KARINS
ENGINEERING
GROUP, INC.

2017 Fiesta Drive
Sarasota, Florida 34231
Toll Free: (866) 927-8525
Tel: (941) 927-8525
Fax: (941) 927-8075
dk@keg-engineering.com

February 18, 2011

John Fernandez
Town of Longboat Key
610 General Harris
Longboat Key, FL 34228

RE: Colony Beach and Tennis Club
KEG File # 10RS-0362
Beach Units 1, 2 and 3 (Rev.01)

Dear Mr. Fernandez:

Karins Engineering Group, Inc. (KEG) has reviewed the February 4, 2011 inspection letter provided to Jay Yablon of the Colony Beach and Tennis Club Association (CBT) by The Town of Longboat Key Building Department (TLK) regarding Beach Units 1, 2 and 3 at CBT and completed on onsite observations of the aforementioned units.

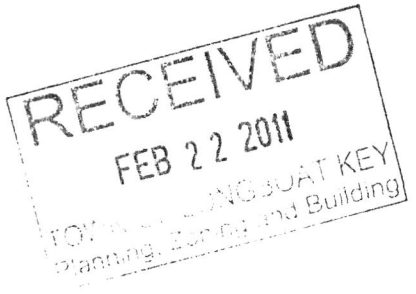
KEG has been retained by CBT to assist them in addressing these items so that the units may be immediately occupied.

- To address the electrical and plumbing issues cited by the inspection letter, KEG has contacted licensed electrical and plumbing contractors to propose appropriate repairs. Once a licensed contractor is selected by CBT, KEG will work with the contractor and TLK to provide necessary documentation for any required building permits.
- Regarding the spalling concrete at the Beach Units (B-1, B-2, B-3), It is the opinion of KEG that the concrete spalling observed in the structure does not endanger the stability of the building and/or the safety of its occupants. Though the damage is significant and should be repaired without extended delay, corrosion of reinforcing steel is relatively slow to progress and is being monitored by KEG. Further, these repairs may be accomplished while the units are occupied without endangering the occupants, given exercise of due care. Because a larger scale project that includes this work is currently in the planning phase, CBT requests that they be allowed to direct their limited presently-available-resources to those items which are more urgent.

Thank you for your ongoing support and assistance with this complex project. We continue to appreciate both your commitment to the public safety and welfare, and your sensitivity to the unit owners. We trust this information is helpful, should questions arise, please do not hesitate to call.

Sincerely,
Karins Engineering Group, Inc.

David G. Karins, P.E.
President
Florida Registration # 52677



From: Linda Cavalieri
Sent: Friday, February 18, 2011 5:21 PM
To: 'jfernandez@longboatkey.org'
Subject: Karins Engineering Group - The Colony Beach and Tennis Club Beach Units 1, 2, 3
Attachments: KEG-ENGR_Scans7832_000.pdf

Mr. Fernandez,

Attached please find a letter from David Karins, PE, Karins Engineering Group, Inc. pertaining to The Colony Beach and Tennis Club Beach Units 1, 2 and 3.

Sincerely,

LINDA M. CAVALIERI
Business Development
KARINS ENGINEERING GROUP, INC.
Structural Engineers and Restoration Consulting
St. Petersburg, Sarasota, Ft. Lauderdale, Naples/Ft. Myers
Headquarters: 2017 Fiesta Dr., Sarasota FL 34231
(866) 927-8525 toll free, ext. 303
(941) 927-8525 ext. 303
(941) 724-1909 mobile
(941) 927-8075 facsimile
lc@keg-engineering.com
www.KEG-Engineering.com

> David K. Cell
724-3283

BOAF

September 18, 2012
EAC Project No.: 12-1610

Pierce Contracting, Inc.
Mr. Mark Pierce
445 N. Orange Avenue #400
Sarasota, Florida 34236

RE: MOLD SCREENING - Residential Condominium Structure - 1620 Gulf of Mexico Drive - Longboat Key - Sarasota County - Florida

Dear Mr. Pierce:

Environmental Assessments + Consulting (EAC), has completed mold screening activities for the residential structure mentioned above.

This report will present the scope of work requested by the client, the sampling procedures, and the results of the laboratory analysis of the suspected areas of mold growth. No warranty is provided with this report, expressed or implied. This report was prepared for the exclusive use of Pierce Contracting, Inc. This report is the property of Environmental Assessments + Consulting. The unauthorized use of this report by third parties will be at the user's own risk.

Should you have any questions regarding this report, please feel free to call us at (941) 378-8844.

Respectfully submitted,
Environmental Assessments + Consulting

Chris J. Fraser
Licenced Mold Assessor

MOLD SCREENING

OF

Residential Condominium Property
1620 Gulf of Mexico Drive
Longboat Key
Sarasota County, Florida

Prepared for:

Pierce Contracting, Inc.
Sarasota, Florida

EAC Project Number: 12-1610

Prepared by:

Environmental Assessments & Consulting
1882 Porter Lake Drive #105
Sarasota, Florida 34240-7808

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1.0 INTRODUCTION

EAC was contacted by Mark Pierce with Pierce Contracting, Inc., to perform a mold screening of the residential condominium structure located at 1620 Gulf of Mexico Drive, Units 500, 501 & 502, Longboat Key, Sarasota County, Florida.

The purpose of this mold screening was to identify mold like substances that may pose a high financial liability or personal health risk to the owner or occupants of the residence / structure. This sampling event was conducted within the on-site structure and was comprised of nine (9) ambient air samples (seven (7) indoor and two (2) outdoor). Specifically, the indoor air samples were collected in the living room (502), office (501), master bedroom (500), dining room (500), living room (500), the elevator and the main lobby. The outdoor air samples were collected on the terrace on the second floor and the grassy area near the front entrance. Due to client requests, surface samples were collected within the facility as well. Swap samples were collected from an antique Shakespeare book and an equestrian oil painting. Tape samples were collected from clothing inside "his" closet, "her" closet and a closet off the guest bedroom.

