KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary

www.dol.ks.gov

August 9, 2007

Mr. Dan Balch
Department of Administration
Division of Facilities Management
Landon State Office Building
900 SW Jackson St. Room 653
Topeka, KS 66612

Inspection Number: 865708002

Mr. Balch:

On July 24, 2007, Helen Cook, Certified Industrial Hygienist and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an on-site inspection of your facilities to determine if possible unsafe or unhealthy working conditions might be present due to a specific complaint received in our department. This inspection was conducted under the authority granted the Secretary of Kansas Department of Labor by K.S.A. 44-636. A summary of findings follows on the Inspection Notice. We are pleased to report that no hazards were found as a result of the inspection.

It is our goal to continue to reduce the number of persons injured on the job in Kansas. With people like yourself assisting us, our attainment of that goal is made easier.

Again, thanks for your cooperation in this endeavor. If we may be of further assistance, please do not hesitate to contact this office.

Should you need any additional assistance or clarification regarding any of the enclosed findings, please contact this office or Helen Cook, Certified Industrial Hygienist, who visited your place of employment.

"You can obtain information about our upcoming Safety & Health Conference by going to our website at: www.dol.ks.gov, or by calling Dena Ackors at (785) 296-4386."

Sincerely,

/

Steve Zink, CSP
Director, Industrial Safety & Health

SZ: hc; bag
Enclosures: Health Inspection Report

INDUSTRIAL SAFETY AND HEALTH
800 S.W. Jackson Suite 1500, Topeka, KS 66612-1200 • phone (785) 296-4386 • fax (785) 296-1775

Kansas Department of Labor
Industrial Safety and Health Section

INDUSTRIAL SAFETY/HEALTH INSPECTION NOTICE

No recommendations are being made as a result of this complaint in facilities under your jurisdiction.

Docking Building

Inspection Number: 865708002

Summary of Complaint:

Employees in the Docking State Office Building located at 915 SW Harrison St. in Topeka, KS were complaining of a solvent odor on the 5th floor due to a recent remodeling project. Employees were also complaining of headaches due to inhaling fumes from a welding project that was occurring in the sub-basement level of the building.

SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

Kansas Department of Labor
Industrial Safety and Health
800 SW Jackson, Suite 1500
Topeka, KS 66612-1200
Phone: 785-296-4386
FAX: 785-296-1775
www.dol.ks.gov

Inspection Number: 865708002

INDOOR AIR QUALITY ASSESSMENT REPORT

EXECUTIVE SUMMARY

This report provides the results of an Indoor Air Quality Health Inspection of the Docking State Office Building located 915 Harrison St. in Topeka, KS. On July 24, 2007 Helen Cook, Certified Industrial Hygienist, and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an indoor air quality inspection, in response to employee concerns relative to indoor air quality to determine if any unhealthy conditions were present relative to indoor air quality. The inspection consisted of a visual inspection and a review of material safety data sheets (MSDSs). At the time of the inspection the Kansas Department of Labor found no problem regarding indoor air quality at Docking State Office Building facility.

Visual Inspection

On July 24, 2007, the Kansas Department of Labor conducted a visual inspection of the Docking State Office Building due to a complaint regarding fume and solvent odors. The facility is located at 915 Harrison St., in Topeka, Kansas. Prior to the inspection, Ms. Betsy Gaydess, Industrial Hygiene Consultant Trainee and Helen Cook, Certified Industrial Hygienist met with Mr. Dan Balch, Facilities Operation Manager and Mr. Kevin Fulton, Public Service Administrator II, to discuss the nature of the complaint. It was learned that a contractor had been hired to perform welding and cutting work in the sub-basement area of the building. Employees were concerned with the odors associated with this work. Also, the old carpet of an area on the 5th floor of the building had been removed and the floor beneath had been stripped to remove the residual glue from the former carpet. Employees were concerned with the solvent odors associated with the floor stripping process.

The walkthrough of the building began in the sub-basement where the contractor was observed performing the cutting and welding work. The indoor atmosphere in this area was initially found to be smoky and hazy at the time of entrance. However, large fans were present in the work area and it was deemed that ventilation of the area was satisfactory for the type of work being performed. Also, it was noted that no State of Kansas employee was asked to work in the sub-basement for extended periods of time while the work was being performed. The sub-basement area is vented outside; these vents are located at the south side of the building and are protected by a large grate. Employees located near the south side of the building were complaining of headaches. Helen Cook recommended that carbon monoxide monitors be placed in the rooms of the south side of the building to ensure that employees are not being exposed to carbon monoxide being exhausted through these vents. The welding project was expected to be finished shortly.

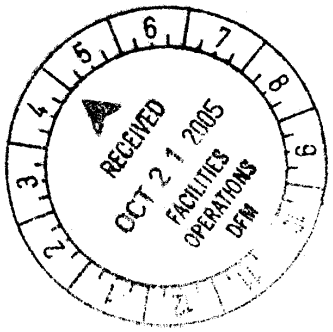
Employees were concerned with welding and cutting fumes when walking through the hallway of the basement area. A walkthrough of this hallway was performed; no odor was noted at the time of the walkthrough.

An inspection of the 5th floor of the Docking Building was performed to investigate the complaint regarding the presence of solvent fumes. It was explained to the KDOL representatives that carpet had been removed from the 5th floor recently and that it had been necessary to strip the floor to remove the residual glue. Helen Cook and Betsy Gaydess were then provided with copies of the material safety data sheets (MSDSs) of the chemicals that were used to strip the floors. Helen Cook did not think a problem existed with the chemicals used in this process. The stripping process had been finished at the time of the inspection. It was deemed at that the time of the inspection, no problem concerning solvent fumes existed.

Conclusion

At the time this inspection was conducted, KDOL determined that no state employees were being exposed to harmful fumes from the welding process occurring in the sub-basement or harmful solvent vapors from the stripping process. However, KDOL does suggest the installation of carbon monoxide detectors in rooms in the south side of the Docking Building to ensure that employees are not being exposed to elevated levels of carbon monoxide due to the exhaust vent located directly outside of the windows at this location.

KLEINFELDER
An employee owned company



October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Mold Testing and Site Observations
Docking State Office Building
11th Floor - South
Topeka, Kansas
Proposal No TEV05073

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited mold testing services and site observations at the above referenced location in Topeka, Kansas. We understand that suspect mold has been reported in the office spaces, and observed on piping located in mechanical areas of the building, and sampling of the air is requested. In addition, observations of the site are requested in order to assess the origin of the moisture intrusions.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Based on experience and preliminary observations of the spaces involved, we anticipate five (5) air samples would be collected: three (3) in the effected areas, one (1) in a non-effected area, and one (1) outdoors.

B. Provide a Senior Staff Professional to observe the site.

C. Provide a written report documenting the findings and conclusions of the Mold testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L: 2005\Proposals\TOP5P315

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

The estimated fees for the services are itemized as follows:

Project Professional II	$ 750.00
Air Monitoring for Mold (Analytical)	$ 400.00
Summary Report	$ 500.00
Estimated Fee	$ 1,650.00

The estimated fee includes collection and analysis of up to five (5) mold air samples. Additional required samples, approved by you, will be billed at a rate of $35.00/sample for surface collection and analysis, $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the signature blocks below and return a copy to our Topeka office to provide notice-to-proceed.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager

Rowley R. Tedlock
Environmental Services Manager

TWB:RT/kr

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: Dan Galeb (Print name of individual) FOR: Division of Facilities Management (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

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Department of Administration
Division of Facilities Management
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Inspection Number: 865708002

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SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

Kansas Department of Labor
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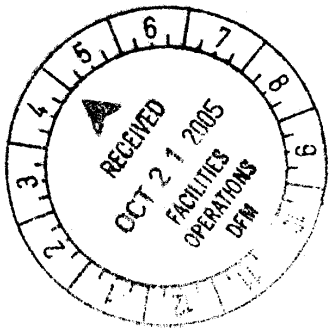

October 19, 2005

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900 SW Jackson, Room 600
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Docking State Office Building
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Topeka, Kansas
Proposal No TEV05073

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L: 2005\Proposals\TOP5P315

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

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Limited Mold Testing
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Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager

Rowley R. Tedlock
Environmental Services Manager

TWB:RT/kr

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: Dan Galeb (Print name of individual) FOR: Division of Facilities Management (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

LIMITED INDOOR AIR QUALITY SAMPLING SERVICES

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING – 4TH AND 10TH FLOORS
TOPEKA, KANSAS

PREPARED FOR:

MR. DENNIS BUELT
CAPITOL COMPLEX SAFETY COORDINATOR
KANSAS DIVISION OF FACILITIES MANAGEMENT
LANDON STATE OFFICE BUILDING
900 SW JACKSON STREET, ROOM 653
TOPEKA, KANSAS 66612-2210

PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.
8600 W. 110TH STREET, SUITE 120
OVERLAND PARK, KANSAS 66210
TEL: (913) 338-APEX FAX: (913) 338-2741
WWW.4APEX.COM

CLIENT:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612

PROJECT:

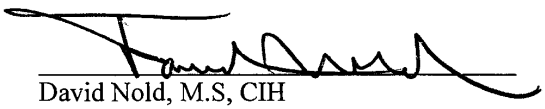
Limited Indoor Air Quality Sampling Services
Docking State Office Building – 4th and 10th Floors
Topeka, Kansas

APEX Project No.40588I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:



David Nold, M.S, CIH
Certified Industrial Hygienist

Address: 8600 W. 110th Street, Suite 120
Overland Park, Kansas 66210
Tel: (913) 338-2739 Fax: (913) 338-2741
e-mail: dnold@4apex.com

1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fourth and tenth floors of the Docking State Office Building on December 14, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually inspect the two floors for visible fungal contamination, and to conduct limited air quality sampling in each prospective area. It is understood that this work was initiated as a result of employee concerns regarding discoloration on the top of some of the convector units. David Nold, of APEX, conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, visible fungal contamination was observed on many of the diffuser grills located on convector units throughout the fourth and tenth floors (see Appendix B, Photo Log). The quantity of contamination ranged from light spotty growth on some of the units, to twenty square inches of light growth on other units. Laboratory results indicate that the visible fungal growth consists of species of Cladosporium, a ubiquitous and common type of fungi observed in the outdoor environment. Cladosporium is most often the predominate airborne species observed in the outdoor environment and is not considered a "toxic mold". However, Cladosporium is considered an allergen.

The main air handling system for the both the fourth and tenth floors was also inspected with no indication of abnormal conditions. The filters appeared to be in good condition and free of excessive dust and/or debris. Additionally, the ceiling diffuser vents associated with the main air handling systems appeared to be relatively clean.

Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology on the fourth and tenth floors of the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at lower concentrations. In other words, it does not appear that the visible fungal growth observed on the convector units is adversely affecting the air quality in the building.

3.0 SAMPLING METHODOLOGY

Seven (7) bioaerosol samples were obtained, including one (1) exterior control sample during the sampling effort. Representative sampling locations were chosen throughout the fourth and tenth floors, as well as an outdoor sample for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of October 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-01	4th floor, north	Zefon	15 L/min – 5 min
Z-02	4th floor, center	Zefon	15 L/min – 5 min
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min
Z-04	10th floor, north	Zefon	15 L/min – 5 min
Z-05	10th floor, center	Zefon	15 L/min – 5 min
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min
Z-07	Exterior Control	Zefon	15 L/min – 5 min

In addition to the bioaerosol samples, six (6) tape lift samples were collected in selected areas exhibiting suspect visible fungal amplification. The tape samples were mounted on clear glass slides, sealed in clean centrifuge tubes, and labeled with an identification number. The surface samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE
T-08	4th floor, east wall, ventilator diffuser	Tape
T-09	4th floor, south wall, ventilator diffuser	Tape
T-10	4th floor, west wall, ventilator diffuser	Tape
T-11	10th floor, east wall, ventilator diffuser	Tape
T-12	10th floor, south wall, ventilator diffuser	Tape
T-13	10th floor, west wall, ventilator diffuser	Tape
T = Tape		

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Diego, California for preparation, incubation, microscopic identification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M^3)	% OF OUTSIDE AIR (CONTROL)
Z-01	4th floor, north	66	19.9%
Z-02	4th floor, center	66	19.9%
Z-03	4th floor, south (Rebecca's Office)	66	19.9%
Z-04	10th floor, north	13	3.9%
Z-05	10th floor, center	13	3.9%
Z-06	10th floor , south (Receivables)	79	23.8%
Z-07	Exterior Control	332	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
T-08	4th floor, east wall, ventilator diffuser	Cladosporium 4+
T-09	4th floor, south wall, ventilator diffuser	Cladosporium 3+
T-10	4th floor, west wall, ventilator diffuser	Cladosporium 3+
T-11	10th floor, east wall, ventilator diffuser	Cladosporium 3+
T-12	10th floor, south wall, ventilator diffuser	Cladosporium 2+
T-13	10th floor, west wall, ventilator diffuser	Cladosporium 2+

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

The building was occupied under normal operating conditions at the time of sampling. Outdoor weather conditions were overcast and raining with a temperature in the mid 30's (degrees Fahrenheit).

Light fungal growth was identified on top of some of the convector units that run along the perimeter walls on both the fourth and tenth floors (see Appendix B, Photo Log). Surface sampling indicates this fungal growth consists of species of Cladosporium. Cladosporium is a ubiquitous type of fungi commonly observed in the outdoor environment and is not considered to be a "toxic mold". Furthermore, based on the

bioaerosol sampling performed, the fungal growth observed on the convector units does not appear to be adversely affecting the air quality. No evidence of abnormal airborne fungal ecology was observed on either the fourth or tenth floors. Nevertheless, fungal growth should not be allowed to grow and amplify in the indoor environment.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, light fungal growth was observed on top of some of the convector units located along the perimeter walls on the fourth and tenth floors of the building. However, based on the air sampling performed, no evidence of abnormal airborne fungal ecology was observed in the affected areas.

Due to the light fungal growth on the top of the convector units, APEX recommends that the units be cleaned in accordance with NADCA standards. Future cleaning of these units should be performed on the current quarterly maintenance schedule.

8.0 CONDITIONS AND LIMITATIONS

Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection

with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS

APEX Environmental Consultants, Inc.

8600 W. 110th Street • Overland Park, KS 66210 • (913) 338-2739 • FAX (913) 338-2741

Sample Chain of Custody

Sample Date: December 14, 2004 **Page:** 1 of 1

Project Name: Docking State Office Building, Topeka, KS **Contact:** David Nold **Project #:** 405881

Sample ID	*Location Description*	*Sample Type*	*Flow Rate/Time*	*Total Volume/Area*	*Notes*
Z-01	4th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-02	4th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min	75 Liters	
Z-04	10th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-05	10th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min	75 Liters	
Z-07	Exterior Control	Zefon	15 L/min – 5 min	75 Liters	
T-08	4th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-09	4th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-10	4th floor, west wall, ventilator diffuser	Tape	NA	NA	
T-11	10th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-12	10th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-13	10th floor, west wall, ventilator diffuser	Tape	NA	NA	

COPY

Additional Instructions:

- Standard Turnaround
- E-mail results to: dnold@4apex.com
- Please Fax results to Attn. Dave at (913) 338-2741
- Send invoice to: Accts. Payable, APEX Environmental Consultants

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-01: 4th floor, north		Z-02: 4th floor, center		Z-03: 4th floor, south (Rebecca's office)		Z-04: 10th floor, north	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	549669-1		549670-1		549671-1		549672-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria								
Arthrinium								
Ascospores*								
Aureobasidium								
Basidiospores*								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	4	53	4	53	4	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13	1	13	1	13		
Other colorless								
Penicillium/Aspergillus types†							1	13
Pithomyces								
Rusts*								
Smuts*, Periconia, Myxomycetes*								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		66		66		66		13

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-05: 10th floor, center		Z-06: 10th floor, south (Receivables)		Z-07: Exterior control	
Comments (see below)	None		None		None	
Lab ID-Version‡:	549673-1		549674-1		549675-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					4	53
Arthrinium						
Ascospores*			1	13		
Aureobasidium						
Basidiospores*			1	13		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	13	4	53	12	160
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown					1	13
Other colorless						
Penicillium/Aspergillus types†					4	53
Pithomyces						
Rusts*					1	13
Smuts*, Periconia, Myxomycetes*					2	27
Stachybotrys						
Stemphylium						
Torula					1	13
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		13		79		332

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-07: Exterior control

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	53	7 - 27 - 310	55
Ascospores	ND	13 - 160 - 3,200	75
Basidiospores	ND	27 - 370 - 14,000	95
Cladosporium	160	53 - 590 - 7,400	97
Other brown	13	7 - 13 - 93	40
Penicillium/Aspergillus types	53	38 - 210 - 2,600	94
Rusts	13	7 - 13 - 280	20
Smuts, Periconia, Myxomycetes	27	7 - 40 - 630	68
Torula	13	7 - 13 - 170	11
Total	332		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-01: 4th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Cladosporium	53
Other brown	13
Total	66

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-02: 4th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				53
Other brown				13
Total				66

Location: Z-03: 4th floor, south (Rebecca's office)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				53
Other brown				13
Total				66

Location: Z-04: 10th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.5446 Critical value: 0.6786 Outside Similar: No	Score: 101 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Penicillium/Aspergillus types				13
Total				13

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Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-05: 10th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.7321 Critical value: 0.6786 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				13
Total				13

Location: Z-06: 10th floor, south (Receivables)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 23%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.0750 Critical value: 0.5833 Outside Similar: No	Score: 102 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Ascospores				13
Basidiospores				13
Cladosporium				53
Total				79

