



contact@hayesmicrobial.com
http://hayesmicrobial.com/

Analysis Report prepared for

Affordable Remediation & Emergency Services

5 Kimberly Court
Manalapan, NJ 07726
Phone: 718-614-7323

Job Number: 102016A
Job Name:

Date Sampled: 10-20-2016
Date Analyzed: 10-25-2016
Report Date: 10-25-2016

EPA Laboratory ID# VA01419



AIHA EMPAT Lab ID# 188863



Mold License: LAB1021



License: #PH-0198



HAYES

MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

HMC #16030469

**Affordable Remediation & Emergency Services
5 Kimberly Court
Manalapan, NJ 07726**

October 25, 2016

Client Job Number: 102016A
Client Job Name:

Dear Affordable Remediation & Emergency Services,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On October 25, 2016 we received 3 samples by FedEx for the job referenced above. 3 samples were received in good condition.

The results in this analysis pertain only to this job, collected on the stated date and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial Consulting. In no event, shall Hayes Microbial Consulting or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of your use of the test results.

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC



HAYES

MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

Affordable Remediation & Emergency Services
5 Kimberly Court
Manalapan, NJ 07726
Phone: 718-614-7323

Spore Trap Analysis
SOP #HMC101

HMC #16030469

Job Number: 102016A	Job Name:	Date Collected: 10/20/2016
Collected by: Domonick Defendis		Date Received: 10/25/2016
Email: ddefendis@affordableremediation.com		Date Reported: 10/25/2016

HMC ID Number	16030469 - 1	16030469 - 2		
Sample ID#	1	2		
Sample Name	Tub	Bedroom		
Sample Volume	75 liters	75 liters		
Reporting Limit	13 spores/M3	13 spores/M3		
Background \ Fragments	2 \ ND	2 \ ND		

Organism	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total		
Alternaria								
Ascospores	2	27	< 1%					
Aspergillus Penicillium	> 5600	> 74667	> 99%	2	27	18.5%		
Basidiospores				1	13	8.9%		
Bipolaris Drechslera								
Chaetomium				1	13	8.9%		
Cladosporium				7	93	63.7%		
Curvularia								
Epicoccum								
Fusarium								
Memnoniella								
Myxomycetes								
Pithomyces								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unspecified Spore								
Total	> 5602	> 74694		11	146			

Water Damage Indicator Common Allergen

Signature: P. Ramesh

Date: 10/25/2016

Reviewed by: Stephen A. Hayes

Date: 10/25/2016



HAYES

MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

Affordable Remediation & Emergency Services
5 Kimberly Court
Manalapan, NJ 07726
Phone: 718-614-7323

Particle Analysis
SOP #HMC114

HMC #16030469

Job Number: 102016A	Job Name:	Date Collected: 10/20/2016
Collected by: Domonick Defendis		Date Received: 10/25/2016
Email: ddefendis@affordableremediation.com		Date Reported: 10/25/2016

HMC ID Number	16030469 - 3			
Sample ID#	2			
Sample Name	Bedroom			
Sample Volume	75 liters			
Reporting Limit	13 Particles / m3			

Particle	Raw Count	Count / m3	% of Total			
Dander	480	6400	97.4%			
Cellulose Fibers	6	80	1.2%			
Synthetic Fibers						
Fiberglass Fibers						
Wood Fibers						
Animal Hair						
Plant Hair						
Human Hair						
Dust Mites, Parts						
Carpet Beetle larvae parts						
Insect Parts						
Insect Frass (Feces)						
Feather Barbule						
Pollen						
Gypsum						
Opaque Particles						
Talc	5	67	1.0%			
Silicates	2	27	< 1%			
Mineral Salts						
Ash-like Soot						
Char-like Soot						
Aciniform-like Soot						
Total	493	6574				

Signature: P. Ramesh

Date: 10/25/2016

Reviewed by: Stephen A. Hayes

Date: 10/25/2016



HAYES

MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

Affordable Remediation & Emergency Services
5 Kimberly Court
Manalapan, NJ 07726
Phone: 718-614-7323

Spore Trap Information

HMC #16030469

Reporting Limit	The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated.
Blanks	Results have not been corrected for field or laboratory blanks.
Background	<p>The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 4 and each level is determined as follows:</p> <p>ND : No background detected. (Pump or cassette malfunction.) Recollect sample.</p> <p>1 : <5% of field occluded. No spores will be uncountable.</p> <p>2 : 5-25% of field occluded.</p> <p>3 : 25-75% of field occluded.</p> <p>4 : 75-90% of field occluded.</p> <p>5 : >90% of field occluded. Suggest recollection of sample.</p>
Fragments	Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.
Water Damage Indicators	These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.
Common Allergens	Although all molds are potential allergens, these are the most common allergens that may be found indoors.



