



MEMORANDUM

Date: September 23, 2019

To: The Honorable Ally Miller, Member
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator 

Re: **Your Request Related to Mold in the District 1 Office**

As you know, Facilities Management staff conducted a thorough investigation of your office for mold contamination. The attached report finds no mold was detected and your office is safe to occupy.

A copy of this communication will be provided to other members of the Board of Supervisors and their staff since they may also have concerns regarding the possibility of mold in their work environment.

Facilities staff are now reviewing several options to repair the windows/façade of this building to prevent water intrusion. The cost of this repair will be funded from the Facilities Renewal Fund.

CHH/anc

Attachment

c: The Honorable Chairman and Members, Pima County Board of Supervisors
Jan Leshar, Chief Deputy County Administrator
Tom Burke, Deputy County Administrator for Administration
Lisa Josker, Director, Facilities Management



Date: September 20, 2019

To: Lisa Josker

From: Jim Faas 

Re: Mold inspection and testing, Administration East building, floor 11

Pima County Facilities Management completed an assessment for mold growth in the District 1 Supervisor office located on the 11th floor of the Administration East Building. This assessment was completed on September 18, 2019. Water leakage occurs in the office along the north window wall during rain events. The most recent rain event caused the carpet behind the sofa to become wet. Occupants in the office use towels to absorb water that leaks through the window frames.

This assessment included visual inspection, moisture mapping, and collection of air and surface samples for mold. Surfaces in the affected office area were inspected to determine if readily apparent mold growth was present. Visible mold growth was not identified. Surfaces were also visually inspected and touched to determine if any surfaces were still wet. No visibly wet surfaces were present and dampness was not sensed on any surface that was touched.

Moisture mapping was conducted using a Protimeter SurveyMaster dual-mode moisture meter and a FLIR E60bx infrared thermal imager. The moisture meter is capable of detecting approximately 1% moisture. The FLIR imager is capable of detecting minute changes in surface temperature that occur when water evaporates from building materials. The FLIR imager is the most sensitive instrument available to detect low levels of moisture in building materials and is capable of detecting moisture that can be missed by the moisture meter.

Moisture meter measurement of the walls and floors indicate the areas were dry (less than 1% moisture). Surfaces were subsequently inspected using the FLIR infrared imager. FLIR imaging of wall and floor surfaces indicated these surfaces were dry.

Air samples for mold were collected on Zefon Air-O-Cell spore traps using a Zefon mini pump. Samples were collected over a five minute sampling period. Samples were collected inside Supervisor Miller's office and in the common areas of the District 1 Supervisor office. Control samples were collected in the 11th floor conference room where no windows are present and in the 3rd floor northwest office in the Administration West building where window leaks have occurred. Outdoor air samples were also collected for comparison to indoor samples. Table 1 summarizes results of total airborne fungi sampling.

Surface samples for mold were collected using tape lift sampling techniques. This sampling technique collects surface deposits including mold growth. This method is capable of detection of actual mold growth as well as settled spores. Table 2 summarizes surface sampling locations.

Samples were submitted to Fiberquant Analytical Services in Phoenix, AZ for analysis. Fiberquant is an AIHA EMLAP Accredited laboratory. Laboratory reports are attached to this report.

Table 1 Fungi Air Sample Results

Sample ID	Sample Location	Results (mold structures per cubic meter-s/M ³)
1-9-18	ADE floor 11, conference room – control sample	64 s/M ³
2-9-18	ADE floor 11, Supervisor Miller’s office	<64 s/M ³
3-9-18	ADE floor 11, District 1 office common area	77 s/M ³
4-9-18	ADW floor 3, northwest office – control sample	77 s/M ³
5-9-18	Outdoors, north of ADE	4,200 s/M ³
6-9-18	Outdoors, south of ADE	3,100 s/M ³
7-9-18	Outdoors, west of ADE	4,800 s/M ³

Table 2 Fungi Surface Sample Results

Sample ID	Sample Location	Results (mold types detected and percent)
S-1	ADE floor 11, Supervisor Miller’s office, window sills	No mold detected
S-2	ADE floor 11, Supervisor Miller’s office, carpet behind sofa	No mold detected
S-3	ADE floor 11, District 1 office common area, south upper shelf	No mold detected

At the present time, there are no numeric exposure standards for airborne or surface mold exposures. Mold is naturally present in outdoor environments throughout the world. Mold will typically be present in indoor environments as a result of air exchange between outdoor and indoor environments.