Air samples were collected to determine the amount(s) and type(s) of fungal components present in the indoor sampling location compared to those found outdoors. The sample(s) collected represent the conditions present at the time the samples were taken. In general, the levels and types of fungi found should be similar indoors as compared to the outdoor air. Differences in the levels or types of fungi found in air samples may indicate that moisture sources and resultant fungal growth may be problematic.

Swab / surface samples were collected to determine the type(s) and approximate amount of fungal components present at the sampling location(s). The sample(s) analyses represent the conditions present at the time of collection. The sampling conducted in these tests does not verify whether the mold(s) identified are alive or capable of causing disease. However, determining the type of mold(s) present is important when deciding if a potential for risk to human health is present. It should be noted that significant surface mold growth in an occupied area may pose a significant health risk and should be removed in most cases.

It is estimated that there are between 50,000 and 250,000 species of fungi, and fewer than 200 have been described as human pathogens that can cause infections. Molds are ubiquitous in nature and grow almost everywhere indoors and outdoors. More than 1,000 different kinds indoor

molds have been found in U.S. homes. Molds spread and reproduce by making spores, which are very small and lightweight, able to travel through air, capable of resisting dry, adverse environmental conditions, and hence capable of surviving a long time. Molds need moisture and food to grow, and their growth is stimulated by warm, damp, and humid conditions.

2.0 FACILITY DESCRIPTION

The subject facility is located at 1620 Gulf of Mexico Drive, Longboat Key, Sarasota County, Florida. According to the Sarasota County Property Appraiser records, the residential units are a combined 8,668 square feet in plan dimension size and were constructed in 1973. The building's lobby is approximately 1,000 square feet. The structural framework consists of wood and/or steel studs in load bearing walls. Other external structural details are not listed on the County Appraiser web site. Interior partitions are gypsum drywall. Ceilings consist of gypsum drywall. Flooring consists of wood floors, ceramic tile and carpet . The HVAC system consists of centrally located units with fiberglass or metal ductwork. The facility is currently occupied.

ANALYSIS SUMMARY

No.	Material Description	Mold Species	Notes:
1	Indoor Air Sample #1 (Aerocell #1) - Living Room (Unit #502)	Chaetomium, Cladosporium, Curvularia, Basidiospores, Penicillium / Aspergillus, Smuts/Myxomycetes & Spegazzinia	
2	Outdoor Air Sample #1 (Aerocell #2) - Balcony	Alternaria, Bipolaris/Drechslera, Cercospora, Cladosporium, Curvularia, Fusarium, Ganoderma, Melanographium, Nigrospora, Ascospores, Basidiospores, Penicillium/Aspergillus, Pyricularia, Rusts & Smuts/Myxomycetes.	
3	Indoor Air Sample #2 (Aerocell #3) Office (Unit #501)	Blakeslea trispora, Cladosporium, Curvularia, Ascospores, Basidiospores, Penicillium/Aspergillus & Smuts/Myxomycetes.	
4	Indoor Air Sample #3 (Aerocell #4) Master bedroom / Den (Unit #500)	Curvularia	
5	Indoor Air Sample #4 (Aerocell #5) Dining room (Unit #500)	Basidiospores & Smuts/Myxomycetes.	
6	Indoor Air Sample #5 (Aerocell #6) Living room (Unit #500)	Cladosporium, Ganoderma, Basidiospores & Penicillium/Aspergillus	
7	Indoor Air Sample #6 (Aerocell #7) Elevator	Cladosporium, Curvularia, Ascospores, Basidiospores & **Penicillium/Aspergillus**	**Elevated Levels**
8	Indoor Air Sample #7 (Aerocell #8) Main Lobby	Basidiospores & **Penicillium/Aspergillus**	**Elevated Levels**
9	Outdoor Air Sample #2 (Aerocell #9) Grassy area near front entrance	Cladosporium, Curvularia, Nigrospora, Ascospores, Basidiospore, Penicillium / Aspergillus, Pithomyces, Smuts/Myxomycetes & Spegazzinia.	
T-1	Swab - Horse Painting	None	
T-2	Tape - "Her" Closet	Coelomycetes	
T-3	Tape - "His" Closet	None	
T-4	Swab - Shakespeare Book	Aspergillus, Hyphae	
T-5	Tape - Closet Off Guest Bathroom	Alternaria, Smuts / Myxomycetes	

APPENDIX II

LABORATORY RESULTS & CHAIN-OF-CUSTODY FORMS

PRO-LAB

1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

ENVIRONMENTAL ASSESSMENTS
1882 PORTER LAKE DR
SARASOTA, FL 34240-7808

Certificate of Mold Analysis

Prepared for:	ENVIRONMENTAL ASSESSMENTS
Phone Number:	(941) 378-8844
Fax Number:	(941) 378-9966
Project Name:	KLAUBER-RESIDENTIAL
Test Location:	1620 GULF OF MEXICO DR LONGBOAT KEY, FL 34228
Chain of Custody #:	607844
Received Date:	September 17, 2012
Report Date:	September 17, 2012

John D. Shane Ph.D., Technical Manager

Currently there are no Federal regulations for evaluating potential health effects of fungal contamination and remediation. This information is subject to change as more information regarding fungal contaminants becomes available. For more information visit http://www.epa.gov/mold or www.nyc.gov/html/doh/html/epi/mold.shtml. This document was designed to follow currently known industry guidelines for the interpretation of microbial sampling, analysis, and remediation. Since interpretation of mold analysis reports is a scientific work in progress, it may as such be changed at any time without notice. The client is solely responsible for the use or interpretation. PRO-LAB/SSPTM Inc. makes no express or implied warranties as to health of a property from only the samples sent to their laboratory for analysis. The Client is hereby notified that due to the subjective nature of fungal analysis and the mold growth process, laboratory samples can and do change over time relative to the originally sampled material. PRO-LAB/SSPTM Inc. reserves the right to properly dispose of all samples after the testing of such samples are sufficiently completed or after a 7 day period, whichever is greater.