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-07, Exterior control

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: December				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	53	7	22	300	37	13	91	910	69
Bipolaris/Drechslera group	-	7	13	200	12	7	13	80	22
Chaetomium	-	7	13	110	11	7	13	230	10
Cladosporium	160	27	430	6,300	94	51	1,300	19,000	99
Curvularia	-	7	13	460	11	7	13	260	22
Nigrospora	-	7	13	130	9	7	13	150	27
Other brown	13	7	13	80	34	7	20	93	44
Penicillium/Aspergillus types	53	27	210	2,400	93	51	270	3,300	96
Stachybotrys	-	7	13	320	3	7	13	670	4
Torula	13	7	13	93	4	7	13	420	18
Seldom found growing indoors**									
Ascospores	-	13	120	2,100	66	27	420	7,800	85
Basidiospores	-	25	360	12,000	93	51	1,100	17,000	98
Rusts	13	7	13	180	11	7	27	860	30
Smuts, Periconia, Myxomycetes	27	7	27	280	55	11	67	1,000	72
TOTAL SPORES/M3	332								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

DIRECT MICROSCOPIC EXAMINATION REPORT

(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 549676-1: Tape sample T-08: 4th floor, east wall, ventilator diffuser				
Scant	None	4+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549677-1: Tape sample T-09: 4th floor, south wall, ventilator diffuser				
Scant	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549678-1: Tape sample T-10: 4th floor, west wall, ventilator diffuser				
Moderate	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549679-1: Tape sample T-11: 10th floor, east wall, ventilator diffuser				
Moderate	Very few	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549680-1: Tape sample T-12: 10th floor, south wall, ventilator diffuser				
Moderate	None	2+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549681-1: Tape sample T-13: 10th floor, west wall, ventilator diffuser				
Moderate	Few	2+ *Cladosporium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

APPENDIX B
PHOTO LOG

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

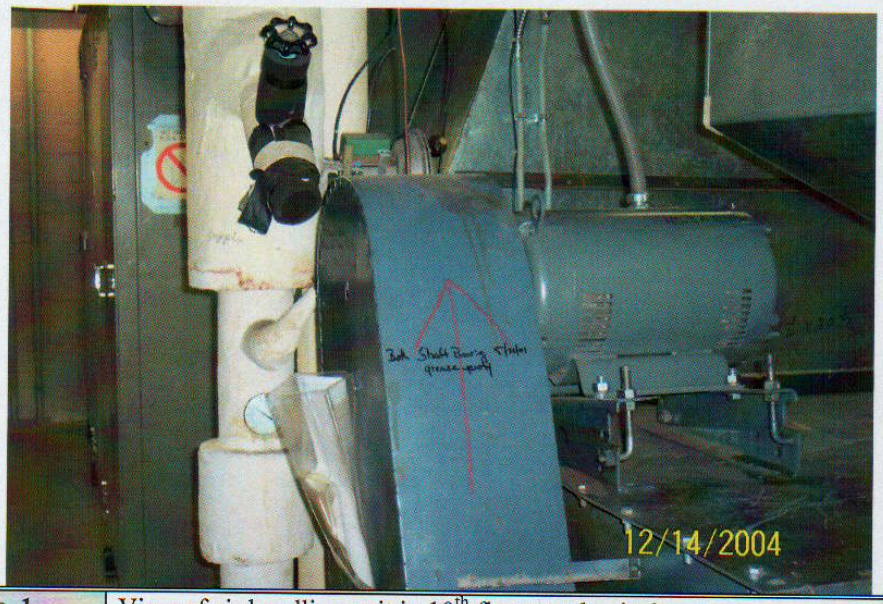

Photo No. 1	View of air handling unit in 10th floor mechanical room.

Photo No. 2	View of filters in 10th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 3	View of ceiling air diffuser located on 10th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 10th floor.

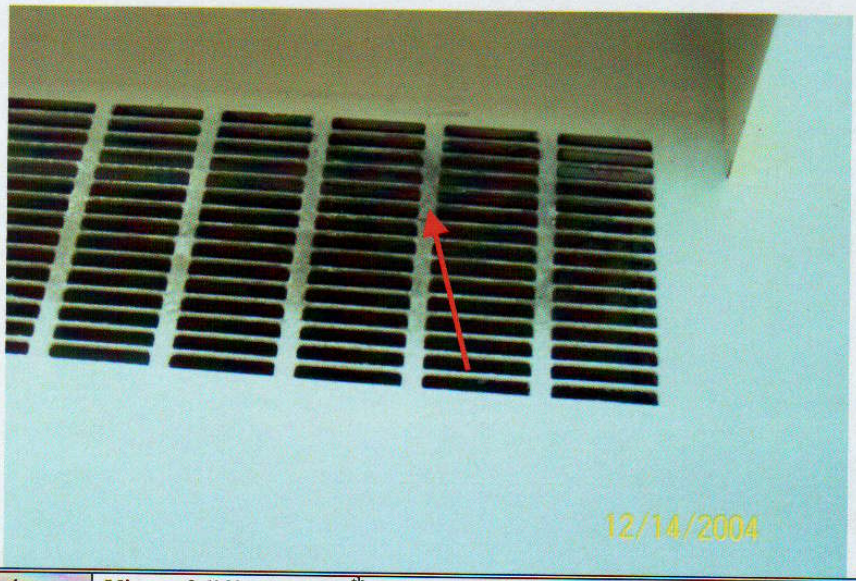

Photo No. 4	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-11.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 5	View inside 10th floor ventilator unit.

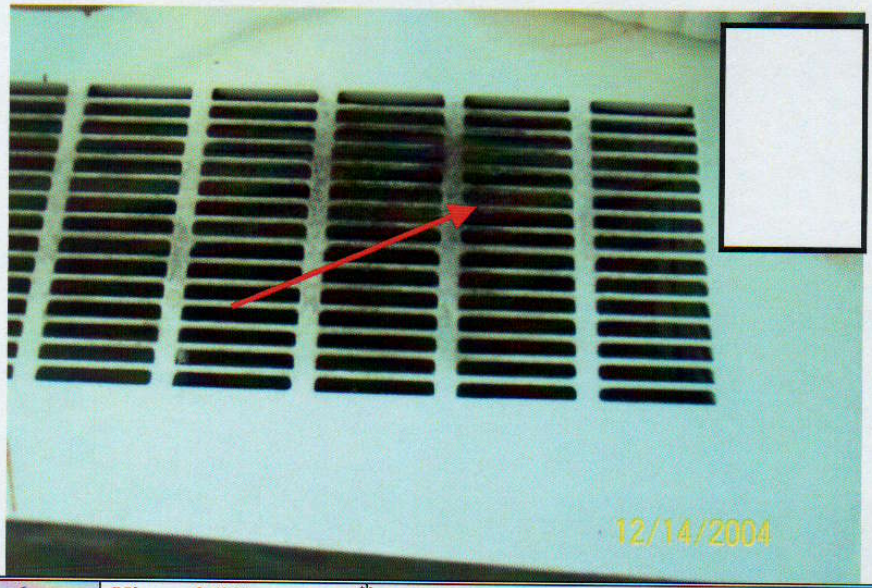

Photo No. 6	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-12.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 7	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-13.

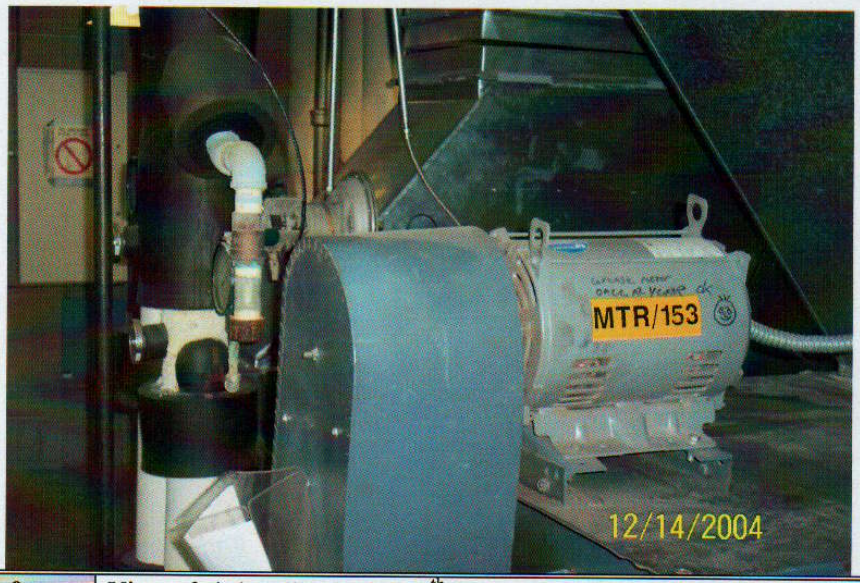

Photo No. 8	View of air handling unit in 4th floor mechanical room.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 9	View of filters in 4th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

Photo No. 10	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-08.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 11	View of ceiling air diffuser located on 4th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 4th floor.

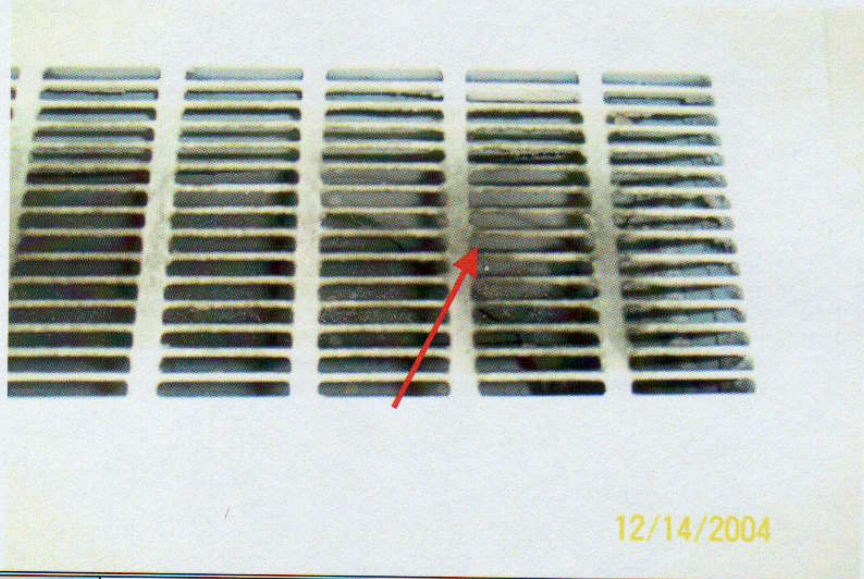

Photo No. 12	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-09.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 13	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-10.

Photo No. 14	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

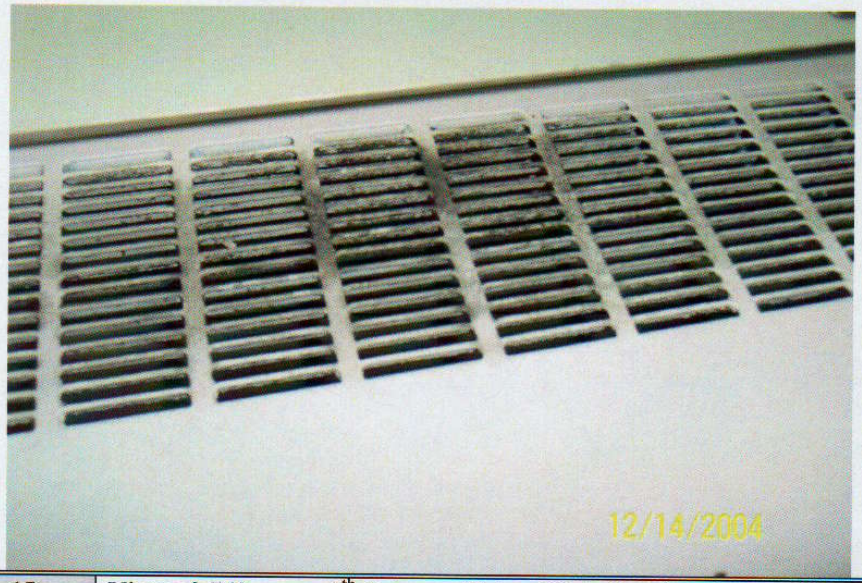

Photo No. 15	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

Photo No. 16	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 17	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

APEX ENVIRONMENTAL CONSULTANTS, INC.

8600 W. 110th Street, Suite 120 • Overland Park, Kansas 66210 • (913) 338-2739 • Fax (913) 338-2741

FAX COVER SHEET

DATE: 10/20/04

TO: JOAN ENGLE

FIRM: KS SELF INS. FUND

CC: _____

PHONE: _____

FAX: (785) 296-6995

- O URGENT
- ⊘ FOR REVIEW
- O FYI
- O PLEASE REPLY
- ⊘ ORIGINALS WILL BE SENT VIA: MAIL
- O THIS IS THE ONLY CORRESPONDENCE THAT WILL BE DELIVERED.

TOTAL NUMBER OF PAGES SENT: 25

SENT BY: CHRIS FREY

Message:

LIMITED FUNGI INVESTIGATION

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING
FIFTH FLOOR
TOPEKA, KANSAS

PREPARED FOR:

MS. JOAN ENGLE
STATE OF KANSAS
DEPARTMENT OF ADMINISTRATION
STATE SELF INSURANCE FUND
900 SW JACKSON, ROOM 920 NORTH
TOPEKA, KANSAS 66612

PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.
8600 W. 110TH STREET, SUITE 120
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WWW.4APEX.COM

APEX PROJECT NO. 40430I
OCTOBER 18, 2004

DOCKING STATE OFFICE BUILDING *TOPEKA, KANSAS*

CLIENT:

Ms. Joan Engle
State of Kansas
Department of Administration
State Self Insurance Fund
900 SW Jackson, Room 920 North
Topeka, Kansas 66612

PROJECT:

Limited Fungi Investigation
Fifth Floor
Docking State Office Building
Topeka, Kansas

APEX Project No.40430I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:

Christopher S. Frey, CIE
Vice President

Address: 8600 W. 110th Street, Suite 120
Overland Park, Kansas 66210
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e-mail: cfrey@4apex.com

1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fifth floor of Docking State Office Building on September 20, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually identify and quantify levels of environmental fungi in the air and on a variety of surfaces on the fifth floor of the building. It is understood that this work was initiated as a result of an employee complaint regarding potential exposure to mold while working in the subject area. Chris Frey conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, no visible fungal growth was observed during the inspection. Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology in the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at generally lower concentrations. Surface samples randomly collected from dust accumulations inside of the perimeter convector system indicated the presence of light fungal growth. Upon visual inspection and review of the analytical data, it is not believed that this growth is contributing to the indoor bioaerosol spore load in the subject area.

3.0 SAMPLING METHODOLOGY

Eleven (11) bioaerosol samples were obtained including two (2) exterior control samples on September 20, 2004. Representative sampling locations were chosen throughout the fifth floor, as well as outdoor samples for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of

the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of June 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-02	Center of Anita Talley's Work Station	Zefon	15 L/min – 5 min
Z-03	Center of Laura Stortzum's Work Station	Zefon	15 L/min – 5 min
Z-05	Outside Bob Hedberg's Work Station	Zefon	15 L/min – 5 min
Z-07	Center of Karen Parker's Work Station	Zefon	15 L/min – 5 min
Z-09	Center of Janice Jordan's Work Station	Zefon	15 L/min – 5 min
Z-11	Conference Area at North-Center Portion of 5th Floor	Zefon	15 L/min – 5 min
Z-13	Exterior Control – Southwest Corner of Building	Zefon	15 L/min – 5 min

Each viable (live) sample was collected using an agar plate in conjunction with an Andersen single-stage impactor and a Dawson high volume air sampling pump. The sampling pump was calibrated immediately before and after use to a flow rate of 28.3 liters per minute. Fungal plates were prepared with malt extract agar (MEA). The MEA plates had an expiration date of December 10, 2004. Please note that Andersen bioaerosol samples measure viable fungi that are present in the air.

Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
AF-01	Center of Anita Talley's Work Station	AF	28.3 L/min – 2 min
AF-06	Center of Beverly Rodger's Work Station	AF	28.3 L/min – 2 min
AF-10	Outside Kathy Goldsmith's Work Station	AF	28.3 L/min – 2 min
AF-14	Exterior Control – Southwest Corner of Building	AF	28.3 L/min – 2 min

In addition to the bioaerosol samples, three (3) swab samples were collected in selected areas exhibiting dust accumulation, water damage, and/or area where fungal spores tend to settle. Each swab sample was sealed in its original tube with suspension solution and labeled with an identification number. These samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION
S-04	Inside Convector Unit Adjacent to Anita Talley's W.S.
S-08	Inside Convector Unit in Bill Ossmann's Office
S-12	Inside Convector Unit - Ann Moneymaker's W.S.

