard™ samplers, and Allergenco™ samplers.

About Surface Sampling and Analysis

Surface sampling can be useful for differentiating between mold growth and stains, for identifying the type of mold growth present (if present), and, in some cases, identifying signs of mold growth in the vicinity. Although not required, surface sampling can improve the accuracy of the results and interpretation of the inspected environment if sampled correctly. EMLab P&K accepts surface samples in the form of swabs, tapes, or bulks in order to perform a direct examination of a specific location. The MoldREPORT™ analysis system uses the direct examination data in addition to the MoldREPORT™ air sample analysis.

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Glossary

Background Debris - Material(s) found on the air sample other than mold spore(s) or mycelia. Examples include skin cells, insect parts, and fibers.

False Positive - A test result that incorrectly indicates mold growth, when in reality there is none. For example, an air sample test result indicating indoor mold growth, when no mold growth is actually present is a "False Positive."

False Negative - A test result that shows no mold growth, when in reality mold growth is present. For example, an air sample test result indicating no indoor mold growth, when mold growth is actually present.

Fungi - A kingdom that includes yeasts, molds, smuts, and mushrooms. Fungi are not animals, plants or bacteria, but their own kingdom.

HVAC - Heating, Ventilation, and Air Conditioning (HVAC) systems are possible reservoirs for mold growth.

IAQ - Indoor Air Quality (IAQ) is the main focus of EMLab P&K and the majority of its customers.

Industrial Hygienist - A professional who monitors exposure to environmental factors that can affect human health. Examples of environmental factors include chemicals, heat, asbestos, noise, radiation, and biological hazards.

Marker Spores - Spore types, such as *Chaetomium* and *Stachybotrys,* that when found indoors, even in moderate numbers are an indication of indoor mold growth.

Note: This glossary is intended to provide general information about commonly occurring molds, and is not intended to be a complete source.

Alternaria:
Distribution: *Alternaria* is one of the most common molds and is abundant worldwide. This genus contains around 40 to 50 different species, only a few of which are commonly found indoors.
How it is spread: *Alternaria* spores are easily dispersed through the air by wind.
Where it is found outdoors: *Alternaria* is common outdoors in soil, dead organic debris, foodstuffs, and textiles. It is also a plant pathogen and is frequently found on dead or weakened plants.
Where it is found indoors: *Alternaria* can grow on a variety of substrates indoors when moisture is present.

Acremonium:
Distribution: *Acremonium* is a common mold, including about 80 to 90 different species.
How it is spread: *Acremonium* produces wet slimy spores and is normally dispersed through water flow or droplets, or by insects. Old dry *Acremonium* spores can sometimes be dispersed through the air by wind.
Where it is found outdoors: *Acremonium* is found in soil, on dead organic material and debris, hay, and foodstuffs.
Where it is found indoors: *Acremonium* can be found anywhere indoors, but requires very wet conditions in order to proliferate. The spores probably require active disturbance for release.

Aspergillus: (see *Penicillium/Aspergillus*)

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Glossary (continued)

Basidiospores:
Distribution: Basidiospores are produced by a very large and diverse group of fungi called basidiomycetes, which contains over 1000 different genera. This group includes many well-known macrofungi, such as mushrooms. Basidiospores are often abundant in outdoor air and sometimes in indoor air.
How they are spread: Many types of basidiospores are actively released into the air during periods of high humidity or rain. Once the spores are expelled into the air, they are dispersed easily by wind.
Where they are found outdoors: Basidiomycetes are very common outdoors and can be found in gardens, forests, grasslands, and anywhere there is a substantial amount of dead organic material. They are also found on or near plants and some are known to be plant pathogens.
Where they are found indoors: Basidiospores found indoors typically come from outdoor sources and are carried inside by airflow or on clothing. Certain kinds of basidiomycetes can grow indoors, such as those that cause "dry rot", which can cause structural damage to wood. Occasionally, other basidiomycetes such as mushrooms can be found indoors, but this is not common. Generally, basiodiomycetes require wet conditions for prolonged periods in order to grow indoors.