Several guidelines are available which provide guidance for evaluating airborne mold exposures. These guidelines generally agree that indoor airborne mold concentrations should be less than outdoor concentrations and the types of mold present indoors should be similar to types present outdoors. If indoor concentrations are higher than outdoor concentration or if the types of mold present indoors are significantly different from outdoor types, an indoor source of mold may be indicated.

In this case, indoor concentrations were significantly less than outdoor concentrations and the types of mold found inside the building were similar to types found outdoors.

Surface samples indicate no mold growth was found on any of the surfaces sampled.

Based on the findings of this inspection the 11th floor District 1 Supervisor offices are safe for occupancy.

Rain water leakage around window frames in the Administration East building is a known problem and remedies are currently being evaluated. Until water leakage is stopped, measures to prevent water saturation of carpet and building materials should be employed. These measures should include using disposable absorption material rather than towels to absorb the water.

Copies of the laboratory reports are attached. If you have any questions, please feel free to call me at 724-3078.



Modified ASTM D7391-17 Fungal Spore Count on Spore Trap Sample, Stratified

JobNumber: 201909037

Client: PIMA COUNTY FACILITIES MGMT

150 W CONGRESS 3RD FLR

TUCSON, AZ 85701-0000

Office Phone: (520) 724-3078

FAX: (520) 798-1407

Samples: 7 MYC **Rec:** 9/19/2019 **Method:** Stratified SOP SPCT2

Spore Count of Spore Trap Sample, 2 Mags

Client Job: ADE-11 Mold Inspection

PO Number: MA 18*303

Report Date: 9/20/2019

Date Analyzed: 9/19/2019

Routing Number: -

Method and Analysis Information: Fiberquant Internal SOP: SPCT2

Each incoming spore trap sample is disassembled, if needed, and the sample surface assembled onto a new 1"x3" glass slide marked with the sample's unique lab identification number. Approximately 25 ul of stain is placed on the sample, and a glass cover slip is placed on top of the stain to complete the sample mounting preparation. The entire sample is then scanned at 500-630x magnification (depending on microscope used) on an optical light microscope. This initial scan is used to count relatively large and easily identifiable spores. Clumps and strings of small spores are also counted during this scan, using higher magnification if necessary for identification. Generally, single or scattered small spores are not counted at this magnification, although they might be in certain lightly loaded samples. Not all small spores (e.g., Cladosporium, Penicillium/Aspergillus, basidiospores, ascospores) are visible or identifiable at that magnification, however, so a second scan of a portion of the sample (nominally 15 passes across the debris zone) is made at 1000x magnification using oil immersion optics. This magnification allows the identification of single small spores that may not have been evident at the lower magnification. The resulting counts from the two scans are combined, for each genus or category, into 1) spores/sample (which is actual if the spore or category has been counted for the entire slide, or calculated if the spore or category has been counted at 1000x), 2) spores/m³ and 3) percentage of spores vs total spores. Each calculated value in the "Calc. Cts/smp", "Calc. Cnts/m³" and "Calc. %" each column is reported to 2 significant digits, which can result in the total of the column numbers being different than the calculated total due to rounding; however, each number is correct to the number of significant digits presented. Percents are reported to the nearest whole percent.

The counting rules were as follows: Mold spores within the field of view are counted and, if possible, unambiguously categorized according to genera. Those spores that cannot be unambiguously identified are categorized as miscellaneous/unidentified. Results are reported to the analytical sensitivity (hypothetical observation of one count during the analysis). Spore types having zero counts are reported as < the analytical sensitivity. The coefficient of variation (CV) for this analysis is estimated to be 0.2 for raw counts >50, and as high as 1.0 for low counts. The spores counted in this analysis may or may not be able to produce a living colony of mold. Therefore, this analysis is sometimes referred to as a "non-viable" count or method. This distinguishes it from a count of colonies on agar, referred to as a "viable" count. "Max. % coverage" equals the maximum area of the spore trap covered by particulate observed during the passes - it is an index of sample loading. Maximum coverages of >50% could have significant negative bias, as debris stacks on top of spores. Percent coverages >75% will have significant negative bias. Maximum coverages >95% are not countable.

The quality assurance program for mold spore counts includes the following. One lab blank per day provides a long-term track record of lab cleanliness. Each analyst holds at least a bachelor's degree in science and has attended the 5 day intensive Indoor Air Quality: Microscopy of Dust, Spores & Pollen training course or equivalent. Each day, the scope alignment is checked and documented. All analysts participate in interlab round robins. Ten percent of samples are re-counted by either the same analyst or another analyst to determine analyst precision and bias. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below.