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Bruno, California for preparation, incubation, microscopic quantification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the

following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M³)	% OF OUTSIDE AIR (CONTROL)
Z-02	Center of Anita Talley's Work Station	559	5%
Z-03	Center of Laura Stortzum's Work Station	332	3%
Z-05	Outside Bob Hedberg's Work Station	1,653	16%
Z-07	Center of Karen Parker's Work Station	292	3%
Z-09	Center of Janice Jordan's Work Station	119	1%
Z-11	Conference Area at North-Center Portion of 5th Floor	120	1%
Z-13	Exterior Control – Southwest Corner of Building	10,279	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

The following table provides the viable fungi concentrations for the bioaerosol samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (CFU/M³)	% OF OUTSIDE AIR (CONTROL)
AF-01	Center of Anita Talley's Work Station	194	8%
AF-06	Center of Beverly Rodger's Work Station	301	13%
AF-10	Outside Kathy Goldsmith's Work Station	71	3%
AF-14	Exterior Control – Southwest Corner of Building	2,328	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note

that other species/genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface swab samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
S-04	Inside Convector Unit Adjacent to Anita Talley's W.S.	<1+ *Cladosporium* species
S-08	Inside Convector Unit in Bill Ossmann's Office	1+ *Penicillium* species 1+ *Cladosporium* species
S-12	Inside Convector Unit - Ann Moneymaker's W.S.	2+ *Cladosporium* species 1+ *Penicillium* species

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As

stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

At the time of sampling, outdoor weather conditions were sunny with a temperature of 76 degrees Fahrenheit and relative humidity of 37%. The winds were light and variable and predominantly out of the south. The average interior temperature was 73.6 degrees and 39% relative humidity.

As previously indicated, there was no evidence of abnormal airborne fungal ecology observed in the interior samples collected. Light fungal growth was identified in dust accumulations inside of the convector units which run along the perimeter walls of the fifth floor. This growth was not visible; however, it was observed in each of the three surface samples collected. Upon visual inspection and review of the analytical data, it is not believed that this light growth is contributing to the indoor bioaerosol spore load in the subject area.

The dust accumulations did not appear to be abnormal, as these conditions are frequently observed in HVAC systems in commercial and public office buildings. According to Dennis Buelt, Capitol Complex Safety Officer, the convector units are maintained approximately on a quarterly basis.

It is important to note that the claimant, Anita Talley, retained some of the convector unit filters for APEX's inspection. The filters were noted to be dirty, but not overloaded. It is our opinion that the uniform dust accumulations on the filters indicate that the filters were filtering dust particles from the air, as designed.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, the analytical data provides no indication of degradation of indoor air quality with regard to fungal spores. No additional sampling is recommended at this time.

Considering that light fungal growth was observed in the dust accumulations inside of the convector units, we recommend that they be thoroughly cleaned in accordance with NADCA standards. The future maintenance of these units should be performed on the current quarterly schedule.

8.0 CONDITIONS AND LIMITATIONS

Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS

Environmental Microbiology Laboratory, Inc.

1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852

5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5805

www.emlab.com

Report for:

Mr. Chris Frey
Apex Environmental Consultants, Inc
8600 West 110th Street
Suite # 120
Overland Park, KS 66210 USA

Regarding: Project: 40430I; Docking State Office Bldg. 6th Floor
EML ID: 115396

Approved by:

Janet Gallup
Senior Aerobiologist

Dr. David A. Bell
Laboratory President

This coversheet is included with your report in order to comply with AIHA and ISO accreditation requirements.

For clarity, we report the number of significant digits as calculated; but, due to the nature of this type of biological data, the number of significant digits that is used for interpretation should generally be one or two. All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank corrections of results is not a standard practice.

Document Number: 200091 - Revision Number: 3

Environmental Microbiology Laboratory, Inc.
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-02: Center of Anita Talley's work station		Z-03: Center of Laura Stortzum's work station		Z-05: Outside Bob Hedberg's work station		Z-07: Center of Karen Parker's work station	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	493047-1		493048-1		493049-1		493050-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					1	13		
Arthrinium								
Ascospores*	4	53	4	53	8	107		
Aureobasidium								
Basidiospores*			4	53	16	213	4	53
Bipolaris/Drechslera group								
Botrytis								
Cercospora								
Cladosporium	12	160	8	107	36	480	4	53
Curvularia	1	13						
Epicoccum								
Fusarium	1	13			4	53		
Myrothecium								
Nigrospora								
Oidium								
Other brown					2	27		
Penicillium/Aspergillus types†	24	320	4	53	56	747	12	160
Pithomyces								
Polythrincium								
Rusts*			1	13	1	13	1	13
Smuts*, Periconia, Myxomycetes*			4	53			1	13
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	2+		1+		2+		2+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		559		332		1,653		292

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may obscure the small spores such as the *Penicillium/Aspergillus* group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.
‡ A "Version" greater than 1 indicates amended data.

Environmental Microbiology Laboratory, Inc.
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-09: Center of Janice Jordan's work station		Z-11: Conference area at north-center portion of 5th floor		Z-13: Exterior control, southwest corner of building	
Comments (see below)	None		None		None	
Lab ID-Version‡:	493051-1		493052-1		493053-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					13	173
Arthrinium						
Ascospores*	4	53			28	373
Aureobasidium						
Basidiospores*					108	1,440
Bipolaris/Drechslera group						
Botrytis						
Cercospora					6	80
Cladosporium			8	107	516	6,880
Curvularia					1	13
Epicoccum					8	107
Fusarium						
Myrothecium						
Nigrospora					1	13
Oidium					1	13
Other brown						
Penicillium/Aspergillus types†	4	53			60	800
Pithomyces						
Polythrincium					1	13
Rusts*					23	307
Smuts*, Periconia, Myxomycetes*	1	13	1	13	5	67
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	2+		1+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		119		120		10,279

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may obscure the small spores such as the *Penicillium/Aspergillus* group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.
‡ A "Version" greater than 1 indicates amended data.

09-22-2004: 40430I

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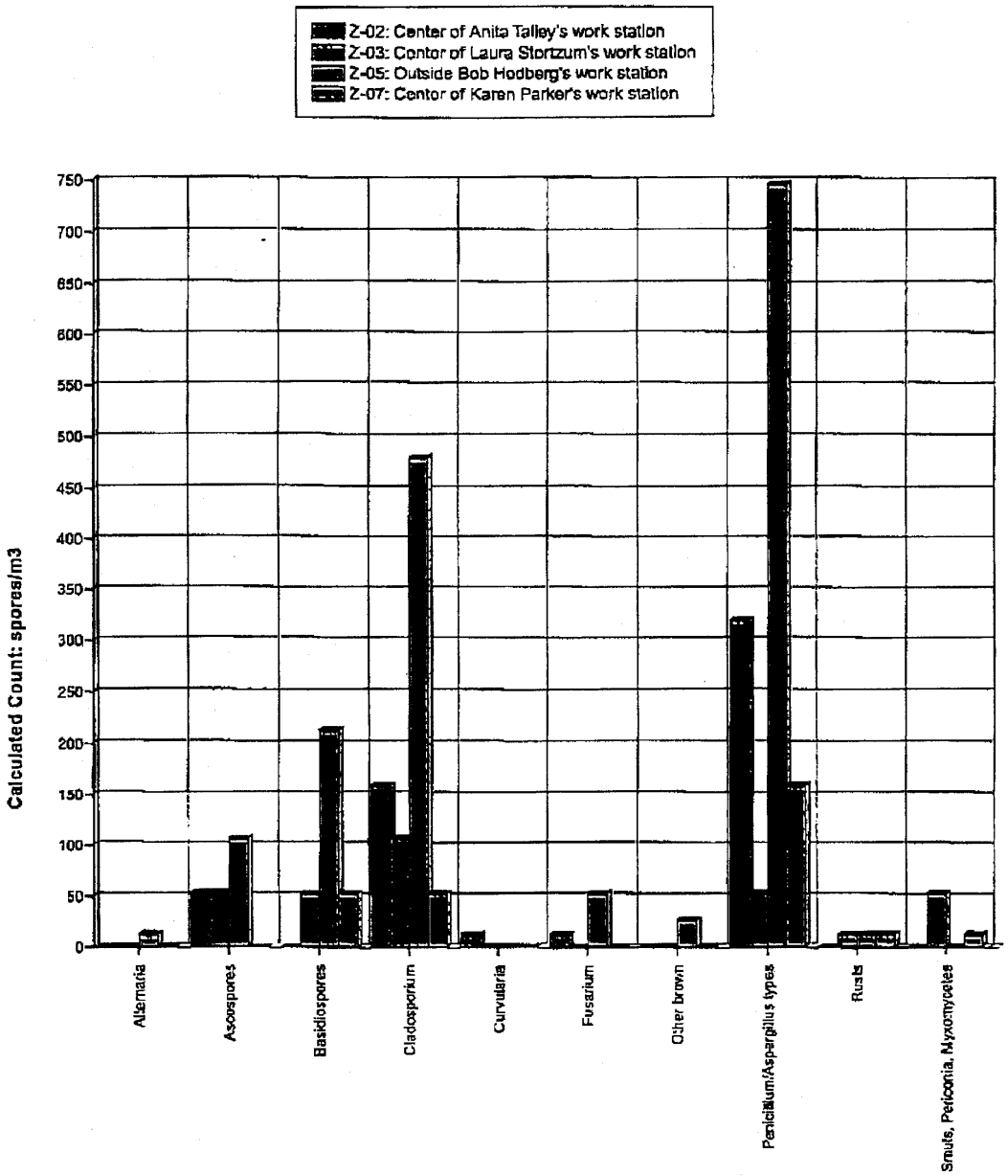
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:
Note: Graphical output may understate the importance of certain "marker" genera.

09-22-2004: 404301

Environmental Microbiology Laboratory, Inc.
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
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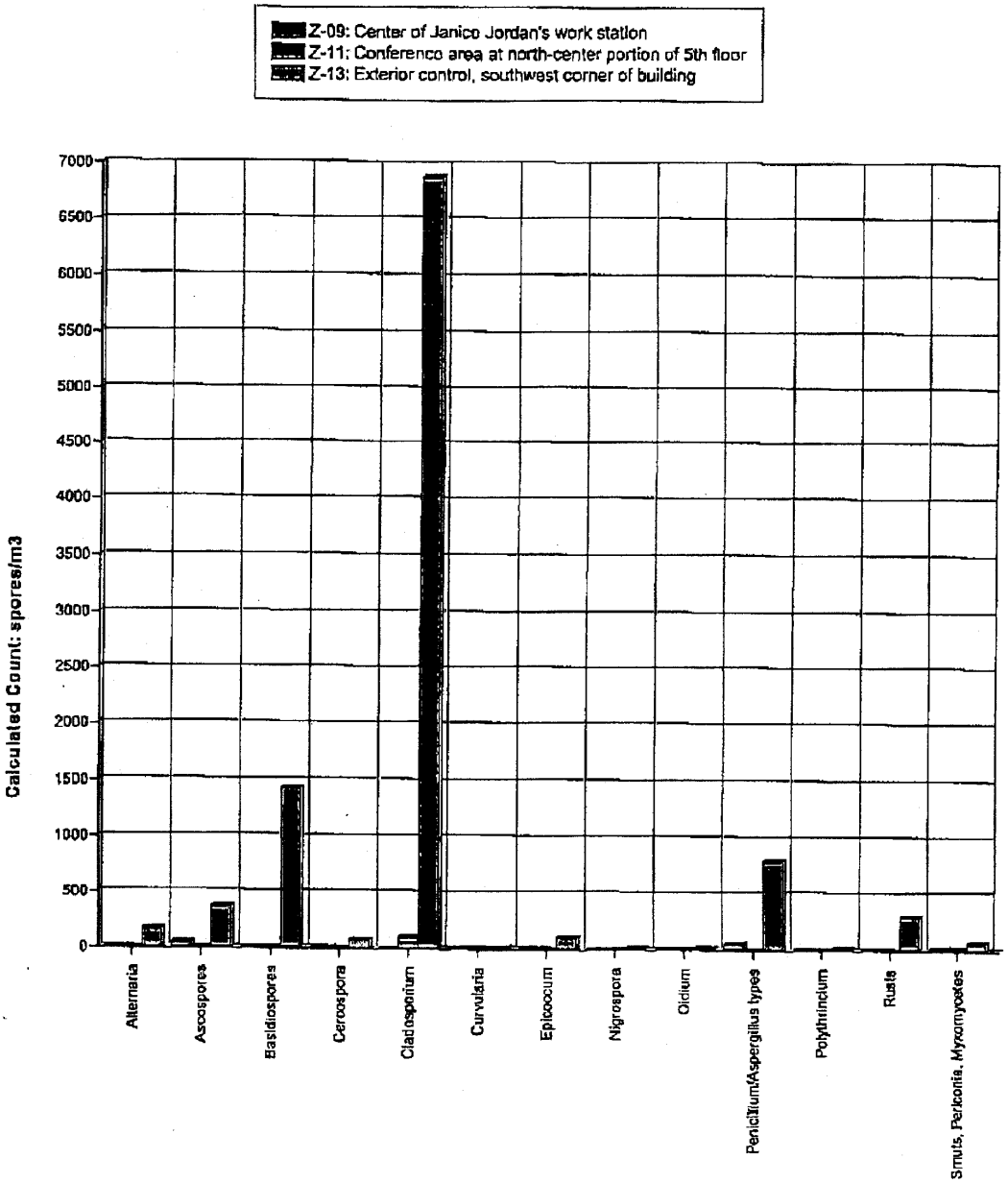
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:

Note: Graphical output may understate the importance of certain "marker" genera.

Environmental Microbiology Laboratory, Inc.
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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-27-2004

CULTURABLE AIR FUNGI REPORT

Location:	AF-01: Center of Anita Talley's work station		AF-06: Center of Beverly Rodger's work station		AF-10: Outside Kathy Goldsmith's work station		AF-14: Exterior control, southwest corner of building	
Comments (see below)	None		None		None		A	
Lab ID-Version‡:	493037-1		493038-1		493039-1		493040-1	
	raw ct.	cfu*/m3	raw ct.	cfu*/m3	raw ct.	cfu*/m3	raw ct.	cfu*/m3
Acremonium								
Alternaria							1	18
Aspergillus flavus								
Aspergillus fumigatus								
Aspergillus nidulans								
Aspergillus niger								
Aspergillus ochraceus								
Aspergillus versicolor								
Aureobasidium								
Basidiomycetes								
Beauveria					1	18		
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	6	106	9	159	1	18	102	2,080
Curvularia								
Epicoccum			1	18				
Fusarium								
Non-sporulating fungi	2	35	2	35			4	71
Paecilomyces								
Penicillium			4	71	2	35	5	88
Pithomyces	1	18						
Rhizopus							1	18
Sporothrix	2	35	1	18				
Ulocladium								
Yeasts							3	53
Positive Hole	400		400		400		400	
Sample volume (liters)	56.6		56.6		56.6		56.6	
TOTAL CFU*/M3		194		301		71		2,328

* cfu = colony forming units Positive hole correction chart used for all calculations AIHA EMPAT NO.: 102856

Comments: A) The sample was overgrown with a *Rhizopus* species which may have reduced or eliminated the presence of other fungi.

Note: Interpretation is left to the company and/or persons who conducted the field work. Variation is an inherent part of biological sampling. The presence or absence of a few genera in small numbers should not be considered abnormal.
NORMAL SPORE LEVELS: Indoor spore levels usually average 30 to 80% of the outdoor spore level at the time of sampling, with the same general distribution of spore types. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. (These percentages are guidelines, only. A major factor is the accessibility of outdoor air. A residence with open doors and windows and heavy foot traffic may average 95% of the outdoor level while high rise office buildings with little air exchange may average 2%. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types.)
PROBLEM INTERIORS: A substantial increase of one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.
‡ A "Version" greater than 1 indicates amended data.

09-27-2004: 40430I

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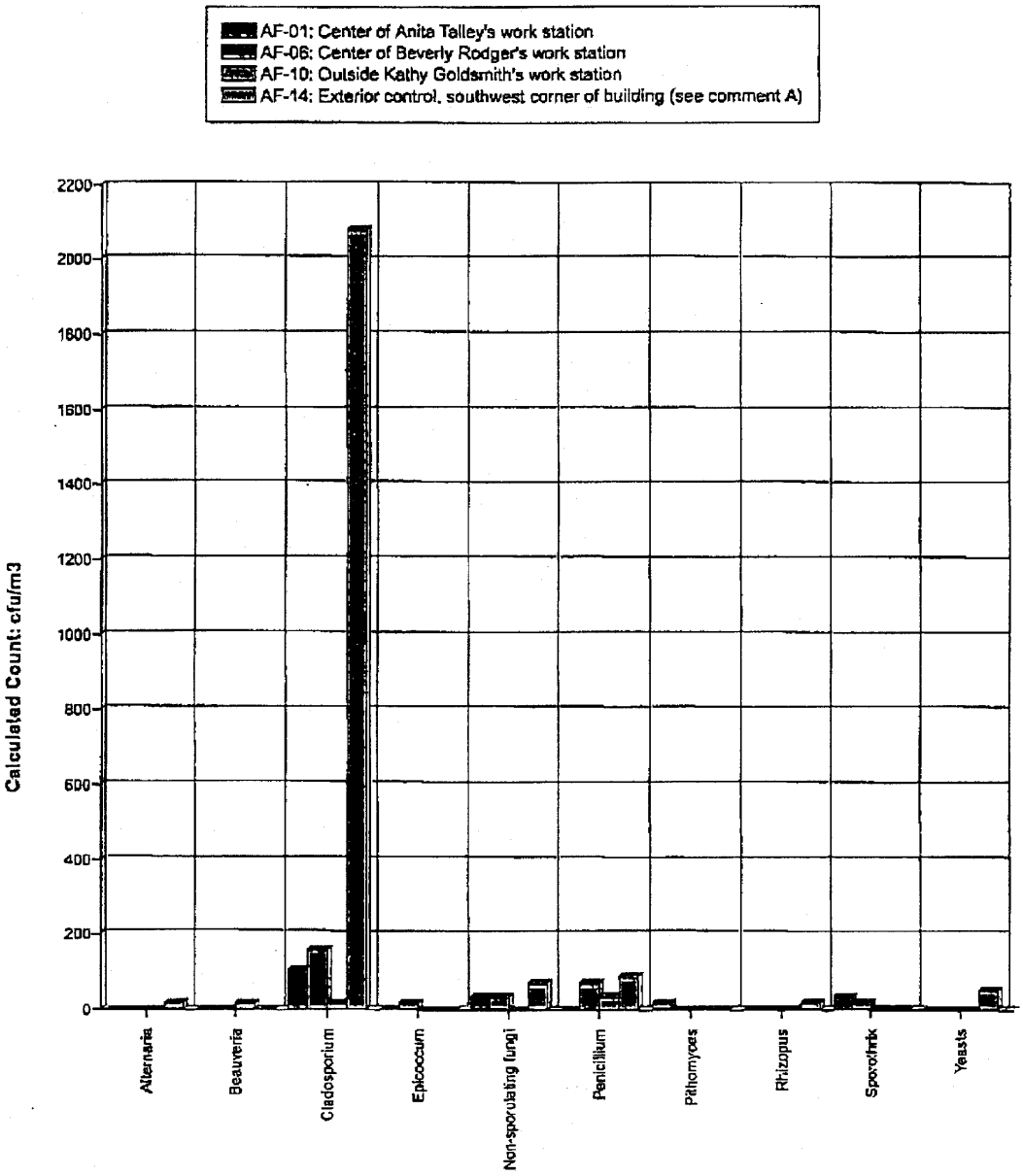
CULTURABLE AIR FUNGI REPORT



Comments: A) The sample was overgrown with a *Rhizopus* species which may have reduced or eliminated the presence of other fungi.