Bipolaris / Dreschlera:
Distribution: *Bipolaris* and *Dreschlera* are two separate genera of molds that are so visually similar that they are commonly discussed together as a group. Both genera include around 30 - 40 different species.
How they are spread: *Bipolaris / Dreschlera* spores are easily dispersed through the air by wind.
Where they are found outdoors: *Bipolaris / Dreschlera* type spores are most abundant in tropical or subtropical climates. They can grow in soils, on plant debris and grasses, and are known to be plant pathogens.
Where they are found indoors: *Bipolaris / Dreschlera* can grow on a variety of indoor substrates when moisture is present.

Ceratocystis / Ophiostoma:
Distribution: *Ceratocystis / Ophiostoma* are two separate genera of molds that are so visually similar that they are commonly discussed together as a group. These genera contain around 50 to 60 different species.
How they are spread: *Ceratocystis / Ophiostoma* produce wet slimy spores and are normally dispersed through water flow, droplets, or by insects. These spores are rarely identified in air samples.
Where they are found outdoors: *Ceratocystis / Ophiostoma* are very common in commercial lumberyards and forests.
Where they are found indoors *Ceratocystis / Ophiostoma* are abundant on wood framing material in the home, although the spores are rarely found in air samples. This mold is sometimes called "lumber mold".

Chaetomium:
Distribution: *Chaetomium* is a common mold worldwide. This genus contains around 80 - 90 different species.
How it is spread: *Chaetomium* spores are formed inside fruiting bodies. The spores are released by being forced out through a small opening in the fruiting body. The spores are then dispersed by wind, water drops, or insects.
Where it is found outdoors: *Chaetomium* can be found in soil, on various seeds, cellulose substrates, dung, woody materials and straw.
Where it is found indoors: *Chaetomium* can grow in a variety of areas indoors, but is usually found on cellulose-based or woody materials in the home. It is very common on sheetrock paper that is or has been wet.

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Glossary (continued)

Cladosporium:
Distribution: *Cladosporium* is an abundant mold worldwide and is normally one of the most abundant spore types present in both indoor or outdoor air samples. This genus contains around 20 - 30 different species.
How it is spread: *Cladosporium* produces dry spores that are formed in branching chains. Spores are released by twisting of the spore-bearing hyphae as they dry. Thus, the spores are most abundant in dry weather.
Where it is found outdoors: *Cladosporium* is found in a wide variety of soils, in plant litter, and on old and decaying plants and leaves. Some species are plant pathogens
Where it is found indoors: *Cladosporium* can be found anywhere indoors, including textiles, bathroom tiles, wood, moist windowsills, and any wet areas in a home. Some species of *Cladosporium* grow at temperatures near or below 0(C) / 32(F) and can often be found on refrigerated foodstuffs and even frozen meat.

Curvularia:
Distribution: *Curvularia* is a cosmopolitan fungus and includes approximately 30 different species.
How it is spread: *Curvularia* produces dry spores that are formed in fragile chains and is very easily dispersed through the air by wind.
Where it is found outdoors: *Curvularia* is most common in tropical or subtropical regions. It is found in soil and on debris of tropical plants.
Where it is found indoors: *Curvularia* can be found growing on a variety of substrates indoors.

Epicoccum:
Distribution: *Epicoccum* is a cosmopolitan mold that includes only two species.
How it is spread: *Epicoccum* produces large dry spores that are easily dispersed through the air by wind.
Where it is found outdoors: *Epicoccum* can be found in soils or on plant debris.
Where it is found indoors: *Epicoccum* is commonly found on many different substrates indoors including paper, textiles, and insects.

Memnoniella:
Distribution: *Memnoniella* is a cosmopolitan mold genus that includes approximately five species. It is frequently found in conjunction with *Stachybotrys* species due to its similar ecological preferences.
How it is spread: *Memnoniella* produces dry spores that are easily dispersed through the air by wind.
Where it is found outdoors: *Memnoniella* can be found outdoors in soil, in plant debris or litter, and as pathogens on some types of living plants.
Where it is found indoors: *Memnoniella* can grow on a variety of substrates indoors, but mainly can be found on wet cellulose-based materials, such as wallboard, jute, wicker, straw baskets, paper and other wood by-products.