The results are shown following this cover sheet. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the air sampled. This report may not be reproduced except in full and with the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Spore Type Ranking

Job Number: 201909037

Job #: ADE-11 Mold Inspection

See Detail Report Page (Following)

Sample Num.	Location Sampled	Count/M3		Fungal Spore Identification
		Mycelial	Total Fungal	
1-9-18	Conf. Rm-ADE-11-Control Sample	< 64	64	64 Cladosporium
2-9-18	Supervisor Miller's office, ADE-11	< 64	< 64	-
3-9-18	Common Area, Supervisor Miller's, ADE-11	< 64	77	64 Cladosporium 13 smuts/Myxomycetes
4-9-18	ADW-3, NW Office, Control	< 64	77	64 basidiospores 13 smuts/Myxomycetes
5-9-18	Outdoors - North	27	4,200	1,900 Cladosporium 1,300 basidiospores 360 ascospores 280 Alternaria 190 Penicillium/Aspergillus-like 53 Drechslera/Helminthosporium/Bipolaris 40 smuts/Myxomycetes 27 miscellaneous/unidentifiable
6-9-18	Outdoors - South	< 64	3,100	1,800 basidiospores 710 Cladosporium 320 ascospores 190 Penicillium/Aspergillus-like 67 smuts/Myxomycetes 53 Alternaria 13 miscellaneous/unidentifiable
7-9-18	Outdoors - West	53	4,800	2,000 Cladosporium 1,700 basidiospores 610 Penicillium/Aspergillus-like 260 ascospores 210 Alternaria 40 Chaetomium 27 smuts/Myxomycetes

Mold Spore Count on Zefon Air-O-Cell Filter

Client Job: ADE-11 Mold Inspection

Samples Submitted by: JIM FAAS

Cassette Type: Zefon

9/19/2019

150 W CONGRESS 3RD FLR

TUCSON, AZ

85701-0000

Office Phone: (520) 724-3078

FAX: (520) 798-1407

Job Number: 201909037

Lab Number:	2019-09037- 1	2019-09037- 2	2019-09037- 3			
Sample Date :	9/18/2019	9/18/2019	9/18/2019			
Client Number:	1-9-18	2-9-18	3-9-18			
Description:	Conf. Rm-ADE-11-Control Sample	Supervisor Miller's office, ADE-11	Common Area, Supervisor Miller's, ADE-11			
Volume (L):	75	75	75			
Condition:	acceptable	acceptable	acceptable			
Analyst:	RFV	RFV	RFV			
% Ctd @ 1000X:	20.8	20.8	20.8			
Microscope #:	9	9	9			
Genus or Type of Spore	Med Mag Counts	1000x Counts	Calc. Cts/amp.	Calc. Cnts/m3	Rep.Lim.	Calc. %
Cladosporium	0	0	< 64	64	64	-
Penicillium/Aspergillus-like	0	0	< 64	64	64	-
Basidiospore	0	0	< 64	64	64	-
Ascospore	0	0	< 64	64	64	-
Alternaria	0	0	< 64	13	13	-
Chaetomium	0	0	< 64	13	13	-
Curvularia	0	0	< 64	13	13	-
Drechslera/Heimothosporium/Bipolaris	0	0	< 64	13	13	-
Pithomyces	0	0	< 64	13	13	-
smuts/Myxomycetes	0	0	< 64	13	13	-
Stachybotrys/Memnoniella	0	0	< 64	13	13	-
Ulocladium	0	0	< 64	13	13	-
Miscellaneous or Unidentifiable	0	0	< 64	64	64	-
Total Fungal Spores	0	0	< 64	64	64	-
Mycelial Fragments	0	0	< 64	13	13	-
Pollen	1	0	< 64	13	13	-
debris rating	2	2				

Genus or Type of Spore	Med Mag Counts	1000x Counts	Calc. Cts/amp.	Calc. Cnts/m3	Rep.Lim.	Calc. %
Cladosporium	0	1	5	64	64	83.3
Penicillium/Aspergillus-like	0	0	-	< 64	64	0.0
Basidiospore	0	0	-	< 64	64	0.0
Ascospore	0	0	-	< 64	64	0.0
Alternaria	0	0	-	< 64	13	0.0
Chaetomium	0	0	-	< 64	13	0.0
Curvularia	0	0	-	< 64	13	0.0
Drechslera/Heimothosporium/Bipolaris	0	0	-	< 64	13	0.0
Pithomyces	0	0	-	< 64	13	0.0
smuts/Myxomycetes	1	1	13	13	13	16.7
Stachybotrys/Memnoniella	0	0	< 64	13	13	0.0
Ulocladium	0	0	< 64	13	13	0.0
Miscellaneous or Unidentifiable	0	0	< 64	64	64	0.0
Total Fungal Spores	1	1	6	77	64	100.0
Mycelial Fragments	0	0	< 64	13	13	-
Pollen	1	1	< 64	13	13	-
debris rating	2	2				