Note: Graphical output may understate the importance of certain "marker" genera.

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C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

DIRECT MICROSCOPIC EXAMINATION REPORT
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 493054-1: Swab sample S-04: Inside convector unit adjacent to Anita Talley's W.S.				
Light	Few	< 1+ *Cladosporium* species	None	Minimal mold growth
Lab ID-Version: 493055-1: Swab sample S-08: Inside convector unit in Bill Ossmann's office				
Light	Few	1+ *Penicillium* species 1+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 493056-1: Swab sample S-12: Center of Ann Moneymaker's work station				
Light	Few	2+ *Cladosporium* species 1+ *Penicillium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-13: Exterior control, southwest corner of building

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	173	7 - 27 - 320	56
Ascospores	373	13 - 160 - 3,300	74
Basidiospores	1,440	27 - 360 - 13,000	95
Cercospora	80	7 - 27 - 430	6
Cladosporium	6,880	53 - 590 - 7,900	97
Curvularia	13	7 - 20 - 570	14
Epicoccum	107	7 - 13 - 230	20
Nigrospora	13	7 - 13 - 270	12
Oidium	13	7 - 13 - 210	15
Penicillium/Aspergillus types	800	38 - 210 - 2,600	94
Polythrincium	13	7 - 13 - 170	2
Rusts	307	7 - 13 - 260	20
Smuts, Periconia, Myxomycetes	67	7 - 40 - 670	68
Total	10,279		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-02: Center of Anita Talley's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 5%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.4444	dF: 14 Result: 0.4044 Critical value: 0.4593 Outside Similar: No	Score: 105 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Ascospores	53
Cladosporium	160
Curvularia	13
Fusarium	13
Penicillium/Aspergillus types	320
Total	559

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Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-03: Center of Laura Stortzum's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.6316	dF: 13 Result: 0.8022 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Ascospores		53
Basidiospores		53
Cladosporium		107
Penicillium/Aspergillus types		53
Rusts		13
Smuts, Periconia, Myxomycetes		53
Total		332

Location: Z-05: Outside Bob Hedberg's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 16%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.5714	dF: 15 Result: 0.5929 Critical value: 0.4429 Outside Similar: Yes	Score: 131 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Alternaria		13
Ascospores		107
Basidiospores		213
Cladosporium		480
Fusarium		53
Other brown		27
Penicillium/Aspergillus types		747
Rusts		13
Total		1,653

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-07: Center of Karen Parker's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 2%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.5556	dF: 13 Result: 0.7418 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Basidiospores		53
Cladosporium		53
Penicillium/Aspergillus types		160
Rusts		13
Smuts, Periconia, Myxomycetes		13
Total		292

Location: Z-09: Center of Janice Jordan's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.3750	dF: 13 Result: 0.4505 Critical value: 0.4780 Outside Similar: No	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Ascospores		53
Penicillium/Aspergillus types		53
Smuts, Periconia, Myxomycetes		13
Total		119

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-11: Conference area at north-center portion of 5th floor

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.2667	dF: 13 Result: 0.4808 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					107
Smuts, Periconia, Myxomycetes					13
Total					120

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-13, Exterior control, southwest corner of building

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: September				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	173	7	33	560	68	7	91	1,000	69
Bipolaris/Drechslera group	-	7	13	250	26	7	13	80	21
Chaetomium	-	7	13	93	20	7	13	350	10
Cladosporium	6,880	53	850	13,000	99	51	1,300	20,000	99
Curvularia	13	7	27	750	30	7	13	130	20
Epicoccum	107	7	13	360	26	7	26	250	45
Nigrospora	13	7	20	520	24	7	13	140	24
Penicillium/Aspergillus types	800	53	320	4,100	96	51	270	3,400	98
Polythrincium	13	7	13	280	4	7	13	79	6
Stachybotrys	-	7	13	320	5	7	13	640	5
Torula	-	7	13	100	14	7	20	390	18
Seldom found growing indoors**									
Ascospores	373	13	160 -	3,700	76	35	470	9,300	83
Basidiospores	1,440	27	370	23,000	97	51	1,200	18,000	97
Cercospora	80	7	33	1,100	12	7	38	250	26
Oidium	13	7	13	200	13	7	13	160	13
Rusts	307	7	13	250	23	7	25	730	26
Smuts, Periconia, Myxomycetes	67	8	53	690	82	13	65	1,000	70
TOTAL SPORES/M3	10,279								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

LIMITED INDOOR AIR QUALITY SAMPLING SERVICES

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING – 4TH AND 10TH FLOORS
TOPEKA, KANSAS

PREPARED FOR:

MR. DENNIS BUELT
CAPITOL COMPLEX SAFETY COORDINATOR
KANSAS DIVISION OF FACILITIES MANAGEMENT
LANDON STATE OFFICE BUILDING
900 SW JACKSON STREET, ROOM 653
TOPEKA, KANSAS 66612-2210

PREPARED BY:

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CLIENT:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612

PROJECT:

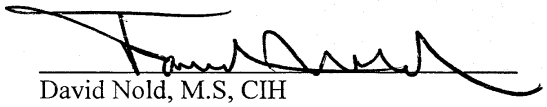
Limited Indoor Air Quality Sampling Services
Docking State Office Building – 4th and 10th Floors
Topeka, Kansas

APEX Project No.40588I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:



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1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fourth and tenth floors of the Docking State Office Building on December 14, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually inspect the two floors for visible fungal contamination, and to conduct limited air quality sampling in each prospective area. It is understood that this work was initiated as a result of employee concerns regarding discoloration on the top of some of the convector units. David Nold, of APEX, conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, visible fungal contamination was observed on many of the diffuser grills located on convector units throughout the fourth and tenth floors (see Appendix B, Photo Log). The quantity of contamination ranged from light spotty growth on some of the units, to twenty square inches of light growth on other units. Laboratory results indicate that the visible fungal growth consists of species of Cladosporium, a ubiquitous and common type of fungi observed in the outdoor environment. Cladosporium is most often the predominate airborne species observed in the outdoor environment and is not considered a "toxic mold". However, Cladosporium is considered an allergen.

The main air handling system for the both the fourth and tenth floors was also inspected with no indication of abnormal conditions. The filters appeared to be in good condition and free of excessive dust and/or debris. Additionally, the ceiling diffuser vents associated with the main air handling systems appeared to be relatively clean.

Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology on the fourth and tenth floors of the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at lower concentrations. In other words, it does not appear that the visible fungal growth observed on the convector units is adversely affecting the air quality in the building.

3.0 SAMPLING METHODOLOGY

Seven (7) bioaerosol samples were obtained, including one (1) exterior control sample during the sampling effort. Representative sampling locations were chosen throughout the fourth and tenth floors, as well as an outdoor sample for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of October 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-01	4th floor, north	Zefon	15 L/min – 5 min
Z-02	4th floor, center	Zefon	15 L/min – 5 min
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min
Z-04	10th floor, north	Zefon	15 L/min – 5 min
Z-05	10th floor, center	Zefon	15 L/min – 5 min
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min
Z-07	Exterior Control	Zefon	15 L/min – 5 min

In addition to the bioaerosol samples, six (6) tape lift samples were collected in selected areas exhibiting suspect visible fungal amplification. The tape samples were mounted on clear glass slides, sealed in clean centrifuge tubes, and labeled with an identification number. The surface samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE
T-08	4th floor, east wall, ventilator diffuser	Tape
T-09	4th floor, south wall, ventilator diffuser	Tape
T-10	4th floor, west wall, ventilator diffuser	Tape
T-11	10th floor, east wall, ventilator diffuser	Tape
T-12	10th floor, south wall, ventilator diffuser	Tape
T-13	10th floor, west wall, ventilator diffuser	Tape
T = Tape		

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Diego, California for preparation, incubation, microscopic identification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M^3)	% OF OUTSIDE AIR (CONTROL)
Z-01	4th floor, north	66	19.9%
Z-02	4th floor, center	66	19.9%
Z-03	4th floor, south (Rebecca's Office)	66	19.9%
Z-04	10th floor, north	13	3.9%
Z-05	10th floor, center	13	3.9%
Z-06	10th floor , south (Receivables)	79	23.8%
Z-07	Exterior Control	332	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
T-08	4th floor, east wall, ventilator diffuser	Cladosporium 4+
T-09	4th floor, south wall, ventilator diffuser	Cladosporium 3+
T-10	4th floor, west wall, ventilator diffuser	Cladosporium 3+
T-11	10th floor, east wall, ventilator diffuser	Cladosporium 3+
T-12	10th floor, south wall, ventilator diffuser	Cladosporium 2+
T-13	10th floor, west wall, ventilator diffuser	Cladosporium 2+

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

The building was occupied under normal operating conditions at the time of sampling. Outdoor weather conditions were overcast and raining with a temperature in the mid 30's (degrees Fahrenheit).

Light fungal growth was identified on top of some of the convector units that run along the perimeter walls on both the fourth and tenth floors (see Appendix B, Photo Log). Surface sampling indicates this fungal growth consists of species of Cladosporium. Cladosporium is a ubiquitous type of fungi commonly observed in the outdoor environment and is not considered to be a "toxic mold". Furthermore, based on the

bioaerosol sampling performed, the fungal growth observed on the convector units does not appear to be adversely affecting the air quality. No evidence of abnormal airborne fungal ecology was observed on either the fourth or tenth floors. Nevertheless, fungal growth should not be allowed to grow and amplify in the indoor environment.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, light fungal growth was observed on top of some of the convector units located along the perimeter walls on the fourth and tenth floors of the building. However, based on the air sampling performed, no evidence of abnormal airborne fungal ecology was observed in the affected areas.

Due to the light fungal growth on the top of the convector units, APEX recommends that the units be cleaned in accordance with NADCA standards. Future cleaning of these units should be performed on the current quarterly maintenance schedule.

8.0 CONDITIONS AND LIMITATIONS

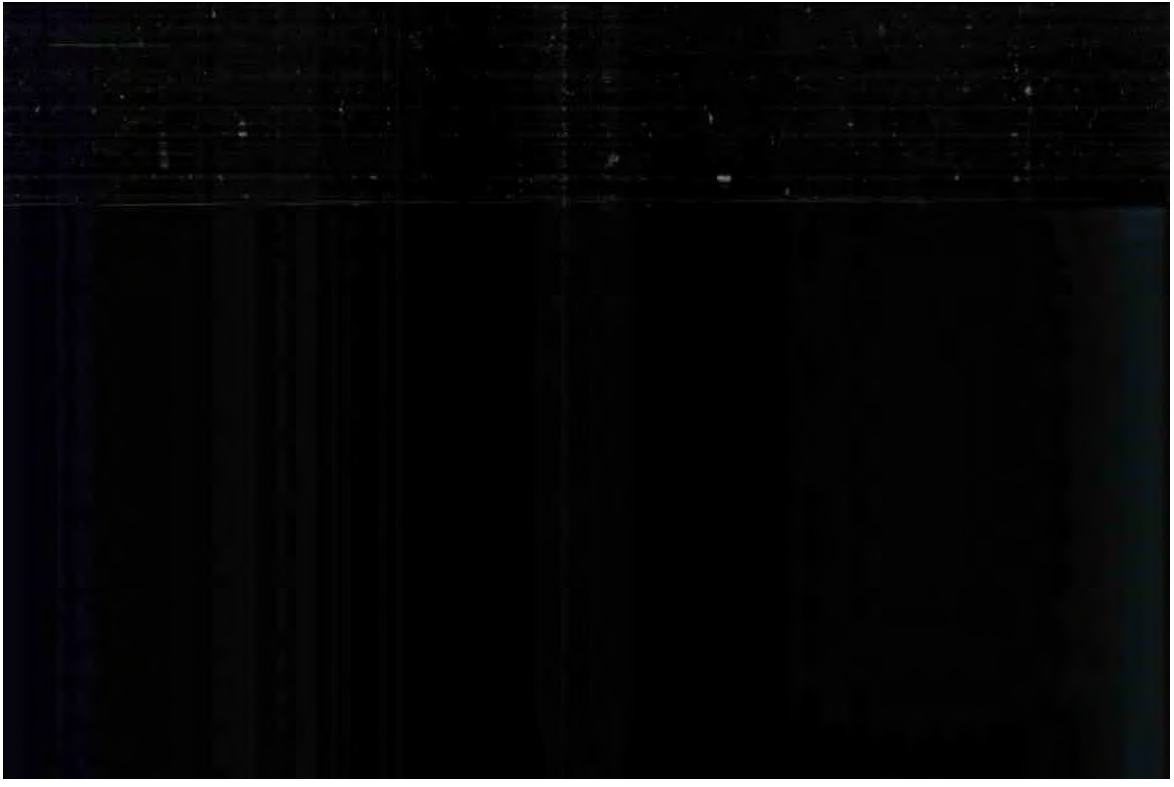
Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection

with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS



APEX Environmental Consultants, Inc.

8600 W. 110th Street • Overland Park, KS 66210 • (913) 338-2739 • FAX (913) 338-2741

Sample Chain of Custody

Sample Date: December 14, 2004 **Page:** 1 of 1

Project Name: Docking State Office Building, Topeka, KS **Contact:** David Nold **Project #:** 405881

Sample ID	*Location Description*	*Sample Type*	*Flow Rate/Time*	*Total Volume/Area*	*Notes*
Z-01	4th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-02	4th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min	75 Liters	
Z-04	10th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-05	10th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min	75 Liters	
Z-07	Exterior Control	Zefon	15 L/min – 5 min	75 Liters	
T-08	4th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-09	4th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-10	4th floor, west wall, ventilator diffuser	Tape	NA	NA	
T-11	10th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-12	10th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-13	10th floor, west wall, ventilator diffuser	Tape	NA	NA	

Additional Instructions:

- Standard Turnaround
- E-mail results to: dnold@4apex.com
- Please Fax results to Attn. Dave at (913) 338-2741
- Send invoice to: Accts. Payable, APEX Environmental Consultants

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-01: 4th floor, north		Z-02: 4th floor, center		Z-03: 4th floor, south (Rebecca's office)		Z-04: 10th floor, north	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	549669-1		549670-1		549671-1		549672-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria								
Arthrinium								
Ascospores*								
Aureobasidium								
Basidiospores*								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	4	53	4	53	4	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13	1	13	1	13		
Other colorless								
Penicillium/Aspergillus types†							1	13
Pithomyces								
Rusts*								
Smuts*, Periconia, Myxomycetes*								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		66		66		66		13

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-05: 10th floor, center		Z-06: 10th floor, south (Receivables)		Z-07: Exterior control	
Comments (see below)	None		None		None	
Lab ID-Version‡:	549673-1		549674-1		549675-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					4	53
Arthrinium						
Ascospores*			1	13		
Aureobasidium						
Basidiospores*			1	13		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	13	4	53	12	160
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown					1	13
Other colorless						
Penicillium/Aspergillus types†					4	53
Pithomyces						
Rusts*					1	13
Smuts*, Periconia, Myxomycetes*					2	27
Stachybotrys						
Stemphylium						
Torula					1	13
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		13		79		332

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-07: Exterior control

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	53	7 - 27 - 310	55
Ascospores	ND	13 - 160 - 3,200	75
Basidiospores	ND	27 - 370 - 14,000	95
Cladosporium	160	53 - 590 - 7,400	97
Other brown	13	7 - 13 - 93	40
Penicillium/Aspergillus types	53	38 - 210 - 2,600	94
Rusts	13	7 - 13 - 280	20
Smuts, Periconia, Myxomycetes	27	7 - 40 - 630	68
Torula	13	7 - 13 - 170	11
Total	332		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-01: 4th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Cladosporium	53
Other brown	13
Total	66

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-02: 4th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					53
Other brown					13
Total					66

Location: Z-03: 4th floor, south (Rebecca's office)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					53
Other brown					13
Total					66

Location: Z-04: 10th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.5446 Critical value: 0.6786 Outside Similar: No	Score: 101 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Penicillium/Aspergillus types					13
Total					13

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-05: 10th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.7321 Critical value: 0.6786 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					13
Total					13

Location: Z-06: 10th floor, south (Receivables)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 23%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.0750 Critical value: 0.5833 Outside Similar: No	Score: 102 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Ascospores					13
Basidiospores					13
Cladosporium					53
Total					79

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Sampling: 12-14-2004
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MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-07, Exterior control

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: December				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	53	7	22	300	37	13	91	910	69
Bipolaris/Drechslera group	-	7	13	200	12	7	13	80	22
Chaetomium	-	7	13	110	11	7	13	230	10
Cladosporium	160	27	430	6,300	94	51	1,300	19,000	99
Curvularia	-	7	13	460	11	7	13	260	22
Nigrospora	-	7	13	130	9	7	13	150	27
Other brown	13	7	13	80	34	7	20	93	44
Penicillium/Aspergillus types	53	27	210	2,400	93	51	270	3,300	96
Stachybotrys	-	7	13	320	3	7	13	670	4
Torula	13	7	13	93	4	7	13	420	18
Seldom found growing indoors**									
Ascospores	-	13	120	2,100	66	27	420	7,800	85
Basidiospores	-	25	360	12,000	93	51	1,100	17,000	98
Rusts	13	7	13	180	11	7	27	860	30
Smuts, Periconia, Myxomycetes	27	7	27	280	55	11	67	1,000	72
TOTAL SPORES/M3	332								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

DIRECT MICROSCOPIC EXAMINATION REPORT
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 549676-1: Tape sample T-08: 4th floor, east wall, ventilator diffuser				
Scant	None	4+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549677-1: Tape sample T-09: 4th floor, south wall, ventilator diffuser				
Scant	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549678-1: Tape sample T-10: 4th floor, west wall, ventilator diffuser				
Moderate	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549679-1: Tape sample T-11: 10th floor, east wall, ventilator diffuser				
Moderate	Very few	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549680-1: Tape sample T-12: 10th floor, south wall, ventilator diffuser				
Moderate	None	2+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549681-1: Tape sample T-13: 10th floor, west wall, ventilator diffuser				
Moderate	Few	2+ *Cladosporium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

APPENDIX B
PHOTO LOG

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 1	View of air handling unit in 10th floor mechanical room.