AIHA LAP, LLC
ACCREDITED LABORATORY
ENVIRONMENTAL MICROBIOLOGY
ISO/IEC 17025:2005
LAB # 161330

For more information please contact PRO-LAB at (954) 384-4446 or email info@prolabinc.com

PRO-LAB

1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Prepared for : ENVIRONMENTAL ASSESSMENTS

Test Address : KLAUBER-RESIDENTIAL
1620 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ANALYSIS METHOD	Spore trap analysis			Spore trap analysis			Spore trap analysis			Spore trap analysis		
LOCATION	Living Room #502			Outdoor Balcony Office			Office			Master Bedroom /den 500		
COC / LINE #	607844-1			607844-2			607844-3			607844-4		
SAMPLE TYPE & VOLUME	AIR-O-CELL - 150L			AIR-O-CELL - 150L			AIR-O-CELL - 150L			AIR-O-CELL - 150L		
SERIAL NUMBER	18378472			18378491			18378507			18378457		
COLLECTION DATE	Sep 13, 2012			Sep 13, 2012			Sep 13, 2012			Sep 13, 2012		
ANALYSIS DATE	Sep 17, 2012			Sep 17, 2012			Sep 17, 2012			Sep 17, 2012		
IDENTIFICATION	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total
Alternaria				4	27	2						
Aspergillus												
Bipolaris/Drechslera				4	27	2						
Blakeslea trispora							4	27	7			
Cercospora				8	53	3						
Chaetomium	4	27	8									
Cladosporium	4	27	8	16	110	7	16	110	27			
Coelomycetes												
Curvularia	4	27	8	8	53	3	8	53	13	4	27	100
Fusarium				4	27	2						
Ganoderma				8	53	3						
Hyphae												
Melanographium				4	27	2						
Nigrospora				4	27	2						
Other Ascospores				40	270	16	8	53	13			
Other Basidiospores	4	27	8	116	770	46	12	80	20			
Penicillium/Aspergillus	24	160	50	16	110	7	4	27	7			
Pithomyces												
Pyricularia				4	27	2						
Rusts				4	27	2						
Smuts, myxomycetes	4	27	8	12	80	5	8	53	13			
Spegazzinia	4	27	8									
Unidentified Spores												
TOTAL SPORES	48	322	100	252	1,688	100	60	403	100	4	27	100
MINIMUM DETECTION LIMIT*	1	27		1	27		1	27		1	27	
BACKGROUND DEBRIS	Moderate			Light			Moderate			Moderate		
Cellulose Fiber	44	290		12	80		32	210		24	160	
Insect Fragments												
Plant Fragments	4	27										
Pollen	4	27								4	27	
OBSERVATIONS & COMMENTS												

Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Increasing amounts of debris will obscure small spores and can prevent spores from impacting onto the slide. The actual number of spores present in the sample is likely higher than reported if the debris estimate is 'Heavy' or 'Too Heavy for Accurate Count'. All calculations are rounded to two significant figures and therefore, the total percentage of spore numbers may not equal 100%.
Minimum Detection Limit. Based on the volume of air sampled, this is the lowest number of spores that can be detected and is an estimate of the lowest concentration of spores that can be read in the sample. **NA** = Not Applicable.

Spores that were observed from the samples submitted are listed on this report. If a spore is not listed on this report it was not observed in the samples submitted.

Interpretation Guidelines: A determination is added to the report to help users interpret the mold analysis results. A mold report is only one aspect of an indoor air quality investigation. The most important aspect of mold growth in a living space is the availability of water. Without a source of water, mold generally will not become a problem in buildings. These determinations are in no way meant to imply any health outcomes or financial decisions based solely on this report. For questions relating to medical conditions you should consult an occupational or environmental health physician or professional.
CONTROL is a baseline sample showing what the spore count and diversity is at the time of sampling. The control sample(s) is usually collected outside of the structure being tested and used to determine if this sample(s) is similar in diversity and abundance to the inside sample(s).
ELEVATED means that the amount and/or diversity of spores, as compared to the control sample(s), and other samples in our database, are higher than expected. This can indicate that fungi have grown because of a water leak or water intrusion. Fungi that are considered to be indicators of water damage include, but are not limited to: *Chaetomium, Fusarium, Memnoniella, Stachybotrys, Ulocladium.*
NOT ELEVATED means that the amount and/or the diversity of spores, as compared to the control sample and other samples in our database, are lower than expected and may indicate no problematic fungal growth.
UNUSUAL means that the presence of current or former growth was observed in the analyzed sample. An abundance of spores are present, and/or growth structures including hyphae and/or fruiting bodies are present and associated with one or more of the types of mold/fungi identified in the analyzed sample.
NORMAL means that no presence of current or former growth was observed in the analyzed sample. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.

PRO-LAB

1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Prepared for : ENVIRONMENTAL ASSESSMENTS