Note: all calculated values indicated by "calc." are rounded to five significant digits, which may produce apparent differences between a tabulated total and a calculated total. Rep. Lim. = Reporting Limit.

5025 S. 33rd Street Phoenix, Arizona 85040-2816

Phone: 602-276-6139 1-800-743-2687

FAX: 602-276-4558

Detail Report Page (see also cover page) 1 of 4

Fiberquam Analytical Services

Mold Spore Count on Zefon Air-O-Cell Filter

Client Job: ADE-11 Mold Inspection

Samples Submitted by: JIM FAAS

Cassette Type: Zefon

9/19/2019

150 W CONGRESS 3RD FLR

TUCSON, AZ

85701-0000

Office Phone:

(520) 724-3078

FAX:

(520) 798-1407

Job Number: 201909037

Lab Number:	2019-09037- 4	2019-09037- 5	2019-09037- 6			
Sample Date :	9/18/2019	9/18/2019	9/18/2019			
Client Number:	4-9-18	5-9-18	6-9-18			
Description:	ADW-3, NW Office, Control	Outdoors - North	Outdoors - South			
Volume (L):	75	75	75			
Condition:	acceptable	acceptable	acceptable			
Analyst:	RFV	RFV	RFV			
% Ctd @ 1000x:	20.8	20.8	20.8			
Microscope #:	9	9	9			
Genus or Type of Spore	Med Mag Counts	1000x Counts	Calc. Cnts/imp.	Calc. Cnts/m3	Rep.Lim.	Calc. %
Cladosporium	0	0	< 64	64	64	0.0
Penicillium/Aspergillus-like	0	0	< 64	64	64	0.0
Basidiospore	0	1	5	64	64	83.3
Ascospore	0	0	< 64	64	64	0.0
Alternaria	0	0	< 64	13	13	0.0
Chaetomium	0	0	< 64	13	13	0.0
Curvularia	0	0	< 64	13	13	0.0
Drechslera/Helminthosporium/Bipolaris	0	0	< 64	13	13	0.0
Pithomyces	0	0	< 64	13	13	0.0
smuts/Myxomycetes	1	1	13	13	13	18.7
Stachybotrys/Memnoniella	0	0	< 64	13	13	0.0
Ulocladium	0	0	< 64	13	13	0.0
Miscellaneous or Unidentifiable	0	0	< 64	64	64	0.0
Total Fungal Spores	1	1	6	77	64	100.0
Mycelial Fragments	0	0	< 64	13	13	
Pollen	0	0	< 64	13	13	
debris rating	2	2				

Genus or Type of Spore	Med Mag Counts	1000x Counts	Calc. Cnts/imp.	Calc. Cnts/m3	Rep.Lim.	Calc. %
Cladosporium	0	11	53	710	64	22.1
Penicillium/Aspergillus-like	0	3	14	190	64	5.8
Basidiospore	0	28	130	1,800	64	54.2
Ascospore	0	5	24	320	64	10.0
Alternaria	4	4	4	53	13	1.7
Chaetomium	0	0	< 64	13	13	0.0
Curvularia	0	0	< 64	13	13	0.0
Drechslera/Helminthosporium/Bipolaris	0	0	< 64	13	13	0.0
Pithomyces	0	0	< 64	13	13	0.0
smuts/Myxomycetes	5	5	5	67	13	2.1
Stachybotrys/Memnoniella	0	0	< 64	13	13	0.0
Ulocladium	0	0	< 64	13	13	0.0
Miscellaneous or Unidentifiable	0	0	< 64	64	64	0.0
Total Fungal Spores	10	47	240	3,100	64	100.0
Mycelial Fragments	0	0	< 64	13	13	
Pollen	1	1	< 64	13	13	
debris rating	2	2				

Note: all calculated values indicated by "calc." are rounded to two significant digits, which may produce apparent differences between a tabulated total and a calculated total. Rep. Lim. = Reporting Limit.