Photo No. 2	View of filters in 10th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 3	View of ceiling air diffuser located on 10th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 10th floor.

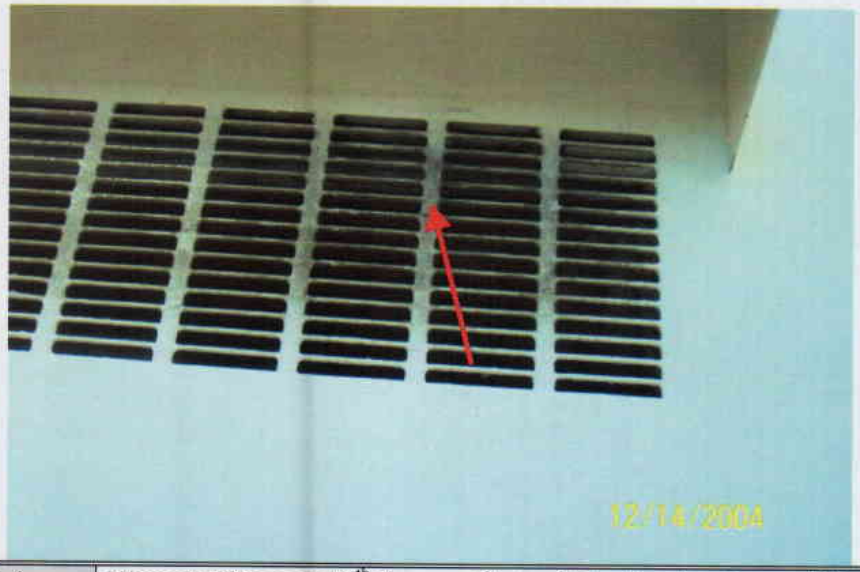


Photo No. 4	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-11.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 5	View inside 10th floor ventilator unit.

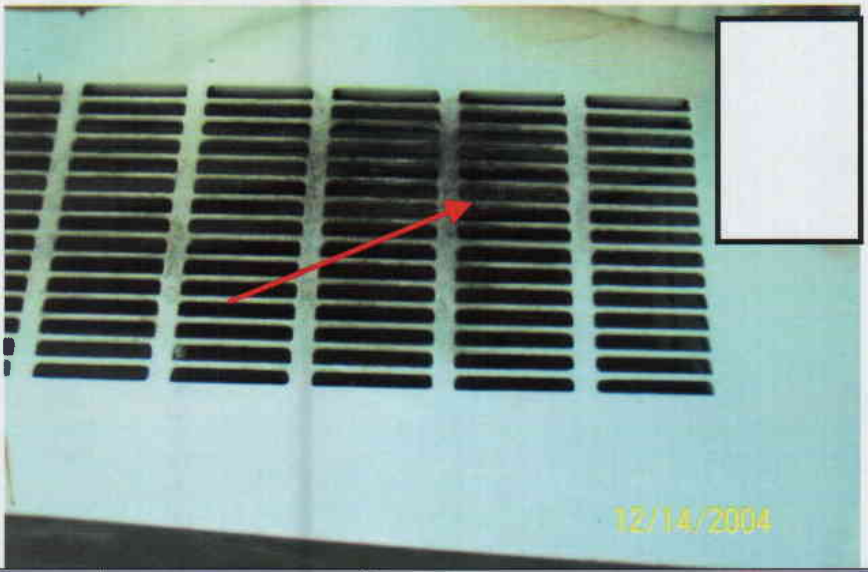


Photo No. 6	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-12.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 7	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-13.

Photo No. 8	View of air handling unit in 4th floor mechanical room.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 9	View of filters in 4th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

Photo No. 10	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-08.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 11	View of ceiling air diffuser located on 4th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 4th floor.

Photo No. 12	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-09.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 13	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-10.

Photo No. 14	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 15	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

Photo No. 16	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

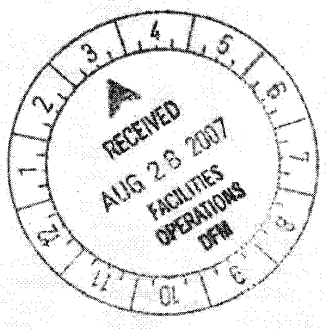
PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 17	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary

www.dol.ks.gov



August 9, 2007

Mr. Dan Balch
Department of Administration
Division of Facilities Management
Landon State Office Building
900 SW Jackson St. Room 653
Topeka, KS 66612

Inspection Number: 865708002

Mr. Balch:

On July 24, 2007, Helen Cook, Certified Industrial Hygienist and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an on-site inspection of your facilities to determine if possible unsafe or unhealthy working conditions might be present due to a specific complaint received in our department. This inspection was conducted under the authority granted the Secretary of Kansas Department of Labor by K.S.A. 44-636. A summary of findings follows on the Inspection Notice. We are pleased to report that no hazards were found as a result of the inspection.

It is our goal to continue to reduce the number of persons injured on the job in Kansas. With people like yourself assisting us, our attainment of that goal is made easier.

Again, thanks for your cooperation in this endeavor. If we may be of further assistance, please do not hesitate to contact this office.

Should you need any additional assistance or clarification regarding any of the enclosed findings, please contact this office or Helen Cook, Certified Industrial Hygienist, who visited your place of employment.

"You can obtain information about our upcoming Safety & Health Conference by going to our website at: www.dol.ks.gov, or by calling Dena Ackors at (785) 296-4386."

Sincerely,

Steve Zink, CSP
Director, Industrial Safety & Health

SZ: hc; bag
Enclosures: Health Inspection Report

INDUSTRIAL SAFETY AND HEALTH
800 S.W. Jackson Suite 1500, Topeka, KS 66612-1200 • phone (785) 296-4386 • fax (785) 296-1775

Kansas Department of Labor
Industrial Safety and Health Section

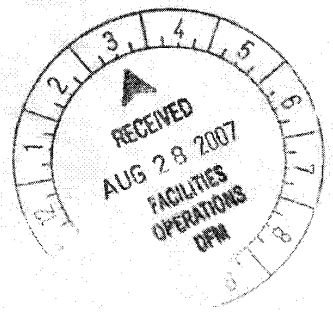
INDUSTRIAL SAFETY/HEALTH INSPECTION NOTICE

No recommendations are being made as a result of this complaint in facilities under your jurisdiction.

Docking Building **Inspection Number: 865708002**

Summary of Complaint:

Employees in the Docking State Office Building located at 915 SW Harrison St. in Topeka, KS were complaining of a solvent odor on the 5th floor due to a recent remodeling project. Employees were also complaining of headaches due to inhaling fumes from a welding project that was occurring in the sub-basement level of the building.



SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

Kansas Department of Labor
Industrial Safety and Health
800 SW Jackson, Suite 1500
Topeka, KS 66612-1200
Phone: 785-296-4386
FAX: 785-296-1775
www.dol.ks.gov

Inspection Number: 865708002

INDOOR AIR QUALITY ASSESSMENT REPORT

EXECUTIVE SUMMARY

This report provides the results of an Indoor Air Quality Health Inspection of the Docking State Office Building located 915 Harrison St. in Topeka, KS. On July 24, 2007 Helen Cook, Certified Industrial Hygienist, and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an indoor air quality inspection, in response to employee concerns relative to indoor air quality to determine if any unhealthy conditions were present relative to indoor air quality. The inspection consisted of a visual inspection and a review of material safety data sheets (MSDSs). At the time of the inspection the Kansas Department of Labor found no problem regarding indoor air quality at Docking State Office Building facility.

Visual Inspection

On July 24, 2007, the Kansas Department of Labor conducted a visual inspection of the Docking State Office Building due to a complaint regarding fume and solvent odors. The facility is located at 915 Harrison St., in Topeka, Kansas. Prior to the inspection, Ms. Betsy Gaydess, Industrial Hygiene Consultant Trainee and Helen Cook, Certified Industrial Hygienist met with Mr. Dan Balch, Facilities Operation Manager and Mr. Kevin Fulton, Public Service Administrator II, to discuss the nature of the complaint. It was learned that a contractor had been hired to perform welding and cutting work in the sub-basement area of the building. Employees were concerned with the odors associated with this work. Also, the old carpet of an area on the 5th floor of the building had been removed and the floor beneath had been stripped to remove the residual glue from the former carpet. Employees were concerned with the solvent odors associated with the floor stripping process.

The walkthrough of the building began in the sub-basement where the contractor was observed performing the cutting and welding work. The indoor atmosphere in this area was initially found to be smoky and hazy at the time of entrance. However, large fans were present in the work area and it was deemed that ventilation of the area was satisfactory for the type of work being performed. Also, it was noted that no State of Kansas employee was asked to work in the sub-basement for extended periods of time while the work was being performed. The sub-basement area is vented outside; these vents are located at the south side of the building and are protected by a large grate. Employees located near the south side of the building were complaining of headaches. Helen Cook recommended that carbon monoxide monitors be placed in the rooms of the south side of the building to ensure that employees are not being exposed to carbon monoxide being exhausted through these vents. The welding project was expected to be finished shortly.

Employees were concerned with welding and cutting fumes when walking through the hallway of the basement area. A walkthrough of this hallway was performed; no odor was noted at the time of the walkthrough.

An inspection of the 5th floor of the Docking Building was performed to investigate the complaint regarding the presence of solvent fumes. It was explained to the KDOL representatives that carpet had been removed from the 5th floor recently and that it had been necessary to strip the floor to remove the residual glue. Helen Cook and Betsy Gaydess were then provided with copies of the material safety data sheets (MSDSs) of the chemicals that were used to strip the floors. Helen Cook did not think a problem existed with the chemicals used in this process. The stripping process had been finished at the time of the inspection. It was deemed at that the time of the inspection, no problem concerning solvent fumes existed.

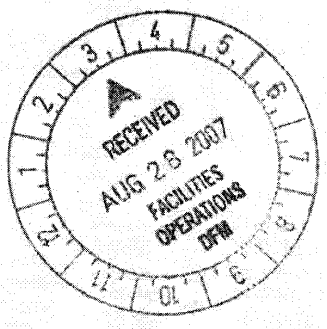
Conclusion

At the time this inspection was conducted, KDOL determined that no state employees were being exposed to harmful fumes from the welding process occurring in the sub-basement or harmful solvent vapors from the stripping process. However, KDOL does suggest the installation of carbon monoxide detectors in rooms in the south side of the Docking Building to ensure that employees are not being exposed to elevated levels of carbon monoxide due to the exhaust vent located directly outside of the windows at this location.

KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary

www.dol.ks.gov



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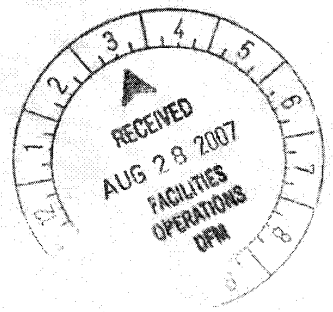

SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
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Submitted By:

Kansas Department of Labor
Industrial Safety and Health
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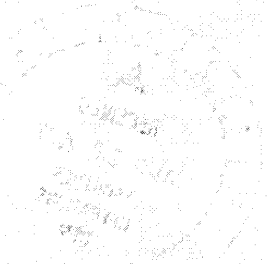

APEX ENVIRONMENTAL CONSULTANTS, INC.

4800 College Boulevard. • Overland Park, Kansas 66211 • (913) 338-2739 • FAX (913) 338-2741

FAX COVER SHEET

Wednesday, April 12, 2000

Project: Docking State Office Building
Environmental Fungi Testing

Project #: Proposal

To:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator

FAX No.: (785) 368-6307

From: Chris Frey

This transmittal consists of ~ 3 *pages, including this cover page. If you do not receive all pages, please notify our office.*

Notes:

Attached please find the proposal you requested for fungi testing services. Please review the proposal at your convenience and do not hesitate to call me if you have any questions. I'll be in a training class all day tomorrow, so the best way to reach me will be via cell phone at (913) 481-7373. If I don't answer right away, leave a message and I'll call you back during a break. Thanks Dennis!

APEX ENVIRONMENTAL CONSULTANTS, INC.

Rising to the Top

PHONE: (913) 338-APEX
(913) 338-2739
FAX: (913) 338-2741
E-MAIL: apex@4apex.com

April 12, 2000

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612-2210

VIA FAX: (785) 368-6307

RE: Environmental Fungi Sampling
Docking State Office Building
APEX Proposal #0044

Dear Mr. Buelt:

APEX Environmental Consultants, Inc. (APEX) is pleased to submit the following proposal for microbiological surface sampling in response to our conversation earlier today. It is understood that this work has been initiated at your request as a result of the presence of what appears to be visible fungal growth inside of the lined ductwork at Docking State Office Building.

The purpose of the investigation is to determine whether environmental fungi is growing inside of the ducts and/or air handling units. Bulk and/or tape lift samples will be collected from the visible fungal growth in an effort to verify the species of fungi. It is anticipated that approximately four (4) samples will be collected.

If, during the site investigation, it is determined that the substance inside of the HVAC systems is not fungal growth, APEX will make recommendations for appropriate sampling and analysis of the material(s). APEX will come prepared to perform such sampling, if determined necessary.

The cost for the aforementioned services will be a not-to-exceed fee of $600.00. Fees include all sampling time and materials, as well as an accompanying project report. This fee is pursuant to those listed in our on-call indefinite delivery contract with Division of Architectural Services.

APEX appreciates the opportunity to propose on this project. After your review of this proposal, if there are any questions, please feel free to contact me. If this proposal is

acceptable, please provide your written authorization in the space below. APEX will schedule fieldwork upon receipt of this signed proposal.

Respectfully submitted,
APEX Environmental Consultants, Inc.

Christopher S. Frey, CIE
Vice President

AGREED TO THIS _____ DAY OF _____, 2000

BY: _____.

TITLE: _____.

FIRM: _____.

KLEINFELDER
EXPECT MORE®

November 28, 2007

Mr. George Werth, Chief Engineer
State of Kansas Division of Facilities Management
900 SW Jackson Street, Room 600
Topeka, Kansas 66612-2210

RE: Air Quality Screening
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 78215, Task 12

Dear Mr. Werth:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne volatile organic chemicals (VOC's) in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On November 7, 8 and 13, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces and the south hallway.

Kleinfelder personnel established a limited sampling protocol for VOC's in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), and the hallway. Several areas of concern within the offices were sampled as areas of possible sources for indoor air quality (IAQ) contaminants. Those areas included: the southeast office suite (the southeast office suite is made up of the Directors office, cubicle spaces and a storage room, the following references to specific spaces are for general space indications), in Carmen's office, east side by air handler, near desk, near conference table, west wall, and inside the wall access hatch; the former storage room, Kelli's office, Lisa & Marty's office, Bonnie's office; hallway, pipe chase and drinking fountain drain. A photo-ionization detector (PID) was used to count the number of reactive chemical molecules in the air and record the quantity in calculated parts per million (PPM).

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

The instrument calculates and records in units of PPM, the average value of reactive gasses in the air and the peak value of any sampling period. The average value recorded for all of the sampling locations was 0.0 PPM. Several peak levels were recorded for known materials within some of the sample locations. See Table 1 – Air Sampling Results Summary.

Sampling Results

Air samples were collected and recorded in the instrument. Sample Numbers are generated by the instrument. The results are summarized below.