Test Address : KLAUBER-RESIDENTIAL
1620 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ANALYSIS METHOD	Spore trap analysis			Spore trap analysis			Spore trap analysis			Spore trap analysis		
LOCATION	Dining Room 500			Living Room 500			Elevator			Lobby Ground Floor		
COC / LINE #	607844-5			607844-6			607844-7			607844-8		
SAMPLE TYPE & VOLUME	AIR-O-CELL - 150L			AIR-O-CELL - 150L			AIR-O-CELL - 150L			AIR-O-CELL - 150L		
SERIAL NUMBER	18193721			18378493			18378463			18378419		
COLLECTION DATE	Sep 13, 2012			Sep 13, 2012			Sep 13, 2012			Sep 13, 2012		
ANALYSIS DATE	Sep 17, 2012			Sep 17, 2012			Sep 17, 2012			Sep 17, 2012		
IDENTIFICATION	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total
Alternaria												
Aspergillus												
Bipolaris/Drechslera												
Blakeslea trispora												
Cercospora												
Chaetomium												
Cladosporium				16	110	31	4	27	<1			
Coelomycetes												
Curvularia							4	27	<1			
Fusarium												
Ganoderma				4	27	8						
Hyphae												
Melanographium												
Nigrospora												
Other Ascospores							4	27	<1			
Other Basidiospores	4	27	50	4	27	8	8	53	1	12	80	<1
Penicillium/Aspergillus				28	190	54	1,488	9,900	99	7,600	51,000	100
Pithomyces												
Pyricularia												
Rusts												
Smuts, myxomycetes	4	27	50									
Spegazzinia												
Unidentified Spores												
TOTAL SPORES	8	54	100	52	354	100	1,508	10,034	100	7,612	51,080	100
MINIMUM DETECTION LIMIT	1	27		1	27		1	27		1	27	
BACKGROUND DEBRIS	Moderate			Moderate			Moderate			Moderate		
Cellulose Fiber	28	190		32	210		20	130		20	130	
Insect Fragments	4	27					8	53				
Plant Fragments	4	27										
Pollen	4	27								4	27	
OBSERVATIONS & COMMENTS										Penicillium/Aspergillus spores too numerous to count. Number is estimated.		

Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Increasing amounts of debris will obscure small spores and can prevent spores from impacting onto the slide. The actual number of spores present in the sample is likely higher than reported if the debris estimate is 'Heavy' or 'Too Heavy for Accurate Count'. All calculations are rounded to two significant figures and therefore, the total percentage of spore numbers may not equal 100%.
Minimum Detection Limit. Based on the volume of air sampled, this is the lowest number of spores that can be detected and is an estimate of the lowest concentration of spores that can be read in the sample. **NA** = Not Applicable.

Spores that were observed from the samples submitted are listed on this report. If a spore is not listed on this report it was not observed in the samples submitted.

Interpretation Guidelines: A determination is added to the report to help users interpret the mold analysis results. A mold report is only one aspect of an indoor air quality investigation. The most important aspect of mold growth in a living space is the availability of water. Without a source of water, mold generally will not become a problem in buildings. These determinations are in no way meant to imply any health outcomes or financial decisions based solely on this report. For questions relating to medical conditions you should consult an occupational or environmental health physician or professional.
CONTROL is a baseline sample showing what the spore count and diversity is at the time of sampling. The control sample(s) is usually collected outside of the structure being tested and used to determine if this sample(s) is similar in diversity and abundance to the inside sample(s).
ELEVATED means that the amount and/or diversity of spores, as compared to the control sample(s), and other samples in our database, are higher than expected. This can indicate that fungi have grown because of a water leak or water intrusion. Fungi that are considered to be indicators of water damage include, but are not limited to: *Chaetomium, Fusarium, Memnoniella, Stachybotrys, Ulocladium.*
NOT ELEVATED means that the amount and/or the diversity of spores, as compared to the control sample and other samples in our database, are lower than expected and may indicate no problematic fungal growth.
UNUSUAL means that the presence of current or former growth was observed in the analyzed sample. An abundance of spores are present, and/or growth structures including hyphae and/or fruiting bodies are present and associated with one or more of the types of mold/fungi identified in the analyzed sample.
NORMAL means that no presence of current or former growth was observed in the analyzed sample. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.

PRO-LAB

1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Prepared for : ENVIRONMENTAL ASSESSMENTS

Test Address : KLAUBER-RESIDENTIAL
1620 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ANALYSIS METHOD	Spore trap analysis			Direct Microscopic Exam			Direct Microscopic Exam			Direct Microscopic Exam		
LOCATION	Outdoor Main Entry			Horse Painting			Her Closet			His Closet		
COC / LINE #	607844-9			607844-10			607844-11			607844-12		
SAMPLE TYPE & VOLUME	AIR-O-CELL - 150L			SWAB			TAPE			TAPE		
SERIAL NUMBER	18378489			T-1			T-2			T-3		
COLLECTION DATE	Sep 13, 2012			Sep 13, 2012			Sep 13, 2012			Sep 13, 2012		
ANALYSIS DATE	Sep 17, 2012			Sep 17, 2012			Sep 17, 2012			Sep 17, 2012		
IDENTIFICATION	Raw Count	Spores per m^3	Percent of Total		Mold Present			Mold Present			Mold Present	
Alternaria												
Aspergillus												
Bipolaris/Drechslera												
Blakeslee trispora												
Cercospora												
Chaetomium												
Cladosporium	4	27	2									
Coelomycetes								X				
Curvularia	4	27	2									
Fusarium												
Ganoderma												
Hyphae												
Melanographium												
Nigrospora	4	27	2									
Other Ascospores	32	210	15									
Other Basidiospores	132	880	62									
Penicillium/Aspergillus	8	53	4									
Pithomyces	8	53	4									
Pyricularia												
Rusts												
Smuts, myxomycetes	12	80	6									
Spegazzinia	4	27	2									
Unidentified Spores	4	27	2									
TOTAL SPORES	212	1,411	100		NA			NA			NA	
MINIMUM DETECTION LIMIT*	1	27			NA			NA			NA	
BACKGROUND DEBRIS	Light			Not Applicable			Not Applicable			Not Applicable		
Cellulose Fiber	8	53										
Insect Fragments	4	27										
Plant Fragments												
Pollen	4	27										
OBSERVATIONS & COMMENTS				No Fungi Detected.			No presence of current or former growth observed. Only normally settled spores observed.			No Fungi Detected.		

Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Increasing amounts of debris will obscure small spores and can prevent spores from impacting onto the slide. The actual number of spores present in the sample is likely higher than reported if the debris estimate is 'Heavy' or 'Too Heavy for Accurate Count'. All calculations are rounded to two significant figures and therefore, the total percentage of spore numbers may not equal 100%.