Mold Spore Count on Zefon Air-O-Cell Filter

Client Job: ADE-11 Mold Inspection

Samples Submitted by: JIM FAAS

Cassette Type: Zefon

9/19/2019

Job Number: 201909037

PIMA COUNTY FACILITIES MGMT

150 W CONGRESS 3RD FLR

TUCSON, AZ

Office Phone:

FAX:

85701-0000

(520) 724-3078

(520) 798-1407

Lab Number:	2019-09037- 7									
Sample Date:	9/18/2019									
Client Number:	7-9-18									
Description:	Outdoors - West									
Volume (L):	75									
Condition:	acceptable									
Analyst:	RFV									
% Ctd @ 1000x:	20.8									
Microscope #:	9									
R:	Yes									
Genus or Type of Spore	Med Mag Counts	1000x Counts	Calc. Cts/imp.	Calc. Cts/imp.	Rep.Lim.	Calc. %				
Cladosporium	25	26	150	2,000	64	41.7				
Penicillium/Aspergillus like	17	6	46	610	64	12.8				
Basidiospore	0	26	120	1,700	64	33.3				
Ascospore	0	4	19	260	64	5.3				
Alternaria	16	-	16	210	13	4.4				
Chaetomium	3	-	3	40	13	0.8				
Curvularia	0	-	-	< 64	13	0.0				
Drechslera/Helminthosporium/Bipolaris	0	-	-	< 64	13	0.0				
Pitheomyces	0	-	-	< 64	13	0.0				
smus/Myxomycetes	2	-	2	27	13	0.6				
Stachybotrys/Memnoniella	0	-	-	< 64	13	0.0				
Ulocladium	0	-	-	< 64	13	0.0				
	-	-	-	< 64	64	0.0				
	-	-	-	< 64	64	0.0				
	-	-	-	< 64	64	0.0				
	-	-	-	< 64	64	0.0				
	-	-	-	< 64	64	0.0				
	-	-	-	< 64	64	0.0				
Miscellaneous or Unidentifiable	0	0	-	< 64	64	0.0				
Total Fungal Spores	63	62	360	4,800	64	100.0				
Mycelial Fragments	4				53	13				
Pollen	5				67	13				
debris rating	2									

Note: all calculated values indicated by "calc." are rounded to two significant digits, which may produce apparent differences between a tabulated total and a calculated total. Rep. Lim. = Reporting Limit.

5025 S. 33rd Street Phoenix, Arizona 85040-2816

Phone: 602-276-6139 1-800-743-2687

FAX: 602-276-4558

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Fiberquant Analytical Services

Mold Spore Count on Zefon Air-O-Cell Filter

Client Job: ADE-11 Mold Inspection

Samples Submitted by: JIM FAAS

9/19/2019

Cassette Type: Zefon

Job Number: 201909037

PIMA COUNTY FACILITIES MGMT

150 W CONGRESS 3RD FLR

TUCSON, AZ

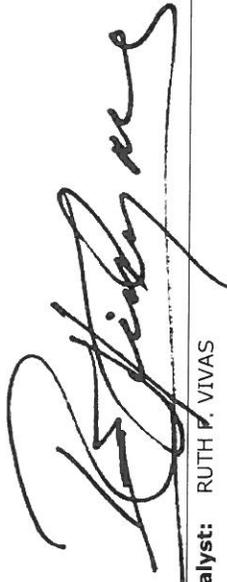
Office Phone:

FAX:

85701-0000

(520) 724-3078

(520) 798-1407



Analyst: RUTH F. VIVAS

Printed: 19-Sep-19

Original Print Date: 19-Sep-19



Larry S. Pierce, Approved Accreditation Signatory

Note: all calculated values indicated by "calc." are rounded to two significant digits, which may produce apparent differences between a tabulated total and a calculated total. Rep. Lim. = Reporting Limit.