Table 1
Air Sampling Results Summary

Sample No.	Location	Average Count PPM	Peak value PPM	Known Material
87	Carmen's office, east side air unit	0.0	0.0	N/A
88	Carmen's desk	0.0	0.0	N/A
89	Conference table	0.0	24	Marker
90	Carmen's office, west wall	0.0	0.0	N/A
91	Break room	0.0	0.0	N/A
92	Marker	0.0	24.3	Marker
93	Break room floor	0.0	0.0	N/A
94	Store room / Kelli's office	0.0	54	Hand gel / nail polish
95	Lisa / Marty office	0.0	34	Lotion
96	Bonnie's office	0.0	0.0	N/A
97	Carmen's office p.m.	0.0	0.0	N/A
98	Carmen's office 11/13	0.0	0.0	N/A
99	South air handler	0.0	0.0	N/A
100	Marker	0.0	28	Marker
101	Carmen's office southwest corner	0.0	0.0	N/A
102	Lamp alarm	0.0	0.0	N/A
103	Hall pipe chase	0.0	0.0	N/A
104	Drinking fountain drain	0.0	0.0	N/A

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Findings

Based on instrument results of air samples for VOC counts, no unknown sources of VOC were identified. A few known sources of VOC were identified (hand gel, nail polish, lotions and markers), which is typically expected. The average level of VOC for the sampling time periods was 0.0 PPM.

The air sampling results indicate no evidence of unknown VOC in the office spaces of the 1st floor.

Based on interviews, the presence of an unknown/difficult to describe odor/sensation exists in the spaces observed.

The evidence compiled by this VOC screening, along with the results of previous mold sampling and other observations, does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our interviews, observations and testing results, we make the following recommendations:

- Thoroughly clean and disinfect the carpets and upholstery. We recommend steam extraction, followed by HEPA vacuuming after the carpet is completely dry.
- Use exceptional quality filters for the air in the spaces to collect any particulate material.
- Continue monitoring carbon monoxide and carbon dioxide levels. We recommend periodic twenty-four hour monitoring.

This VOC screening was conducted using a PID. The PID instrument samples the ambient air and ionizes any available molecules within a specific range of electro-photo ionization and records those ionization events. Other materials may be present that are beyond the ionization potential of the instrument. Those materials include, but are not limited to, particulates, simple gasses, (CO_2, CO, No_2, etc.) and inorganic chemicals.

If conditions persist after the recommended actions have been completed, additional assessment parameters may be discussed. We will be open to explore additional avenues of evaluation including possible dust identification, specific air analysis, general air analysis biological assessment or other parameters.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the air quality screening, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

KLEINFELDER
EXPECT MORE®

October 2, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria*, Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Pericoma / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Trichoderma								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien, Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #ST-RS-05.07 1/1LM

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	Sampling Method:	Air-O-Cell
Address:	1601 SW 41st Street	Analytical Method:	Spore Trap Analysis-102
	Topeka, KS 66609	CEI Lab Code:	107-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		Date Reported:	9/26/2007
Project Site:	KS Doc	Analyzed By:	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	5		6		7			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³
Alternaria	1	7	8	53				
Aethrotium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts, Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Trichoderma								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

No Mold Detected

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien, Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #S1RS 05 07 1/1LM

I07.0915 (7)
M20798-M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID#	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
99	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T M Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐	Explanation:

KLEINFELDER
EXPECT MORE®

November 30, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria,* Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Ulocladium								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

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Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #STRS.05.07.1/1LM

JCSBC
2-2-2016
<<Att.7.--129

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air-O-Cell
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	**I07-0915**
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	**5**		**6**		**7**			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces/Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Ulocladium								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.			**No Mold Detected**	
The Sample(s) in this report was/were received in acceptable condition.				

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #STRS.05.07.1/1LM

I07.0915 (7)
M20798.M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID #	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
11	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel Off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T V Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐	Explanation:

KLEINFELDER
An employee owned company

July 18, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
9th Floor Offices
Docking State Office Building
915 SW Harrison Street
Topeka, Kansas
Kleinfelder Project No. 59382 Task 1

Dear Mr. Balch:

Kleinfelder has completed the authorized limited mold air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of mold in the air in the above referenced offices.

Scope of Services

At the direction of DFM personnel, specific areas of the offices were observed and sampled. Observations of reported water-affected areas were conducted. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On July 7, 2005, in the company of DFM personnel, the affected rooms and spaces were observed. These rooms included the northeast corner office, east window spaces and west window spaces. Indications of colonial mold growth were not visually observed in the offices or spaces.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, the conference room (a presumed non-affected area), the hallway near the elevators and outdoors and sent to an accredited laboratory for analysis. (See Table 1 Sample Locations.) Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Findings and Conclusions

Active colonial growth of molds was not visually observed during the site reconnaissance. Air samples were collected and sent for accredited laboratory analysis. The laboratory report indicates that spores were analytically confirmed in all four (4) of the samples. The results are summarized below.

Table 1
Air Sample Locations

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
S 1	Northeast office / 150 L	*Alternaria*	2	2,214
		Ascospores	10	
		Basidiospores	150	
		Cladosporium	120	
		Other Colorless	2	
		Other Brown	1	
		Penicillium / Aspergillus	40	
		Smuts, *Myxomycetes, Periconia*	4	
		Other	3	
S 2	East center cubicles, east window / 210 L	*Alternaria*	0	726
		Ascospores	6	
		Basidiospores	72	
		Cladosporium	60	
		Other Colorless	1	
		Other Brown	0	
		Penicillium / Aspergillus	10	
		Smuts, *Myxomycetes, Periconia*	2	
		Other	1	
S 3	West center cubicles, west window / 150 L	*Alternaria*	1	461
		Ascospores	0	
		Basidiospores	52	
		Cladosporium	10	
		Other Colorless	1	
		Other Brown	2	
		Penicillium / Aspergillus	2	
		Smuts, *Myxomycetes, Periconia*	1	

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Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
S 4	Conference room / 150 L	*Alternaria*	1	449
		Ascospores	4	
		Basidiospores	34	
		Cladosporium	16	
		Other Colorless	1	
		Other Brown	3	
		Penicillium / Aspergillus	4	
		Smuts, *Myxomycetes, Periconia*	3	
		Other	1	
S 5	Hallway, near elevator / 150 L	*Basidiospores*	8	67
		Cladosporium	1	
		Penicillium / Aspergillus	1	
S 6	Outdoors / 180 L	*Alternaria*	168	19,446
		Ascospores	140	
		Basidiospores	700	
		Bipolaris / Drechslera	10	
		Cladosporium	2,100	
		Epicoccum	28	
		Fusarium	4	
		Nigrospora	1	
		Other Colorless	8	
		Other Brown	4	
		Penicillium / Aspergillus	84	
		Rusts	2	
		Smuts, *Myxomyctets, Periconia*	196	
		Stemphylium	1	
		Torula	6	
		Other	48	

Penicillium / Aspergillus, are related genera that cannot be reliably distinguished from each other by spore type alone.

The laboratory report is included in Appendix A. The results indicate no evidence of mold spore bioamplification. The spore counts in the samples obtained within the building were markedly lower than the outdoor counts indicating satisfactory performance of the HVAC system.

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Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Based on the test results, the source(s) contributing to the reported questionable indoor air quality does not appear to be fungal spores. Although operation and maintenance procedures should continue to prevent and control moisture intrusion which can potentially lead to mold growth, evidence of mold spore bioamplification was not identified at the time of this sampling event.

The conclusions presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, expressed or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully Submitted

KLEINFELDER

For

Thomas W. Brennan
Industrial Hygiene Technician

Rowley R. Tedlock
Environmental Services Manager

Attachment

TWB/RRT:kr

cc: Kevin Fulton, Resource Management Office Services

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
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(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

July 13, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L205742-01	L205742-02	L205742-03	L205742-04
Client Sample Id:	S1	S2	S3	S4
Location:	S1	S2	S3	S4
Project # :	DFM D #9	DFM D #9	DFM D #9	DFM D #9
Collect Date:	07/07/05	07/07/05	07/07/05	07/07/05
Receive Date:	07/08/05	07/08/05	07/08/05	07/08/05
Analyzed Date:	07/13/05	07/13/05	07/13/05	07/13/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		210		150		150	
Background Debris*	Moderate		Moderate		Moderate		Moderate	
Limit of Detection (spores)	<2		<2		<2		<1	
Alternaria	2	13			1	7	1	7
Ascospores	10	67	6	29			4	27
Aureobasidium								
Basidiospores	150	1,000	72	343	52	347	34	227
Bipolaris/Drechslera								
Botrytis								
Chaetomium								
Cladosporium	120	800	60	286	10	67	16	107
Curvularia								
Epicoccum								
Fusarium								
Nigrospora								
Other Colorless	2	13	1	5	1	7	1	7
Other Brown	1	7			2	13	3	20
Penicillium/Aspergillus	40	267	10	48	2	13	4	27
Rusts								
Smuts,Myxomycetes,Periconia	4	27	2	10	1	7	3	20
Stachybotrys chartarum								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Other:								
Cercospora	2	13						
Pithomyces	1	7						
Scopulariopsis			1	5				
Zygophiala							1	7
Polythrincium								
Arthrinium								
Total Spores/m3		2,214		726		461		449

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

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Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

July 13, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L205742-05	L205742-06	L205742-07
Client Sample Id:	S5	S6	S7
Location:	S5	S6	BLANK
Project # :	DFM D #9	DFM D #9	DFM D #9
Collect Date:	07/07/05	07/07/05	07/07/05
Receive Date:	07/08/05	07/08/05	07/08/05
Analyzed Date:	07/13/05	07/13/05	07/13/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		180		Not applic	
Background Debris*	Moderate		Heavy		N/A	
Limit of Detection (spores)	<1		<4		<1	
Alternaria			168	933		
Ascospores			140	778		
Aureobasidium						
Basidiospores	8	53	700	3,889		
Bipolaris/Drechslera			10	56		
Botrytis						
Chaetomium						
Cladosporium	1	7	2100	11,667		
Curvularia						
Epicoccum			28	156		
Fusarium			4	22		
Nigrospora			1	6		
Other Colorless			8	44		
Other Brown			4	22		
Penicillium/Aspergillus	1	7	84	467		
Rusts			2	11		
Smuts,Myxomycetes,Periconia			196	1,089		
Stachybotrys chartarum						
Stemphylium			1	6		
Torula			6	33		
Ulocladium						
Zygomycetes						
Other:						
Cercospora			42	233		
Pithomyces						
Scopulariopsis			2	11		
Zygophiala						
Polythrincium			1	6		
Arthrinium			3	17		
Total Spores/m3		67		19,446		

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

Summary of Remarks For Samples Printed
07/13/05 at 17:12:01

TSR Signing Reports: 051
R4 - Required TAT

Sample: L205742-01 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-02 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-03 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-04 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-05 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-06 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-07 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

KLEINFELDER
An employee owned company

October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
11th Floor Offices
Docking State Office Building
915 SW Harrison Street
Topeka, Kansas
Kleinfelder Project No. 59382 Task 3

Dear Mr. Balch:

Kleinfelder has completed the authorized limited mold air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of mold in the air in the above referenced offices.

Scope of Services

At the direction of DFM personnel, specific areas of the offices were observed and sampled. Observations of reported water-affected areas were conducted. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On October 6, 2005, in the company of DFM personnel, the affected rooms and spaces were observed. These rooms included the south office area, Lisa's office, Jill P. cubicle, classroom, and outdoors. Indications of colonial mold growth were not visually observed in the offices or spaces.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, the classroom (a presumed non-affected area), and outdoors and sent to an accredited laboratory for analysis. (See Table 1 Sample Locations) Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

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Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 3

Findings and Conclusions

Active colonial growth of molds was not visually observed during the site reconnaissance. Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all five (5) of the samples. The results are summarized below.

Table 1
Air Sample Locations

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
1	South office near copier / 150 L	*Alternaria* *Basidiospores* *Cladosporium* *Epicoccum* *Penicillium / Aspergillus*	1 4 3 1 1	68
2	Lisa's office / 210 L	*Basidiospores* *Cladosporium* Rusts Smuts, *Myxomycetes, Periconia*	1 10 2 1	94
3	Jill P. cubicle / 150 L	*Basidiospores* *Cladosporium* Smuts, *Myxomycetes, Periconia*	6 4 8	120
4	Classroom/ 150 L	*Alternaria* *Basidiospores* *Cladosporium* *Penicillium / Aspergillus* Rusts Smuts, *Myxomycetes, Periconia*	1 2 1 12 2 1	127
5	Outdoors / 180 L	*Alternaria* *Ascospores* *Basidiospores* *Bipolaris / Drechslera* *Cladosporium* *Curvularia*	32 24 96 4 640 1	6,826

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		Epicoccum	8	
		Fusarium	2	
		Nigrospora	2	
		Other Colorless	32	
		Other Brown	2	
		Penicillium / Aspergillus	48	
		Rusts	5	
		Smuts, *Myxomyctets, Periconia*	112	
		Torula	2	
		Other	14	

Penicillium / Aspergillus, are related genera that cannot be reliably distinguished from each other by spore type alone.

The laboratory report is included in Appendix A. The results indicate no evidence of mold spore bioamplification. The spore counts in the samples obtained within the building were markedly lower than the outdoor counts indicating satisfactory performance of the HVAC system.

Based on the test results, the source(s) contributing to the reported questionable indoor air quality does not appear to be fungal spores. Although operation and maintenance procedures should continue to prevent and control moisture intrusion which can potentially lead to mold growth, evidence of mold spore bioamplification was not identified at the time of this sampling event.

The conclusions presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, expressed or implied, is intended or made.

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Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 3

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Industrial Hygiene Technician

Rowley R. Tedlock
Environmental Services Manager

Attachment

TWB/RRT:kr

cc: Kevin Fulton, Resource Management Office Services

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

ENVIRONMENTAL SCIENCE CORP.

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Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

October 12, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L217962-01	L217962-02	L217962-03	L217962-04
Client Sample Id:	1	2	3	4
Location:	S End Near Copy	Lisa Office	Jill P Cube	Classroom
Project # :	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11
Collect Date:	10/06/05	10/06/05	10/06/05	10/06/05
Receive Date:	10/10/05	10/10/05	10/10/05	10/10/05
Analyzed Date:	10/12/05	10/12/05	10/12/05	10/12/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		150		150		150	
Background Debris*	Light		Light		Moderate		Light	
Limit of Detection (spores)	<1		<1		<1		<1	
Alternaria	1	7					1	7
Ascospores								
Aureobasidium								
Basidiospores	4	27	1	7	6	40	2	13
Bipolaris/Drechslera								
Botrytis								
Chaetomium								
Cladosporium	3	20	10	67	4	27	1	7
Curvularia								
Epicoccum	1	7						
Fusarium								
Nigrospora								
Other Colorless								
Other Brown								
Penicillium/Aspergillus	1	7					12	80
Rusts			2	13			2	13
Smuts,Myxomycetes,Periconia			1	7	8	53	1	7
Stachybotrys chartarum								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Other:								
Pithomyces								
Cercospora								
Scopulariopsis								
Oidium								
Total Spores/m3		68		94		120		127

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

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Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

October 12, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L217962-05	L217962-06
Client Sample Id:	5	BLANK
Location:	Outdoors	Blank
Project # :	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11
Collect Date:	10/06/05	10/06/05
Receive Date:	10/10/05	10/10/05
Analyzed Date:	10/12/05	10/12/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		Not applic	
Background Debris*	Heavy		N/A	
Limit of Detection (spores)	<4		<1	
Alternaria	32	213		
Ascospores	24	160		
Aureobasidium				
Basidiospores	96	640		
Bipolaris/Drechslera	4	27		
Botrytis				
Chaetomium				
Cladosporium	640	4,267		
Curvularia	1	7		
Epicoccum	8	53		
Fusarium	2	13		
Nigrospora	2	13		
Other Colorless	32	213		
Other Brown	2	13		
Penicillium/Aspergillus	48	320		
Rusts	5	33		
Smuts,Myxomycetes,Periconia	112	747		
Stachybotrys chartarum				
Stemphylium				
Torula	2	13		
Ulocladium				
Zygomycetes				
Other:				
Pithomyces	2	13		
Cercospora	10	67		
Scopulariopsis	1	7		
Oidium	1	7		
Total Spores/m3		6,826		

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

Company Name/Address: Kleinfelder Topeka

Alternate billing information:

Mail to:

Email to:

Project Description: Docking Bld. 11TH Floor

Phone:

FAX:

Client Project #: 59382 - T3

Collected by (print):

P.O.#:

Collected by (signature): T Brennan

Rush? (Lab MUST Be Notified)
____ Same Day. . . . . 2 X
____ Next Day. . . . . 1.75 X
____ Two Day . . . . . 1.5 X

Date Results Needed:

Email? __No X Yes

FAX? __No__Yes

Analysis Requested

Sample ID	Sample Description	Type *	Volume or Area	Date	Time	SPORE TRAP	DIRECT EXAM	QUANTITATIVE FUNGAL	CULTURABLE AIR FUNGI (ANDERSEN)	QUANTITATIVE BACTERIA	CULTURABLE AIR BACTERIA	E. COLI / COLIFORM (presence/absence)	ENTEROCOCCUS (presence/absence)	Remarks/	Sample # (lab only)
1	S. End, Near Copier	ST	150L	10/6		X									217982-01
2	Lisa's Office	ST	150			X									02
3	Jill P. Cube	ST	150			X									03
4	Classroom	ST	150			X									04
5	Outdoors	ST	150			X									05
Blank		ST	—			X									06

Chain of Custody Page ___ of ___

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

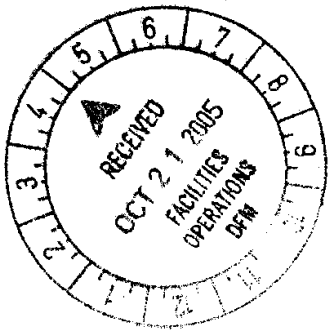
CoCode: (lab use only)
Template/Prelogin
Shipped Via:

*Type = **Tape** - Tapelift , **Bulk** - Bulk , **Swab** - Swab , **CP** - Contact Plate , **SS** - Soil, **W** - Water , **ST** - Spore Trap : Allergenco, Zefon, (Air -O -Cell), **AF** - Andersen Fungal , **AB** - Andersen Bacterial

Comments: 8502 7552 1057

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: (lab use only)
T Brennan	10/7	12:00			
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Temp: Amb	Containers Received: 6
Relinquished by (Signature)	Date:	Time:	Received for lab by (Signature)	Date: 10/10/05	Time: 9:00
				pH Checked:	NCF:

KLEINFELDER
An employee owned company



October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Mold Testing and Site Observations
Docking State Office Building
11th Floor - South
Topeka, Kansas
Proposal No TEV05073

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited mold testing services and site observations at the above referenced location in Topeka, Kansas. We understand that suspect mold has been reported in the office spaces, and observed on piping located in mechanical areas of the building, and sampling of the air is requested. In addition, observations of the site are requested in order to assess the origin of the moisture intrusions.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Based on experience and preliminary observations of the spaces involved, we anticipate five (5) air samples would be collected: three (3) in the effected areas, one (1) in a non-effected area, and one (1) outdoors.