*Minimum Detection Limit. Based on the volume of air sampled, this is the lowest number of spores that can be detected and is an estimate of the lowest concentration of spores that can be read in the sample. NA = Not Applicable.

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NORMAL means that no presence of current or former growth was observed in the analyzed sample. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.

PRO-LAB

1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Prepared for : ENVIRONMENTAL ASSESSMENTS

Test Address : KLAUBER-RESIDENTIAL
1620 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ANALYSIS METHOD	Direct Microscopic Exam	Direct Microscopic Exam	INTENTIONALLY BLANK	INTENTIONALLY BLANK
LOCATION	Shakespeare Book	Closet Off Guest Room		
COC / LINE #	607844-13	607844-14		
SAMPLE TYPE & VOLUME	SWAB	TAPE		
SERIAL NUMBER	T-4	T-5		
COLLECTION DATE	Sep 13, 2012	Sep 13, 2012		
ANALYSIS DATE	Sep 17, 2012	Sep 17, 2012		

IDENTIFICATION	Mold Present	Mold Present	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total
Alternaria		X						
Aspergillus	X							
Bipolaris/Drechslera								
Blakeslea trispora								
Cercospora								
Chaetomium								
Cladosporium								
Coelomycetes								
Curvularia								
Fusarium								
Ganoderma								
Hyphae	X							
Melanographium								
Nigrospora								
Other Ascospores								
Other Basidiospores								
Penicillium/Aspergillus								
Pithomyces								
Pyricularia								
Rusts								
Smuts, myxomycetes		X						
Spegazzinia								
Unidentified Spores								
TOTAL SPORES	NA	NA						
MINIMUM DETECTION LIMIT*	NA	NA						
BACKGROUND DEBRIS	Not Applicable	Not Applicable						
OBSERVATIONS & COMMENTS	Presence of current or former growth observed.	No presence of current or former growth observed. Only normally settled spores observed.						

Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Increasing amounts of debris will obscure small spores and can prevent spores from impacting onto the slide. The actual number of spores present in the sample is likely higher than reported if the debris estimate is 'Heavy' or 'Too Heavy for Accurate Count'. All calculations are rounded to two significant figures and therefore, the total percentage of spore numbers may not equal 100%.
*Minimum Detection Limit. Based on the volume of air sampled, this is the lowest number of spores that can be detected and is an estimate of the lowest concentration of spores that can be read in the sample. NA = Not Applicable.

Spores that were observed from the samples submitted are listed on this report. If a spore is not listed on this report it was not observed in the samples submitted.

Interpretation Guidelines: A determination is added to the report to help users interpret the mold analysis results. A mold report is only one aspect of an indoor air quality investigation. The most important aspect of mold growth in a living space is the availability of water. Without a source of water, mold generally will not become a problem in buildings. These determinations are in no way meant to imply any health outcomes or financial decisions based solely on this report. For questions relating to medical conditions you should consult an occupational or environmental health physician or professional.
CONTROL is a baseline sample showing what the spore count and diversity is at the time of sampling. The control sample(s) is usually collected outside of the structure being tested and used to determine if this sample(s) is similar in diversity and abundance to the inside sample(s).
ELEVATED means that the amount and/or diversity of spores, as compared to the control sample(s), and other samples in our database, are higher than expected. This can indicate that fungi have grown because of a water leak or water intrusion. Fungi that are considered to be indicators of water damage include, but are not limited to: *Chaetomium, Fusarium, Memnoniella, Stachybotrys, Ulocladium.*
NOT ELEVATED means that the amount and/or the diversity of spores, as compared to the control sample and other samples in our database, are lower than expected and may indicate no problematic fungal growth.
UNUSUAL means that the presence of current or former growth was observed in the analyzed sample. An abundance of spores are present, and/or growth structures including hyphae and/or fruiting bodies are present and associated with one or more of the types of mold/fungi identified in the analyzed sample.
NORMAL means that no presence of current or former growth was observed in the analyzed sample. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.

Pathogenicity and Clinical Significance:

Spores from the Ascomycetes division found in the air are numerous and many are known to produce positive reactions in skin-prick test trials. Leptosphaeria is the most abundant ascospore during rainy weather. The role of many ascospores in respect to allergies is, as yet, unclear.

Species:	**Basidiospores**
Sample No.	**Aerocell #1; #3; #5; #6; #7 & #8**
Location:	**Living Room (502); Office (501); Dining Room (500); Living Room (500); Elevator & Main Lobby**
Sample Medium:	**Air**
Spore Count	**27; 80; 27; 27; 53 & 80 respectively**
Relative Level When Compared to the Outdoor Air Sample (770 & 880):	**Background**

Description:

These are spores that are released from common mushrooms. A wide number of organisms have been placed in this genera and identification of species is difficult.

Pathogenicity and Clinical Significance

Depending on the individual and the type of spore released numerous health effects can be present.

Species:	**Penicillium / Aspergillus**
Sample No.	**Aerocell #1; #3; #6; #7 & #8**
Location:	**Living Room (502); Office (501); Living Room (500); Elevator & Lobby**
Sample Medium:	**Air**
Spore Count	**160; 27; 190; 9,900 & 51,000 respectively**
Relative Level When Compared to the Outdoor Air Sample (110 & 53):	**Background within 500, 501 & 502, Significantly Higher in others**

Description (Penicillium):

A wide number of organisms have placed in this genera. Identification to species is difficult. Often found in aerosol samples. Commonly found in soil, food, cellulose, and grains. It is also found in paint, compost piles, carpet, wallpaper, and in interior fiberglass duct insulation. With only one exception (Penicillium marneffei, which is thermally dimorphic), the members of the genus Penicillium are filamentous fungi. Penicillium spp. are widespread.