Paecilomyces:
Distribution: *Paecilomyces* is ubiquitous in nature and includes between 9 and 30 different species, depending on the taxonomic system used. Its spores are visually similar to *Penicillium / Aspergillus* types of spores.
How it is spread: *Paecilomyces* produce dry spores that are easily dispersed through the air by wind.
Where it is found outdoors: *Paecilomyces* is found outdoors in soils and decaying plant matter, composting processes, legumes and cottonseeds. Some species parasitize insects.
Where it is found indoors: *Paecilomyces* can be found on a number of materials indoors. It has been isolated from jute fibers, papers, PVC, timber, optical lenses, leather, photographic paper, cigar tobacco, harvested grapes, bottled fruit, and fruit juice undergoing pasteurization.

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Glossary (continued)

Penicillium / Aspergillus:
Distribution: *Penicillium / Aspergillus* are two separate genera of molds that are so visually similar that they are commonly discussed together as a group. Together, there are approximately 400 different species of *Penicillium / Aspergillus.*
How it is spread: *Penicillium / Aspergillus* produce dry spore types that are easily dispersed through the air by wind. These fungi serve as a food source for mites, and therefore can be dispersed by mites and various insects as well.
Where it is found outdoors: *Penicillium / Aspergillus* are found in soils, decaying plant debris, compost piles, fruit rot and some petroleum-based fuels.
Where it is found indoors: *Penicillium / Aspergillus* are found throughout the home. They are common in house dust, growing on wallpaper, wallpaper glue, decaying fabrics, wallboard, moist chipboards, and behind paint. They have also been isolated from blue rot in apples, dried foodstuffs, cheeses, fresh herbs, spices, dry cereals, nuts, onions, and oranges.

Stachybotrys:
Distribution: *Stachybotrys* is ubiquitous in nature. This genus contains about 15 species.
How it is spread: *Stachybotrys* produces wet slimy spores and is commonly dispersed through water flow, droplets, or insect transport, less commonly through the air.
Where it is found outdoors: *Stachybotrys* is found in soils, decaying plant debris, decomposing cellulose, leaf litter and seeds.
Where it is found indoors: *Stachybotrys* is common indoors on wet materials containing cellulose such as wallboard, jute, wicker, straw baskets, and other paper materials.

Torula:
Distribution: *Torula* is a cosmopolitan microfungus and includes approximately eight different species
How it is spread: *Torula* produces dry spores that are easily dispersed through the air by wind.
Where it is found outdoors: *Torula* is most common in temperate regions and has been isolated from soils, dead herbaceous stems, sugar beet roots, groundnuts, and oats.
Where it is found indoors: *Torula* is common indoors on wet materials containing cellulose, such as wallboard, jute, wicker, straw baskets, and other paper materials.

Ulocladium:
Distribution: *Ulocladium* is ubiquitous in nature and includes approximately nine different species.
How it is spread: *Ulocladium* produces dry spores that are easily dispersed through the air by wind.
Where it is found outdoors: *Ulocladium* is common outdoors in soils, dung, paint, grasses, wood, paper, and textiles.
Where it is found indoors: *Ulocladium* is common indoors on very wet materials containing cellulose such as wallboard, jute, wicker, straw baskets, and other paper materials. *Ulocladium* requires a significant amount of water to flourish.

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Useful Websites:

www.acgih.org
American Conference of Governmental Industrial Hygienists - information on IAQ and useful links.

www.aiha.org
American Industrial Hygiene Association - general IAQ information

www.calepa.ca.gov
California Environmental Protection Agency - California IAQ resources

www.emlab.com
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www.epa.gov
Environmental Protection Agency - information regarding prevention and remediation of mold

www.health.state.ny.us
New York State Department of Health - New York state recommendations for IAQ, indoor mold inspections, remediation, and prevention

www.moldreport.com
MoldREPORT™ - online store, and other information about MoldREPORT™

www.nih.gov
National Institutes of Health - information regarding environmental health issues, including IAQ

www.niehs.nih.gov
National Institute of Environmental Health Sciences - information on mold