B. Provide a Senior Staff Professional to observe the site.

C. Provide a written report documenting the findings and conclusions of the Mold testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L: 2005\Proposals\TOP5P315

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Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

The estimated fees for the services are itemized as follows:

Project Professional II	$ 750.00
Air Monitoring for Mold (Analytical)	$ 400.00
Summary Report	$ 500.00
Estimated Fee	$ 1,650.00

The estimated fee includes collection and analysis of up to five (5) mold air samples. Additional required samples, approved by you, will be billed at a rate of $35.00/sample for surface collection and analysis, $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the signature blocks below and return a copy to our Topeka office to provide notice-to-proceed.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager

Rowley R. Tedlock
Environmental Services Manager

TWB:RT/kr

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: Dan Galeb (Print name of individual) FOR: Division of Facilities Management (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

D. KEITH MEYERS, DIRECTOR

K A N S A S

DEPARTMENT OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT

KATHLEEN SEBELIUS, GOVERNOR
DUANE A. GOOSSEN, SECRETARY
CAROL L. FOREMAN, DEPUTY SECRETARY

FAX TRANSMITTAL

TO: Thomas W Brennan
Kleinfelder

FAX NO.: (785) 267-7145

FROM: Dan Balch

DATE: October 24, 2005

PAGES: __4___ (Total pages including transmittal cover sheet)

SUBJECT: Proposal No TEV05073

COMMENT:

LANDON STATE OFFICE BUILDING, 900 SW JACKSON ST., STE. 653, TOPEKA, KS 66612-2210
Voice 785-296-8070 Fax 785-296-3456 http://da.state.ks.us/fm

TRANSMISSION VERIFICATION REPORT

TIME : 10/24/2005 11:46
NAME : DIV FACILITIES MNGT
FAX : 7852963456
TEL :
SER.# : BROH4J825065

DATE,TIME	10/24 11:45
FAX NO./NAME	92677145
DURATION	00:00:38
PAGE(S)	04
RESULT	OK
MODE	STANDARD ECM

KLEINFELDER
An employee owned company

January 4, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Abatement Oversight & Clearance Sampling
Kansas Statehouse / Docking Building Tunnel
Topeka, Kansas
Proposal No TEV07001

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited abatement oversight and clearance air sampling assessment services at the above referenced location in Topeka, Kansas. We understand that 9-inch by 9-inch floor tile and mastic is scheduled for removal and project oversight, perimeter air sampling, and clearance sampling of the air is requested. In addition, observations of the site are requested.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Pre-work walk-through.

B. Provide perimeter barrier air monitoring outside the work area.

C. Provide clearance air monitoring at the conclusion of the scheduled work.

D. Provide a Senior Staff Professional to observe the site.

E. Provide a written report documenting the findings and conclusions of the Air Quality testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L:2007\Proposals\TOP7P003

The estimated fees for the services are itemized as follows:

Project Professional II	$ 1,400.00
Air Monitoring (Analytical)	$ 400.00
Summary Report	$ 1,000.00
Estimated Fee	$ 2,800.00

The estimated fee includes collection and analysis of up to fifteen (15) air samples. Additional required samples, approved by you, will be billed at a rate of $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the attached notice-to-proceed and return a copy to our Topeka office.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager
TWB:FDA/kr

Franky D. Arnwine, R.G.
Environmental Group Manager

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: _____ FOR: _____
(Print name of individual) (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

L:2007\Proposals\TOP7P003

KLEINFELDER
EXPECT MORE®

November 30, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

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Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria,* Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

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Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Ulocladium								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #STRS.05.07.1/1LM

JCSBC
2-2-2016
<<Att.7.--157

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air-O-Cell
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	**I07-0915**
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	**5**		**6**		**7**			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces/Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Ulocladium								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.			**No Mold Detected**	
The Sample(s) in this report was/were received in acceptable condition.				

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #STRS.05.07.1/1LM

I07.0915 (7)
M20798.M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID #	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
11	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel Off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T V Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐	Explanation:

KLEINFELDER
EXPECT MORE®

November 28, 2007

Mr. George Werth, Chief Engineer
State of Kansas Division of Facilities Management
900 SW Jackson Street, Room 600
Topeka, Kansas 66612-2210

RE: Air Quality Screening
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 78215, Task 12

Dear Mr. Werth:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne volatile organic chemicals (VOC's) in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On November 7, 8 and 13, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces and the south hallway.

Kleinfelder personnel established a limited sampling protocol for VOC's in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), and the hallway. Several areas of concern within the offices were sampled as areas of possible sources for indoor air quality (IAQ) contaminants. Those areas included: the southeast office suite (the southeast office suite is made up of the Directors office, cubicle spaces and a storage room, the following references to specific spaces are for general space indications), in Carmen's office, east side by air handler, near desk, near conference table, west wall, and inside the wall access hatch; the former storage room, Kelli's office, Lisa & Marty's office, Bonnie's office; hallway, pipe chase and drinking fountain drain. A photo-ionization detector (PID) was used to count the number of reactive chemical molecules in the air and record the quantity in calculated parts per million (PPM).

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

The instrument calculates and records in units of PPM, the average value of reactive gasses in the air and the peak value of any sampling period. The average value recorded for all of the sampling locations was 0.0 PPM. Several peak levels were recorded for known materials within some of the sample locations. See Table 1 – Air Sampling Results Summary.

Sampling Results

Air samples were collected and recorded in the instrument. Sample Numbers are generated by the instrument. The results are summarized below.

Table 1
Air Sampling Results Summary

Sample No.	Location	Average Count PPM	Peak value PPM	Known Material
87	Carmen's office, east side air unit	0.0	0.0	N/A
88	Carmen's desk	0.0	0.0	N/A
89	Conference table	0.0	24	Marker
90	Carmen's office, west wall	0.0	0.0	N/A
91	Break room	0.0	0.0	N/A
92	Marker	0.0	24.3	Marker
93	Break room floor	0.0	0.0	N/A
94	Store room / Kelli's office	0.0	54	Hand gel / nail polish
95	Lisa / Marty office	0.0	34	Lotion
96	Bonnie's office	0.0	0.0	N/A
97	Carmen's office p.m.	0.0	0.0	N/A
98	Carmen's office 11/13	0.0	0.0	N/A
99	South air handler	0.0	0.0	N/A
100	Marker	0.0	28	Marker
101	Carmen's office southwest corner	0.0	0.0	N/A
102	Lamp alarm	0.0	0.0	N/A
103	Hall pipe chase	0.0	0.0	N/A
104	Drinking fountain drain	0.0	0.0	N/A

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Findings

Based on instrument results of air samples for VOC counts, no unknown sources of VOC were identified. A few known sources of VOC were identified (hand gel, nail polish, lotions and markers), which is typically expected. The average level of VOC for the sampling time periods was 0.0 PPM.

The air sampling results indicate no evidence of unknown VOC in the office spaces of the 1st floor.

Based on interviews, the presence of an unknown/difficult to describe odor/sensation exists in the spaces observed.

The evidence compiled by this VOC screening, along with the results of previous mold sampling and other observations, does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our interviews, observations and testing results, we make the following recommendations:

- Thoroughly clean and disinfect the carpets and upholstery. We recommend steam extraction, followed by HEPA vacuuming after the carpet is completely dry.
- Use exceptional quality filters for the air in the spaces to collect any particulate material.
- Continue monitoring carbon monoxide and carbon dioxide levels. We recommend periodic twenty-four hour monitoring.

This VOC screening was conducted using a PID. The PID instrument samples the ambient air and ionizes any available molecules within a specific range of electro-photo ionization and records those ionization events. Other materials may be present that are beyond the ionization potential of the instrument. Those materials include, but are not limited to, particulates, simple gasses, (CO_2, CO, No_2, etc.) and inorganic chemicals.

If conditions persist after the recommended actions have been completed, additional assessment parameters may be discussed. We will be open to explore additional avenues of evaluation including possible dust identification, specific air analysis, general air analysis biological assessment or other parameters.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the air quality screening, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary

www.dol.ks.gov

August 9, 2007

Mr. Dan Balch
Department of Administration
Division of Facilities Management
Landon State Office Building
900 SW Jackson St. Room 653
Topeka, KS 66612

Inspection Number: 865708002

Mr. Balch:

On July 24, 2007, Helen Cook, Certified Industrial Hygienist and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an on-site inspection of your facilities to determine if possible unsafe or unhealthy working conditions might be present due to a specific complaint received in our department. This inspection was conducted under the authority granted the Secretary of Kansas Department of Labor by K.S.A. 44-636. A summary of findings follows on the Inspection Notice. We are pleased to report that no hazards were found as a result of the inspection.

It is our goal to continue to reduce the number of persons injured on the job in Kansas. With people like yourself assisting us, our attainment of that goal is made easier.

Again, thanks for your cooperation in this endeavor. If we may be of further assistance, please do not hesitate to contact this office.

Should you need any additional assistance or clarification regarding any of the enclosed findings, please contact this office or Helen Cook, Certified Industrial Hygienist, who visited your place of employment.

"You can obtain information about our upcoming Safety & Health Conference by going to our website at: www.dol.ks.gov, or by calling Dena Ackors at (785) 296-4386."

Sincerely,

/

Steve Zink, CSP
Director, Industrial Safety & Health

SZ: hc; bag
Enclosures: Health Inspection Report

INDUSTRIAL SAFETY AND HEALTH
800 S.W. Jackson Suite 1500, Topeka, KS 66612-1200 • phone (785) 296-4386 • fax (785) 296-1775

Kansas Department of Labor
Industrial Safety and Health Section

INDUSTRIAL SAFETY/HEALTH INSPECTION NOTICE

No recommendations are being made as a result of this complaint in facilities under your jurisdiction.

Docking Building **Inspection Number: 865708002**

Summary of Complaint:

Employees in the Docking State Office Building located at 915 SW Harrison St. in Topeka, KS were complaining of a solvent odor on the 5th floor due to a recent remodeling project. Employees were also complaining of headaches due to inhaling fumes from a welding project that was occurring in the sub-basement level of the building.

SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

Kansas Department of Labor
Industrial Safety and Health
800 SW Jackson, Suite 1500
Topeka, KS 66612-1200
Phone: 785-296-4386
FAX: 785-296-1775
www.dol.ks.gov

Inspection Number: 865708002

INDOOR AIR QUALITY ASSESSMENT REPORT

EXECUTIVE SUMMARY

This report provides the results of an Indoor Air Quality Health Inspection of the Docking State Office Building located 915 Harrison St. in Topeka, KS. On July 24, 2007 Helen Cook, Certified Industrial Hygienist, and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an indoor air quality inspection, in response to employee concerns relative to indoor air quality to determine if any unhealthy conditions were present relative to indoor air quality. The inspection consisted of a visual inspection and a review of material safety data sheets (MSDSs). At the time of the inspection the Kansas Department of Labor found no problem regarding indoor air quality at Docking State Office Building facility.

Visual Inspection

On July 24, 2007, the Kansas Department of Labor conducted a visual inspection of the Docking State Office Building due to a complaint regarding fume and solvent odors. The facility is located at 915 Harrison St., in Topeka, Kansas. Prior to the inspection, Ms. Betsy Gaydess, Industrial Hygiene Consultant Trainee and Helen Cook, Certified Industrial Hygienist met with Mr. Dan Balch, Facilities Operation Manager and Mr. Kevin Fulton, Public Service Administrator II, to discuss the nature of the complaint. It was learned that a contractor had been hired to perform welding and cutting work in the sub-basement area of the building. Employees were concerned with the odors associated with this work. Also, the old carpet of an area on the 5th floor of the building had been removed and the floor beneath had been stripped to remove the residual glue from the former carpet. Employees were concerned with the solvent odors associated with the floor stripping process.

The walkthrough of the building began in the sub-basement where the contractor was observed performing the cutting and welding work. The indoor atmosphere in this area was initially found to be smoky and hazy at the time of entrance. However, large fans were present in the work area and it was deemed that ventilation of the area was satisfactory for the type of work being performed. Also, it was noted that no State of Kansas employee was asked to work in the sub-basement for extended periods of time while the work was being performed. The sub-basement area is vented outside; these vents are located at the south side of the building and are protected by a large grate. Employees located near the south side of the building were complaining of headaches. Helen Cook recommended that carbon monoxide monitors be placed in the rooms of the south side of the building to ensure that employees are not being exposed to carbon monoxide being exhausted through these vents. The welding project was expected to be finished shortly.

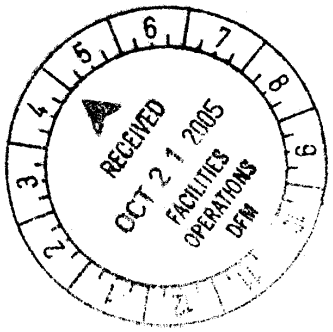
Employees were concerned with welding and cutting fumes when walking through the hallway of the basement area. A walkthrough of this hallway was performed; no odor was noted at the time of the walkthrough.

An inspection of the 5th floor of the Docking Building was performed to investigate the complaint regarding the presence of solvent fumes. It was explained to the KDOL representatives that carpet had been removed from the 5th floor recently and that it had been necessary to strip the floor to remove the residual glue. Helen Cook and Betsy Gaydess were then provided with copies of the material safety data sheets (MSDSs) of the chemicals that were used to strip the floors. Helen Cook did not think a problem existed with the chemicals used in this process. The stripping process had been finished at the time of the inspection. It was deemed at that the time of the inspection, no problem concerning solvent fumes existed.

Conclusion

At the time this inspection was conducted, KDOL determined that no state employees were being exposed to harmful fumes from the welding process occurring in the sub-basement or harmful solvent vapors from the stripping process. However, KDOL does suggest the installation of carbon monoxide detectors in rooms in the south side of the Docking Building to ensure that employees are not being exposed to elevated levels of carbon monoxide due to the exhaust vent located directly outside of the windows at this location.

KLEINFELDER
An employee owned company



October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Mold Testing and Site Observations
Docking State Office Building
11th Floor - South
Topeka, Kansas
Proposal No TEV05073

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited mold testing services and site observations at the above referenced location in Topeka, Kansas. We understand that suspect mold has been reported in the office spaces, and observed on piping located in mechanical areas of the building, and sampling of the air is requested. In addition, observations of the site are requested in order to assess the origin of the moisture intrusions.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Based on experience and preliminary observations of the spaces involved, we anticipate five (5) air samples would be collected: three (3) in the effected areas, one (1) in a non-effected area, and one (1) outdoors.

B. Provide a Senior Staff Professional to observe the site.

C. Provide a written report documenting the findings and conclusions of the Mold testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L: 2005\Proposals\TOP5P315

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

The estimated fees for the services are itemized as follows:

Project Professional II	$ 750.00
Air Monitoring for Mold (Analytical)	$ 400.00
Summary Report	$ 500.00
Estimated Fee	$ 1,650.00

The estimated fee includes collection and analysis of up to five (5) mold air samples. Additional required samples, approved by you, will be billed at a rate of $35.00/sample for surface collection and analysis, $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the signature blocks below and return a copy to our Topeka office to provide notice-to-proceed.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager

Rowley R. Tedlock
Environmental Services Manager

TWB:RT/kr

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: Dan Zalch (Print name of individual) FOR: Division of Facilities Management (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

LIMITED INDOOR AIR QUALITY SAMPLING SERVICES

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING – 4TH AND 10TH FLOORS
TOPEKA, KANSAS

PREPARED FOR:

MR. DENNIS BUELT
CAPITOL COMPLEX SAFETY COORDINATOR
KANSAS DIVISION OF FACILITIES MANAGEMENT
LANDON STATE OFFICE BUILDING
900 SW JACKSON STREET, ROOM 653
TOPEKA, KANSAS 66612-2210

PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.
8600 W. 110TH STREET, SUITE 120
OVERLAND PARK, KANSAS 66210
TEL: (913) 338-APEX FAX: (913) 338-2741
WWW.4APEX.COM

CLIENT:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612

PROJECT:

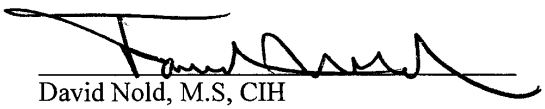
Limited Indoor Air Quality Sampling Services
Docking State Office Building – 4th and 10th Floors
Topeka, Kansas

APEX Project No.40588I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:



David Nold, M.S, CIH
Certified Industrial Hygienist

Address: 8600 W. 110th Street, Suite 120
Overland Park, Kansas 66210
Tel: (913) 338-2739 Fax: (913) 338-2741
e-mail: dnold@4apex.com

1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fourth and tenth floors of the Docking State Office Building on December 14, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually inspect the two floors for visible fungal contamination, and to conduct limited air quality sampling in each prospective area. It is understood that this work was initiated as a result of employee concerns regarding discoloration on the top of some of the convector units. David Nold, of APEX, conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, visible fungal contamination was observed on many of the diffuser grills located on convector units throughout the fourth and tenth floors (see Appendix B, Photo Log). The quantity of contamination ranged from light spotty growth on some of the units, to twenty square inches of light growth on other units. Laboratory results indicate that the visible fungal growth consists of species of Cladosporium, a ubiquitous and common type of fungi observed in the outdoor environment. Cladosporium is most often the predominate airborne species observed in the outdoor environment and is not considered a "toxic mold". However, Cladosporium is considered an allergen.