Description (Aspergillus):

A genus of fungi containing approximately 150 recognized species, Aspergillus is a filamentous, cosmopolitan and ubiquitous fungus found in nature. It is commonly isolated from soil, plant debris, and indoor air environment. While a teleomorphic state has been described only for some of the Aspergillus spp., others are accepted to be mitosporic, without any known sexual spore production. Some species are parasitic on insects, plants and animals, including man. All of the species contained in this genus should be considered allergenic.

Pathogenicity and Clinical Significance (Penicillium):

Penicillium spp. are commonly considered as contaminants but may cause infections, particularly in immunocompromised hosts. In addition to their infectious potential, Penicillium spp. are known to produce mycotoxins. Some Penicillium spp. have telemorphs included in genera Eupenicillium, Talaromyces, Hamigera, and Trichocoma.

Penicillium spp. are occasional causes of infection in humans and the resulting disease is known generically as penicilliosis. Penicillium has been isolated from patients with keratitis, endophtalmitis, otomycosis, necrotizing esophagitis, pneumonia, endocarditis, peritonitis, and urinary tract infections. Corneal infections are usually post-traumatic. In addition, It may cause hypersensitivity pneumonitis and allergic alveolitis in susceptible individuals. It is reported to be allergenic (skin). Common cause of extrinsic asthma (immediate-type hypersensitivity: type I). Acute symptoms include edema and bronchiospasms, chronic cases may develop pulmonary emphysema.

Pathogenicity and Clinical Significance (Aspergillus):

Aspergillus spp. are well-known to play a role in three different clinical settings in man: (I) opportunistic infections; (ii) allergic states; and (iii) toxicoses. Immunosuppression is the major factor predisposing to development of opportunistic infections. These infections may present in a wide spectrum, varying from local involvement to dissemination and as a whole called aspergillosis. Among all filamentous fungi, Aspergillus is in general the most commonly isolated one in invasive infections.

Almost any organ or system in the human body may be involved. Onychomycosis, sinusitis, cerebral aspergillosis, meningitis, endocarditis, myocarditis, pulmonary aspergillosis, osteomyelitis, otomycosis, endophthalmitis, cutaneous aspergillosis, hepatosplenic aspergillosis, as well as

Aspergillus fungemia, and disseminated aspergillosis may develop. Nosocomial occurrence of aspergillosis due to catheters and other devices is also likely. Construction in hospital environments constitutes a major risk for development of aspergillosis particularly in neutropenic patients.

Aspergillus spp. may also be local colonizers in previously developed lung cavities due to tuberculosis, sarcoidosis, bronchiectasis, pneumoconiosis, ankylosing spondylitis or neoplasms, presenting as a distinct clinical entity, called aspergilloma. Aspergilloma may also occur in kidneys.

Some Aspergillus antigens are fungal allergens and may initiate allergic bronchopulmonary aspergillosis particularly in atopic host. Some Aspergillus spp. produce various mycotoxins. These mycotoxins, by chronic ingestion, have proven to possess carcinogenic potential particularly in animals. Among these mycotoxins, aflatoxin is well-known and may induce hepatocellular carcinoma. It is mostly produced by Aspergillus flavus and contaminates foodstuff, such as peanuts.

Species:	**Smuts / Myxomycetes**
Sample No.	**Aerocell #1; #3 & #5**
Location:	**Living Room (502); Office (501) & Dining Room (500)**
Sample Medium:	**Air**
Spore Count	**27; 53 & 27 respectively**
Relative Level When Compared to the Outdoor Air Sample (80 & 27):	**Background**

Description:

There are approximately 1000 recognized species of myxomycetes. Known as slime mold, these fungi were once considered to be animals due to their creeping phase. Mycologists now consider these strange organisms to belong to a class called Myxomycetes; myxa (slime) and myketes (fungi). The myxomycetes (plasmodial slime molds) are a group of fungus-like organisms usually present and sometimes abundant in terrestrial ecosystems. Myxomycete plasmodia typically occur in cool, moist, shady places such as within crevices of decaying wood, beneath the partially decayed bark of logs and stumps, and in leaf litter on the forest floor. The spores of myxomycetes are for most species apparently wind-dispersed.

Pathogenicity and Clinical Significance:

There are no infections so far reported due to *Myxomycetes* in humans or animals.

Species:	**Spegazzinia**
Sample No.	**Aerocell #1**
Location:	**Living Room (502)**
Sample Medium:	**Air**
Spore Count	**27**
Relative Level When Compared to the Outdoor Air Sample (27):	**Background**

Description:

Spegazzinia species comprise a very small proportion of the fungal biota. This genus is somewhat related to other lobed or ornamented genera such as Candelabrum. Natural habitat includes soil and many kinds of trees and plants.

Pathogenicity and Clinical Significance

There are no infections so far reported due to *Spegazzinia* in humans or animals.

DISCUSSION

According to the U.S. Environmental Protection Agency - Office of Air and Radiation, Indoor Environments Division publication titled Mold Remediation in Schools and Commercial Buildings it is stated that "Standards or Threshold Limit Values (TLV's) for airborne concentrations of mold, or mold spores, have not been set. As of December 2000, there are no EPA regulations or standards for airborne mold contaminants". However, the American Conference of Governmental Industrial Hygienists (ACGIH) has promulgated that the concentration of each species of molds should not exceed 300-500 colony-forming units per meter of air cubed (cfu/m^3) when the species is not detected outdoors. **As indicated within the indoor air samples collected no species of mold were detected in excess of this guideline within the specific units. However, Penicillium / Aspergillus was detected in excess within the common areas of the building, specifically the elevator and main lobby.**

In addition, as a general industry rule, the amount of spores detected within the indoor environment should not be double and/or a magnitude higher than the spores detected within the outdoor environment. **As indicated within the indoor air samples collected no species of mold were detected in excess of this guideline within the specific units. However, Penicillium / Aspergillus was detected in excess within the common areas of the building, specifically the elevator and main lobby.**

5.0 RECOMMENDATIONS

As referenced above, Blakeslea trispora, Chaetomium, Cladosporium, Curvularia, Ascospores, Basidiospores, Penicillium/Aspergillus, Smuts/Myxomycetes and Spegazzinia were present within the facility. However, as indicated, the concentrations of the spores were well below ACGIH Guidelines in all of the areas designated as residential. **However, excessively elevated levels of Penicillium/Aspergillus were detected in two (2) common areas, specifically, the elevator and main lobby of the building.** In addition, at the time of the mold screening, no significant visible mold was identified within the structure.