5025 S. 33rd Street Phoenix, Arizona 85040-2816

Phone: 602-276-6139

1-800-743-2687

FAX: 602-276-4558

Detail Report Page (see also cover page) 4 of 4 *Fiberquant Analytical Services*

FIBERQUANT

ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.,
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Pima County Risk Management	
Address 130 W. Congress, 9th Floor	
City, State, Zip Code Tucson, AZ 85701	
Phone 520-724-3078	FAX 520-222-1407
Email jim.faaas@pima.gov	
Invoice to (Company) Same	
Address	
City, State, Zip Code	
Phone	FAX
Contact (print) Jim Faas	
Sampled by (signature) <i>[Signature]</i>	
Job Number or Project Name ADE-11 Mold Inspection	
PO Number	

<Analysis Method Requested> ONLY ONE METHOD per COC		Turn-around-time (choose one)			
		Urg	Norm	Ext	
Asbestos by PLM	Method > Improved <input checked="" type="checkbox"/> or <input type="checkbox"/>	<3 hrs	1-2 days	15-30 days	
	Analyte > All <input type="checkbox"/> or AITP <input type="checkbox"/>				
	If AITP then > by Layer <input type="checkbox"/> or by Sample <input type="checkbox"/>				
	Single Layer Protocol > Yes <input type="checkbox"/> or No <input type="checkbox"/>				
Fibers by PCM	Method > 7400(Area) <input type="checkbox"/> ORM (Personal) <input type="checkbox"/>	<4 hr	24hr		
Asbestos by TEM	In Air > AHERA <input type="checkbox"/> Mod. AHERA <input type="checkbox"/>	<6hr	24 hr	3-5d	
	In Water* > Water <input type="checkbox"/> Sludge <input type="checkbox"/>	1-2d	3-5d	N/A	
	In Bulk (Annex2) > Chatfield <input type="checkbox"/> Full Quant <input type="checkbox"/>				
	In Dust > Vacuum Dust (ASTM D-5755) <input type="checkbox"/>	3-5d	5-10d	N/A	
Pb by FLAA	Analyte > Pb <input type="checkbox"/> Other <input type="checkbox"/>	<6 hrs	2-3 days	N/A	
	Filter > MCE <input type="checkbox"/>				
	Matrix >	Paint > by Area (mg/cm2) <input type="checkbox"/>			
		by Weight (ppm) <input type="checkbox"/>			
	Soil > <input type="checkbox"/>				
	Wipe > <input type="checkbox"/>				
Check here certifying wipes used are ASTM E1792 compliant <input type="checkbox"/>					
Fungi	Air Sample > Zef <input checked="" type="checkbox"/> Aller <input type="checkbox"/> Oth <input type="checkbox"/>	<6 hrs	1-2 days	N/A	
	Bulk > Sample <input type="checkbox"/> Swab <input type="checkbox"/>				
	Tape Lift > Qualitative (%& type) <input checked="" type="checkbox"/> or Quantitative (type/cm2) <input type="checkbox"/>				
Soot	ASTM D6602-03B	<6 hrs	1-2 days	N/A	
	Optical & TEM	1-2 days	3-5days	N/A	
Other		Call	Call		

Sample # (1 per line)	Description/Location	Sample Date	Sample Time	Vol. or Area
1) 1-9-18	Conf. Room - ADE-11-control sample	9/18/19		75 liter
2) 2-9-18	Supervisor Miller's office, ADE-11			
3) 3-9-18	Common area, Supervisor Miller's, ADE-11			
4) 4-9-18	ADW-3, NW office control			
5) 5-9-18	Outdoors - North			
6) 6-9-18	Outdoors - South			
7) 7-9-18	Outdoors - West			
8)				
9) S-1	Tape lift, composite window sills, office	9/18/19		—
10) S-2	Tape lift, carpet behind sofa, office			—
11) S-3	Tape lift, upper shelf, duty area, common			—
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				

1) Relinquished by: <i>[Signature]</i>	Date: 9/18/19	Time: 4:00 PM	3) Relinquished by:	Date:	Time:
2) Received by: <i>[Signature]</i>	Date: 9-19-19	Time: 10:12	4) Received by:	Date:	Time:
* TEM Wiper: Sampler's name Required by State of Arizona		Print Name	Fiberquant assigned Job Number >	201909037	
Review of Analysis Request (Initials): <i>[Signature]</i>			Page of		

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.



Mold Spore Identification of Bulk Samples

JobNumber: 201909038

Client: PIMA COUNTY FACILITIES MGMT

150 W CONGRESS 3RD FLR

TUCSON, AZ 85701-0000

Office Phone: (520) 724-3078

FAX: (520) 798-1407

Samples: 3 MYC **Rec:** 9/19/2019 **Method:** Bulk Mold Identification SOP SPB Identification of mold from bulk sample