HAYES

MICROBIAL CONSULTING
 3005 East Boundary Terrace, #F
 Midlothian, VA 23112, USA
 804.562.3435 Fax: 804.447.5562

Affordable Remediation & Emergency Services
 5 Kimberly Court
 Manalapan, NJ 07726
 Phone: 718-614-7323

Particle Information

HMC #16030469

Particle Analysis

Hayes Microbial Consulting Particle Analysis test is based on the initial screening procedures from ASTM #D6602. HMC only does light, polarized light, and phase contrast microscopy. No SEM or X-ray defraction is done. Below are some guidelines to help you figure out the totals for the dander, fibers, pollen, and other particle counts by light microscopy.

*Estimated Normal Ranges are based on experience only. There are no standard ranges for this type of testing.

Particle		* Estimated Normal Range	
		Air	Surface
Dander	Home (Carpeted Areas)	1,000-6,000 / M3	10,000-16,000 / cm2
	Home (Hard Surface Areas)	500-5,000 / M3	5,000-16,000 / cm2
	Office or Classroom (Carpeted)	4,000-12,000 / M3	14,000-24,000 / cm2
	Office or Classroom (Hard Surface Areas)	3,000-10,000 / M3	12,000-20,000 / cm2
Cellulose Fibers		0-250 / M3	0-1,600 / cm2
Synthetic Fibers		0-250 / M3	0-1,600 / cm2
Fiberglass Fibers		0-60 / M3	0-400 / cm2
Gypsum Fibers		0-400 / M3	0-1,800 / cm2
Talc		0-250 / M3	0-2,000 / cm2
Dust Mites (parts)		0-30 / M3	0-200 / cm2
Insect Parts		0-30 / M3	0-200 / cm2
Animal Hair		0-30 / M3	0-200 / cm2
Wood Fibers		0-60 / M3	0-200 / cm2
Plant Hairs		0-60 / M3	0-200 / cm2
Human Hair		0-60 / M3	0-200 / cm2
Carpet Beetle Larvae		0-40 / M3	0-200 / cm2
Insect Frass		0-40 / M3	0-400 / cm2
Feather Barbules		0-40 / M3	0-200 / cm2
Opaque Particles		0-100 / M3	0-600 / cm2
Starch		0-40 / M3	0-200 / cm2
Ash-like Soot		0-60 / M3	0-400 / cm2
Char-like Soot		0-60 / M3	0-200 / cm2
Aciniform-like Soot		0-100 / M3	0-800 / cm2
Silicates	(Varies greatly depending on area)	0-500 / M3	0-2,800 / cm2
Pollen	Varies with outdoor pollen levels and whether there are live indoor plants.		
		M3 = per cubic meter	cm2 = per sq. centimeter



Ascospores

Habitat: A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report.

Health Effects: Health affects are poorly studied, but many are likely to be allergenic.

Aspergillus|Penicillium

Habitat: The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates.

Health Effects: This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions.

Basidiospores

Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings.

Health Effects: Common allergens and are also associated with hypersensitivity pneumonitis.

Chaetomium

Habitat: Ascomycete fungus, commonly isolated from soil and decaying plant materials. It is cellulolytic and grows well indoors on damp sheetrock and other paper substrates. It is often found growing with *Stachybotrys*.

Health Effects: It is reported to be allergenic and may produce toxins.

Cladosporium

Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.

Health Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.



HAYES

MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

Affordable Remediation & Emergency Services
5 Kimberly Court
Manalapan, NJ 07726
Phone: 718-614-7323

Particle Descriptions

HMC #16030469

Cellulose Fibers

Description: Cellulose fibers are natural fibers from plant material.

Sources: Sources of cellulose fibers are paper, cardboard, insulation material.

Dander

Description: Dander is dead skin cells. The average person sheds about 600,000 skin cells per day.

Sources: Sources are people and animals.

Silicates

Description: Silicates comprise the majority of the Earth's crust. Sand, Portland cement, and thousands of minerals are examples of silicates.

Sources: Sources are sand and cement.

Talc

Description: Talc is a mineral composed of hydrated magnesium silicate

Sources: Sources of talc are powder, personal hygiene and cosmetics products, and in powdered laundry detergents and carpet cleaners.