As a result of this mold screening event, it appears as though the air present within the residential portions of the structure is free of high concentrations of molds.

As a result of this mold screening event, it appears as though the air present within the common areas of the structure, specifically the elevator and main lobby, have excessively high concentrations of molds. Without conducting a intrusive assessment of the common areas it is unknown what the source of the mold contamination within the common area is attributed to.

The most common symptoms of mold exposure are runny nose, eye irritation, cough, congestion, and aggravation of asthma. Individuals with persistent health problems that appear to be related to mold or other types of air quality contaminant exposure should see their physicians for a referral to professionals who are trained in occupational / environmental medicine or related specialties and are knowledgeable about these types of exposures. Decisions about removing individuals from an affected area must be based on the results of such medical evaluation.

In addition, EAC recommends that to deter future mold growth or infestations that the relative humidity be kept below 60% and that the indoor temperature be set between 68 and 76 degrees Fahrenheit.

6.0 DISCUSSION & CLOSURE

Active mold growth in indoor environments is often problematic and may lead to adverse health effects. The presence of fungi on building materials does not necessitate that people will be exposed or exhibit health effects. In order for humans to be exposed indoors, fungal spores, filaments or metabolites must be released into the air and inhaled, physically contacted (dermal exposure) or ingested. Whether or not symptoms developed in people exposed to fungi depends on the nature / species of the fungal material (e.g. allergenic, toxic, or infectious), the amount of exposure, and the susceptibility of exposed individuals. Susceptibility varies with the genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, state of health, and concurrent exposures. **For these reasons, and because measurements of exposure are not standardized and biological markers of exposure to fungi are largely unknown, it is not possible to determine "safe" or "unsafe" levels of exposure for people in general.**

In addition, according to the Center for Disease Control and Prevention (CDC) the linkages between indoor airborne exposures to molds and other health effects, such as bleeding from the lung, or memory loss, have not yet bee scientifically substantiated. However they also state that because molds can be harmful they concur with the general recommendations of agencies such as the EPA and FEMA with their recommendation to remedy mold contamination in indoor environments to prevent negative health effects.

Due to the destructive nature of removing surfacing materials that could expose underlying mold-like substances on structural members, and concealed/hidden materials, sampling of mold-like substances not readily accessible was not performed. No warranty is made concerning past or future occurrences at the site concerning mold-like substances at the site. **The sample(s) analyses represent the conditions present at the time of collection.**

EAC or its representative has made no agreement to give legal testimony nor to appear in court or other hearings, formal or informal, as part of the PSA with the client or any party involved with the property. The client may make separate arrangements with EAC for testimony required now or in the future.

This report is the property of Environmental Assessments + Consulting. The unauthorized use of this report by third parties will be at the user's own risk.

3.0 SURVEY PROCEDURES

This mold screening was conducted on September 13, 2012. Sampling was performed by Howard Rapaport and report preparation was performed by Chris J. Fraser. Mr. Fraser has completed the America's Home Inspector / Pro-Lab course and the University of Florida TREEO course for identifying mold-like substances and sampling procedures. In addition, Mr. Fraser is certified under Florida Statute (FS) Chapter 468 as a Mold Assessor.

A total of nine (9) ambient air samples (seven (7) indoor and two (2) outdoor) were collected. Indoor Air Sample #1 (Aerocell #1) was collected in the Living room of Unit 502. Indoor Air Sample #2 (Aerocell #3) was collected in the office of Unit 501. Indoor Air Sample #3 (Aerocell #4) was collected between the Master bedroom and Den entrances of Unit 500. Indoor Air Sample #4 (Aerocell #5) was collected within the Dining room of Unit 500. Indoor Air Sample #5 (Aerocell #6) was collected within the Living room of Unit 500. Indoor Air Sample #6 (Aerocell #7) was collected within the elevator. Indoor Air Sample #7 (Aerocell #8) was collected within the Main Lobby. Outdoor Air Sample #1 (Aerocell #2) was collected outside on the terrace of Unit 502. Outdoor Air Sample #2 (Aerocell #9) was collected on the grassy area near the front entrance. A visual walkthrough was first conducted in order to determine if visible mold-like substances were present within the facility. Homogeneous areas (HA) of suspect mold-like substances were then identified to develop a scheme for obtaining representative samples. For the purposes of this report homogeneous areas are like in color, and area observed. A summary of the locations and visual observations made during the mold survey can be found in **Appendix I**.

Surface Samples were collected as well at the client's request. Swab Sample T-1 was collected on a Horse oil painting in Unit 500. Tape Sample T-2 was collected from clothing in "Her" closet in Unit 500. Tape Sample T-3 was collected from clothing in "His" closet in Unit 500. Swab Sample T-4 was collected from the cover of an antique Shakespeare book in Unit 502. Tape Sample T-5 was collected from clothing in a closet off the Guest bedroom in Unit 500.

4.0 LABORATORY ANALYSIS RESULTS

EAC forwarded the representative swab and air samples of the mold-like substances collected during this mold screening to Pro-Lab in Weston, Florida on September 13, 2012. Pro-Lab is recognized under the American Industrial Hygiene Association - Environmental Microbiology Proficiency Testing for Fungi/Mold. Samples were analyzed by Polarized Light Microscopy (PLM) and Phase Contrast Microscopy (PCM). During analysis, identification of species of mold is accomplished by a process of comparing what is seen through the microscope with known characteristics of certain mold species. This method of analysis allows the microscopist to verify the species of mold and to estimate the colony sizes. Laboratory results were returned on September 17, 2012.