Client Job: ADE-11 Mold Inspection

PO Number: MA 18*303

Report Date: 9/19/2019

Date Analyzed: 9/19/2019

Routing Number: -

Method and Analysis Information: Fiberquant Internal SOP: SPB

Each incoming sample (tape, material sample or swab, etc.) is removed under a Biosafety Level II hood from its container or sample bag. A sub-sample (or sub-samples) of mold is taken either using a piece of double sticky tape, or cut from the original material itself. The glass slide containing the sub-sample is marked with the unique lab number of the sample. A small amount of liquid is placed on the sample to exclude bubbles; the liquid may be stain, lactic acid, immersion oil or other liquid, depending on the sample. A cover slip is then placed on top to complete the preparation. The mounted sample is scanned at 400- 1000x magnification using a Nikon Labphot optical microscope. Morphology, color and size are used to identify the type or genus of the molds present. For some molds, species or even genus cannot be unambiguously determined without culturing, so results are given as mold type percentages. The mold type percentages are normalized to total mold particles. The total of the mold percentages will therefore be 100. In addition, the percentage of particles that are mold is estimated, and reported as "% Mold/Total Particles".

Our quality assurance program for mold spore identification includes the following: One lab blank per day is prepared to track lab contamination. Each analyst holds at least a bachelor's degree in science and has attended a 5 day intensive Indoor Air Quality Microscopy of Dust, Spores and Pollen training course, or equivalent. Each day, the microscope alignment is checked and documented. All analysts participate in interlab round robins and proficiency testing. Ten percent of samples are re-analyzed by a different analyst to determine precision. Reference samples are analyzed weekly. Precision on bulk mold type percentages can be expected to be approximately +/- 10%. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below.

The results follow this cover sheet, both as a summary and in detail on the "Detail Report Page". Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Job Number: 201909038

Mold Spore Identification of Bulk Samples

Client Job: ADE-11 Mold Inspection

Samples Submitted by: JIM FAAS

9/19/2019

Lab Number	2019-09038- 1	2019-09038- 2	2019-09038- 3
Sample Date	9/18/2019	9/18/2019	9/18/2019
Client Number	S-1	S-2	S-3
Description	Tape Lift, Composite Win	Tape Lift, Carpet behind S	Tape Lift, Upper Shelf, Du
Condition as Rec'd	acceptable	acceptable	acceptable
Analyst	RFV	RFV	RFV
Genus or Type of Spore	%	%	%
Cladosporium	n.d.	n.d.	n.d.
Penicillium/Aspergillus	n.d.	n.d.	n.d.
Basidiospore	n.d.	n.d.	n.d.
Alternaria	n.d.	n.d.	n.d.
Drechslera/Helminth./Bipolaris	n.d.	n.d.	n.d.
Stachybotrys	n.d.	n.d.	n.d.
Chaetomium	n.d.	n.d.	n.d.
Ascospore	n.d.	n.d.	n.d.
Pithomyces/Ulocladium	n.d.	n.d.	n.d.
Ustilago (smuts)	n.d.	n.d.	n.d.
Uredinales (rusts)	n.d.	n.d.	n.d.
	n.d.	n.d.	n.d.
Miscellaneous or Unidentifiable	n.d.	n.d.	n.d.
Mycelial Fragments	n.d.	n.d.	n.d.
Total	0	0	0
% Fungus/Total Particles	n.d.	n.d.	n.d.

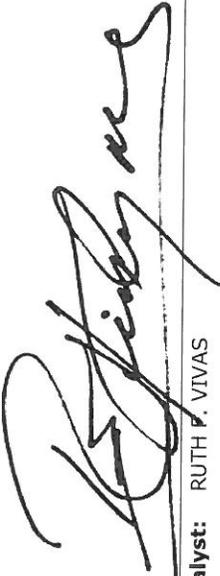
"n.d." = not detected; "tr." = trace

Mold Spore Identification of Bulk Samples

Job Number: 201909038

Client Job: ADE-11 Mold Inspection

Samples Submitted by: JIM FAAS 9/19/2019



Analyst: RUTH F. VIVAS

Printed: 19-Sep-19

Original Print Date: 19-Sep-19



Larry S. Pierce, Approved Accreditation Signatory

"n.d." = not detected; "tr." = trace

FIBERQUANT

ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Pima County Risk Management	
Address 130 W. Congress, 9th Floor	
City, State, Zip Code Tucson, AZ 85701	
Phone 520-724-3078	FAX 520-222-1407
Email jim.faas@pima.gov	
Invoice to (Company) Same	
Address	
City, State, Zip Code	
Phone	FAX
Contact (print) Jim Faas	
Sampled by (signature) <i>[Signature]</i>	
Job Number or Project Name ADE-11 Mold Inspection	
PO Number	