Results - Swab / Surface Samples

The complete laboratory results and chain-of-custody forms have been included in **Appendix II**. The following table is a summation of the species of mold / fungi present within the surface samples.

SAMPLE #	SAMPLE LOCATION	AMOUNT OF MOLD / SPECIES
T-1	Horse painting - Unit 500	None
T-2	Her Closet - Unit 500	Minimal - normal - Coelomycetes
T-3	His Closet - Unit 500	None
T-4	Shakespeare book - Unit 502	Some current or former growth - Aspergillus, Hyphae
T-5	Guest bedroom closet - Unit 500	Minimal - normal - Alternaria, Smuts

Results - Ambient Air - Indoor

The complete laboratory results and chain-of-custody forms have been included in **Appendix II**. The following table is a summation of the species of mold / fungi present within the indoor and outdoor air sample. This allows for a comparative analysis of the molds present within the facility and within the ambient outdoor air:

MOLD / FUNGUS	LOCATION	COMPARED TO OUTDOOR
Blakeslea trispora	27 (#3);	NP
Chaetomium	27 (#1);	NP
Cladosporium	27 (#1); 110 (#3); 110 (#6); 27 (#7)	110 (#2); 27 (#9)
Curvularia	27 (#1); 53 (#3); 27 (#4); 27 (#7)	53 (32); 27 (#9)
Ascospores	53 (#3); 27 (#7)	270 (#2); 210 (#9)
Basidiospore	27 (#1); 80 (#3); 27 (#5); 27 (#6); 53 (#7); 80 (#8)	770 (#2); 880 (#9)
Penicillium / Aspergillus	160 (#1); 27 (#3); 190 (#6); **9,900 (#7); 51,000 (#8)**	110 (#2); 53 (#9)
Smuts / Myxomycetes	27 (#1); 53 (#3); 27 (#5)	80 (#2); 27 (#9)
Spegazzinia	27 (#1)	27 (#9)

NP - Not present within the sample collected

Species:	**Blakeslea trispora**
Sample No.	**Aerocell #3**
Location:	**Office - Unit 501**
Sample Medium:	**Air**
Spore Count	**27**
Relative Level When Compared to the Outdoor Air Sample (NP):	**Background**

Description:

Blakeslea trispora is a widely distributed fungus that is considered a plant pathogen.

Pathogenicity and Clinical Significance:

Blakeslea trispora is a source of commercial beta carotene for dietary supplements and food additives. No known correlation between Blakeslea trispora and human infection exists at this time.

Species:	**Chaetomium**
Sample No.	**Aerocell #1**
Location:	**Living Room - Unit #502**
Sample Medium:	**Air**
Spore Count	**27**
Relative Level When Compared to the Outdoor Air Sample (NP):	**Background**

Description:

Chaetomium is a dematiaceous filamentous fungus found in soil, air, and plant debris. It is also found on a variety of substrates containing cellulose including paper and plant compost. It can be readily found on the damp or water damaged paper in drywall.

Pathogenicity and Clinical Significance:

Chaetomium spp. are among the fungi causing infections wholly referred to asphaeohyphomycosis. Fatal deep mycoses due to Chaetomium atrobrunneum have been reported in an immunocompromised host. Brain abscess, peritonitis, cutaneous lesions, and onychomycosis may also develop due to Chaetomium spp.

Species:	**Cladosporium**
Sample No.	**Aerocell #1, #3, #6 & #7**
Location:	**Living Room (502); Office (501); Living Room (500); Elevator**
Sample Medium:	**Air**
Spore Count	**27; 110; 110 & 27 respectively**
Relative Level When Compared to the Outdoor Air Sample (110 & 27):	**Background**

Description:

Cladosporium is a dematiaceous (pigmented) mold widely distributed in air and rotten organic material and frequently isolated as a contaminant on foods. Some species are predominant in tropical and subtropical regions.

Pathogenicity and Clinical Significance:

Cladosporium spp. are causative agents of skin lesions, keratitis, onychomycosis, sinusitis and pulmonary infections.

Species:	**Curvularia**
Sample No.	**Aerocell #1; #3; #4 & #7**
Location:	**Living Room (502); Office (501); Master/Den (500); Elevator**
Sample Medium:	**Air**
Spore Count	**27; 53; 27 & 27 respectively**
Relative Level When Compared to the Outdoor Air Sample (53 & 27):	**Background**

Description:

Curvularia is a dematiaceous filamentous fungus. Most species of Curvularia are facultative pathogens of soil, plants, and cereals in tropical or subtropical areas, while the remaining few are found in temperate zones. As well as being a contaminant, Curvularia may cause infections in both humans and animals.

Pathogenicity and Clinical Significance:

Curvularia spp. are among the causative agents of phaeohyphomycosis. Wound infections, mycetoma, onychomycosis, keratitis, allergic sinusitis, cerebral abscess, cerebritis, pneumonia, allergic bronchopulmonary disease, endocarditis, dialysis-associated peritonitis, and disseminated infections may develop due to Curvularia spp. Curvularia lunata is the most commonly encountered species. Importantly, the infections may develop in patients with intact immune system. However, similar to several other fungal genera, Curvularia has recently emerged also as an opportunistic pathogen that infects immunocompromised hosts.

Species:	**Ascospores**
Sample No.	**Aerocell #1 & #7**
Location:	**Living Room (502) & Elevator**
Sample Medium:	**Air**
Spore Count	**53 & 27 respectively**
Relative Level When Compared to the Outdoor Air Sample (270 & 210):	**Background**

Description:

Ascospores are the sexually produced fungal spores formed within an ascus. There are over 30,000 described species of Ascomycota and the majority are ascomycetes. Ascomycetes include a wide range of diverse organisms such as the yeasts, powdery mildews, cup fungi and the edible morels and truffles. In addition, plant diseases such as blackspot on roses and Dutch elm disease are caused by ascomycetes.