<Analysis Method Requested> ONLY ONE METHOD PER ANALYTE		Turn-around-time (choose one)			
		Rush	Norm	Ext	
Asbestos by PLM	Method > Improved <input type="checkbox"/> or Interim <input type="checkbox"/>	Urg. Rush <3 hrs <input type="checkbox"/>	<6 hrs <input type="checkbox"/>	1-3 days <input type="checkbox"/>	
	Analyze > All <input type="checkbox"/> or ATPF <input type="checkbox"/>			15-30 days <input type="checkbox"/>	
	If ATPF then > by Layer <input type="checkbox"/> or by Sample <input type="checkbox"/>				
Single Layer Protocol > Yes <input type="checkbox"/> or No <input type="checkbox"/>					
Fibers by PCM	Method > 7400(Area) <input type="checkbox"/> ORM (Personal) <input type="checkbox"/>	<4 hr <input type="checkbox"/>	24hr <input type="checkbox"/>		
Asbestos by TEM	in Air > AHERA <input type="checkbox"/> Mod. AHERA <input type="checkbox"/>	<6hr <input type="checkbox"/>	24 hr <input type="checkbox"/>	3-5d <input type="checkbox"/>	
	in Water > Water <input type="checkbox"/> Sludge <input type="checkbox"/>	1-2d <input type="checkbox"/>	3-5d <input type="checkbox"/>	N/A <input type="checkbox"/>	
	in Bulk (Annex2) > Chatfield <input type="checkbox"/> Full Quant <input type="checkbox"/>				
	in Dust > Vacuum Dust (ASTM D-5755) <input type="checkbox"/>	3-5d <input type="checkbox"/>	5-10d <input type="checkbox"/>	N/A <input type="checkbox"/>	
Pb by FLAA	Analyte > Pb <input type="checkbox"/> Other <input type="checkbox"/>	<6 hrs <input type="checkbox"/>	2-3 days <input type="checkbox"/>	N/A <input type="checkbox"/>	
	Filter > MCE <input type="checkbox"/>				
	Matrix >	Paint > by Area (mg/cm2) <input type="checkbox"/>			
		by Weight (ppm) <input type="checkbox"/>			
	Soil > <input type="checkbox"/>				
Wipe > <input type="checkbox"/>					
Check here certifying wipes used are ASTM E1792 compliant <input type="checkbox"/>					
Fungi	Air Sample > Zef <input checked="" type="checkbox"/> Aller <input type="checkbox"/> Oth <input type="checkbox"/>	6 hrs <input checked="" type="checkbox"/>	1-2 days <input type="checkbox"/>	N/A <input type="checkbox"/>	
	Bulk > Sample <input type="checkbox"/> Swab <input type="checkbox"/>				
	Tape Lift > * Qualitative (% & type) <input type="checkbox"/> or Quantitative (type/cm2) <input type="checkbox"/>				
Soot	ASTM D6602-03B	Optical <input type="checkbox"/>	<6 hrs <input type="checkbox"/>	1-2 days <input type="checkbox"/>	
		Optical & TEM <input type="checkbox"/>	1-2 days <input type="checkbox"/>	3-5days <input type="checkbox"/>	
Other		Call	Call		

Sample # (1 per line)	Description/Location	Sample Date	Sample Time	Vol. or Area
1) 1-9-18	Conf. Room - ADE-11 - control sample	9/18/19		75 liter
2) 2-9-18	Supervisor Miller's office, ADE-11	↓		↓
3) 3-9-18	Common area, Supervisor Miller's, ADE-11	↓		↓
4) 4-9-18	ADW-3, NW office control	↓		↓
5) 5-9-18	Outdoors - North	↓		↓
6) 6-9-18	Outdoors - South	↓		↓
7) 7-9-18	Outdoors - West	↓		↓
8)				
9) S-1	Tape lift, composite window sills, office	9/18/19		—
10) S-2	Tape lift, carpet behind sofa, office	↓		—
11) S-3	Tape lift, upper shelf, duty area, common	↓		—
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				

1) Relinquished by: <i>[Signature]</i>	Date: 9/18/19	Time: 4:00 PM	3) Relinquished by:	Date:	Time:
2) Received by: <i>[Signature]</i>	Date: 9/19/19	Time: 10:12	4) Received by:	Date:	Time:
* TEM Water, Sampler's name Required by State of Arizona		Print Name	Fiberquant assigned Job Number >	201904038	
Review of Analysis Request (Initials): <i>[Signature]</i>			Page of		

Note: Data completed by client (Including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.