The main air handling system for the both the fourth and tenth floors was also inspected with no indication of abnormal conditions. The filters appeared to be in good condition and free of excessive dust and/or debris. Additionally, the ceiling diffuser vents associated with the main air handling systems appeared to be relatively clean.

Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology on the fourth and tenth floors of the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at lower concentrations. In other words, it does not appear that the visible fungal growth observed on the convector units is adversely affecting the air quality in the building.

3.0 SAMPLING METHODOLOGY

Seven (7) bioaerosol samples were obtained, including one (1) exterior control sample during the sampling effort. Representative sampling locations were chosen throughout the fourth and tenth floors, as well as an outdoor sample for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of October 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-01	4th floor, north	Zefon	15 L/min – 5 min
Z-02	4th floor, center	Zefon	15 L/min – 5 min
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min
Z-04	10th floor, north	Zefon	15 L/min – 5 min
Z-05	10th floor, center	Zefon	15 L/min – 5 min
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min
Z-07	Exterior Control	Zefon	15 L/min – 5 min

In addition to the bioaerosol samples, six (6) tape lift samples were collected in selected areas exhibiting suspect visible fungal amplification. The tape samples were mounted on clear glass slides, sealed in clean centrifuge tubes, and labeled with an identification number. The surface samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE
T-08	4th floor, east wall, ventilator diffuser	Tape
T-09	4th floor, south wall, ventilator diffuser	Tape
T-10	4th floor, west wall, ventilator diffuser	Tape
T-11	10th floor, east wall, ventilator diffuser	Tape
T-12	10th floor, south wall, ventilator diffuser	Tape
T-13	10th floor, west wall, ventilator diffuser	Tape
T = Tape		

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Diego, California for preparation, incubation, microscopic identification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M^3)	% OF OUTSIDE AIR (CONTROL)
Z-01	4th floor, north	66	19.9%
Z-02	4th floor, center	66	19.9%
Z-03	4th floor, south (Rebecca's Office)	66	19.9%
Z-04	10th floor, north	13	3.9%
Z-05	10th floor, center	13	3.9%
Z-06	10th floor , south (Receivables)	79	23.8%
Z-07	Exterior Control	332	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
T-08	4th floor, east wall, ventilator diffuser	Cladosporium 4+
T-09	4th floor, south wall, ventilator diffuser	Cladosporium 3+
T-10	4th floor, west wall, ventilator diffuser	Cladosporium 3+
T-11	10th floor, east wall, ventilator diffuser	Cladosporium 3+
T-12	10th floor, south wall, ventilator diffuser	Cladosporium 2+
T-13	10th floor, west wall, ventilator diffuser	Cladosporium 2+

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

The building was occupied under normal operating conditions at the time of sampling. Outdoor weather conditions were overcast and raining with a temperature in the mid 30's (degrees Fahrenheit).

Light fungal growth was identified on top of some of the convector units that run along the perimeter walls on both the fourth and tenth floors (see Appendix B, Photo Log). Surface sampling indicates this fungal growth consists of species of Cladosporium. Cladosporium is a ubiquitous type of fungi commonly observed in the outdoor environment and is not considered to be a "toxic mold". Furthermore, based on the

bioaerosol sampling performed, the fungal growth observed on the convector units does not appear to be adversely affecting the air quality. No evidence of abnormal airborne fungal ecology was observed on either the fourth or tenth floors. Nevertheless, fungal growth should not be allowed to grow and amplify in the indoor environment.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, light fungal growth was observed on top of some of the convector units located along the perimeter walls on the fourth and tenth floors of the building. However, based on the air sampling performed, no evidence of abnormal airborne fungal ecology was observed in the affected areas.

Due to the light fungal growth on the top of the convector units, APEX recommends that the units be cleaned in accordance with NADCA standards. Future cleaning of these units should be performed on the current quarterly maintenance schedule.

8.0 CONDITIONS AND LIMITATIONS

Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection

with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS

APEX Environmental Consultants, Inc.

8600 W. 110th Street • Overland Park, KS 66210 • (913) 338-2739 • FAX (913) 338-2741

Sample Chain of Custody

Sample Date: December 14, 2004 **Page:** 1 of 1

Project Name: Docking State Office Building, Topeka, KS **Contact:** David Nold **Project #:** 405881

Sample ID	*Location Description*	*Sample Type*	*Flow Rate/Time*	*Total Volume/Area*	*Notes*
Z-01	4th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-02	4th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min	75 Liters	
Z-04	10th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-05	10th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min	75 Liters	
Z-07	Exterior Control	Zefon	15 L/min – 5 min	75 Liters	
T-08	4th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-09	4th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-10	4th floor, west wall, ventilator diffuser	Tape	NA	NA	
T-11	10th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-12	10th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-13	10th floor, west wall, ventilator diffuser	Tape	NA	NA	

COPY

Additional Instructions:

- Standard Turnaround
- E-mail results to: dnold@4apex.com
- Please Fax results to Attn. Dave at (913) 338-2741
- Send invoice to: Accts. Payable, APEX Environmental Consultants

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-01: 4th floor, north		Z-02: 4th floor, center		Z-03: 4th floor, south (Rebecca's office)		Z-04: 10th floor, north	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	549669-1		549670-1		549671-1		549672-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria								
Arthrinium								
Ascospores*								
Aureobasidium								
Basidiospores*								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	4	53	4	53	4	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13	1	13	1	13		
Other colorless								
Penicillium/Aspergillus types†							1	13
Pithomyces								
Rusts*								
Smuts*, Periconia, Myxomycetes*								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		66		66		66		13

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-05: 10th floor, center		Z-06: 10th floor, south (Receivables)		Z-07: Exterior control	
Comments (see below)	None		None		None	
Lab ID-Version‡:	549673-1		549674-1		549675-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					4	53
Arthrinium						
Ascospores*			1	13		
Aureobasidium						
Basidiospores*			1	13		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	13	4	53	12	160
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown					1	13
Other colorless						
Penicillium/Aspergillus types†					4	53
Pithomyces						
Rusts*					1	13
Smuts*, Periconia, Myxomycetes*					2	27
Stachybotrys						
Stemphylium						
Torula					1	13
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		13		79		332

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
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‡ A "Version" greater than 1 indicates amended data.

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-07: Exterior control

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	53	7 - 27 - 310	55
Ascospores	ND	13 - 160 - 3,200	75
Basidiospores	ND	27 - 370 - 14,000	95
Cladosporium	160	53 - 590 - 7,400	97
Other brown	13	7 - 13 - 93	40
Penicillium/Aspergillus types	53	38 - 210 - 2,600	94
Rusts	13	7 - 13 - 280	20
Smuts, Periconia, Myxomycetes	27	7 - 40 - 630	68
Torula	13	7 - 13 - 170	11
Total	332		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-01: 4th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Cladosporium	53
Other brown	13
Total	66

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Re: 40588I; Docking State Office Building

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Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-02: 4th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				53
Other brown				13
Total				66

Location: Z-03: 4th floor, south (Rebecca's office)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				53
Other brown				13
Total				66

Location: Z-04: 10th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.5446 Critical value: 0.6786 Outside Similar: No	Score: 101 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Penicillium/Aspergillus types				13
Total				13

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C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-05: 10th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.7321 Critical value: 0.6786 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				13
Total				13

Location: Z-06: 10th floor, south (Receivables)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 23%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.0750 Critical value: 0.5833 Outside Similar: No	Score: 102 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Ascospores				13
Basidiospores				13
Cladosporium				53
Total				79

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Sampling: 12-14-2004
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MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-07, Exterior control

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: December				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	53	7	22	300	37	13	91	910	69
Bipolaris/Drechslera group	-	7	13	200	12	7	13	80	22
Chaetomium	-	7	13	110	11	7	13	230	10
Cladosporium	160	27	430	6,300	94	51	1,300	19,000	99
Curvularia	-	7	13	460	11	7	13	260	22
Nigrospora	-	7	13	130	9	7	13	150	27
Other brown	13	7	13	80	34	7	20	93	44
Penicillium/Aspergillus types	53	27	210	2,400	93	51	270	3,300	96
Stachybotrys	-	7	13	320	3	7	13	670	4
Torula	13	7	13	93	4	7	13	420	18
Seldom found growing indoors**									
Ascospores	-	13	120	2,100	66	27	420	7,800	85
Basidiospores	-	25	360	12,000	93	51	1,100	17,000	98
Rusts	13	7	13	180	11	7	27	860	30
Smuts, Periconia, Myxomycetes	27	7	27	280	55	11	67	1,000	72
TOTAL SPORES/M3	332								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

DIRECT MICROSCOPIC EXAMINATION REPORT

(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 549676-1: Tape sample T-08: 4th floor, east wall, ventilator diffuser				
Scant	None	4+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549677-1: Tape sample T-09: 4th floor, south wall, ventilator diffuser				
Scant	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549678-1: Tape sample T-10: 4th floor, west wall, ventilator diffuser				
Moderate	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549679-1: Tape sample T-11: 10th floor, east wall, ventilator diffuser				
Moderate	Very few	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549680-1: Tape sample T-12: 10th floor, south wall, ventilator diffuser				
Moderate	None	2+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549681-1: Tape sample T-13: 10th floor, west wall, ventilator diffuser				
Moderate	Few	2+ *Cladosporium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

APPENDIX B
PHOTO LOG

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

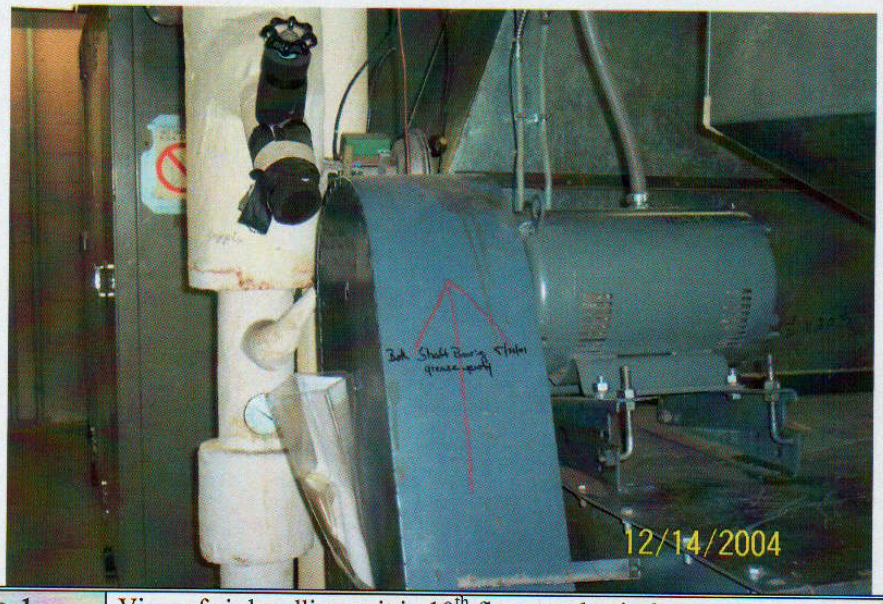

Photo No. 1	View of air handling unit in 10th floor mechanical room.

Photo No. 2	View of filters in 10th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 3	View of ceiling air diffuser located on 10th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 10th floor.

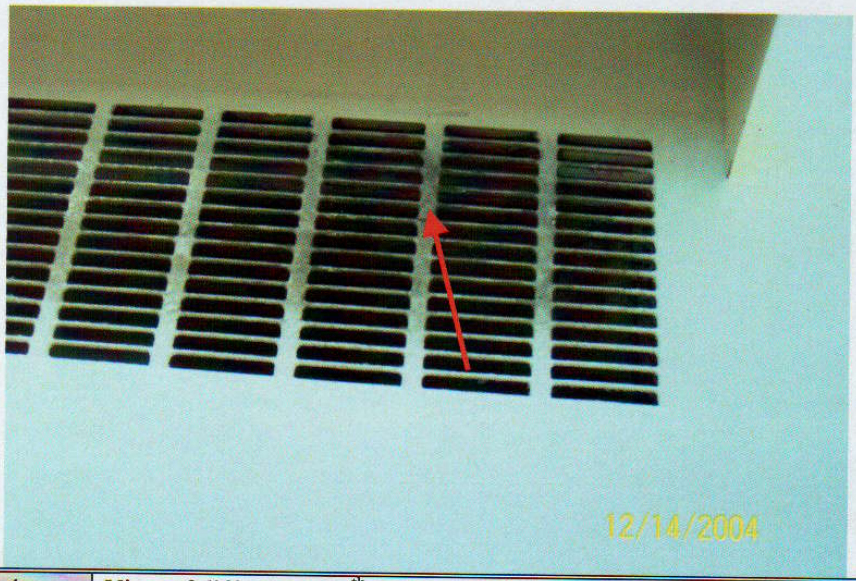

Photo No. 4	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-11.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 5	View inside 10th floor ventilator unit.

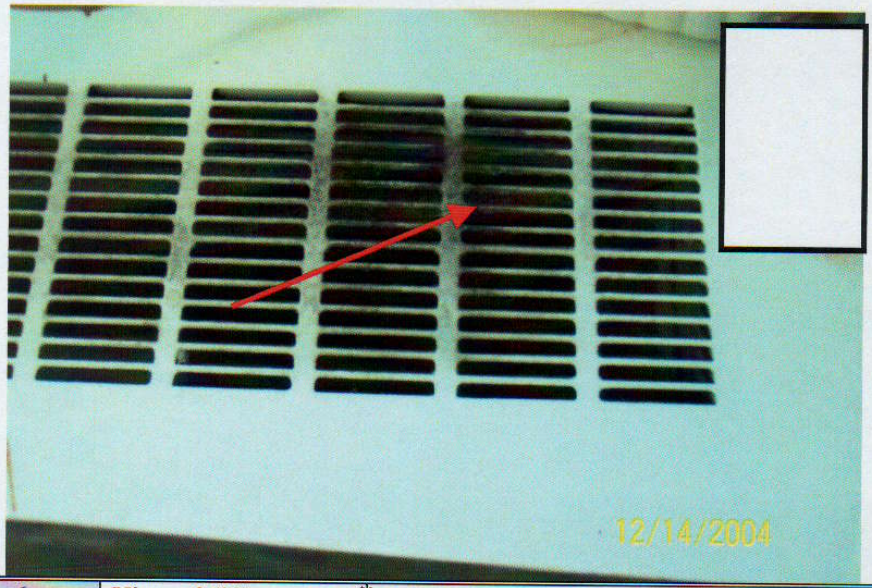

Photo No. 6	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-12.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 7	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-13.

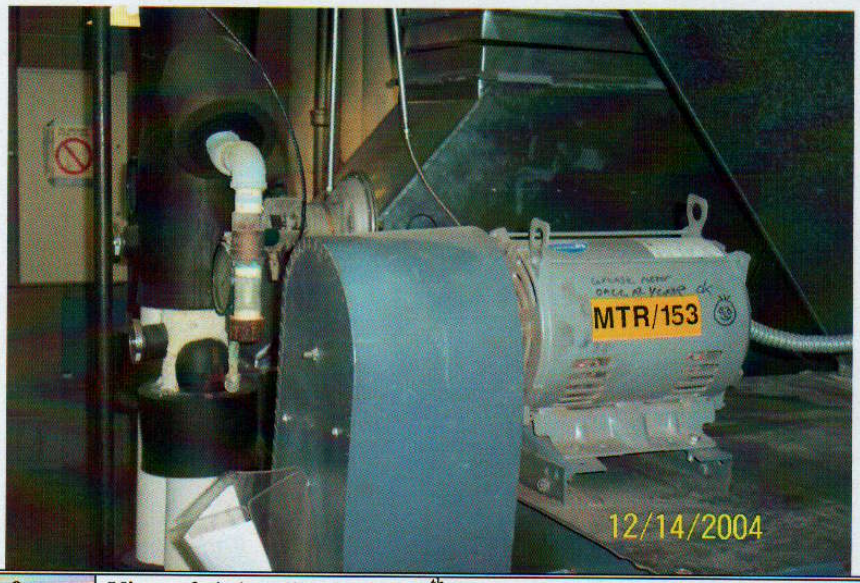

Photo No. 8	View of air handling unit in 4th floor mechanical room.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 9	View of filters in 4th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

Photo No. 10	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-08.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 11	View of ceiling air diffuser located on 4th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 4th floor.

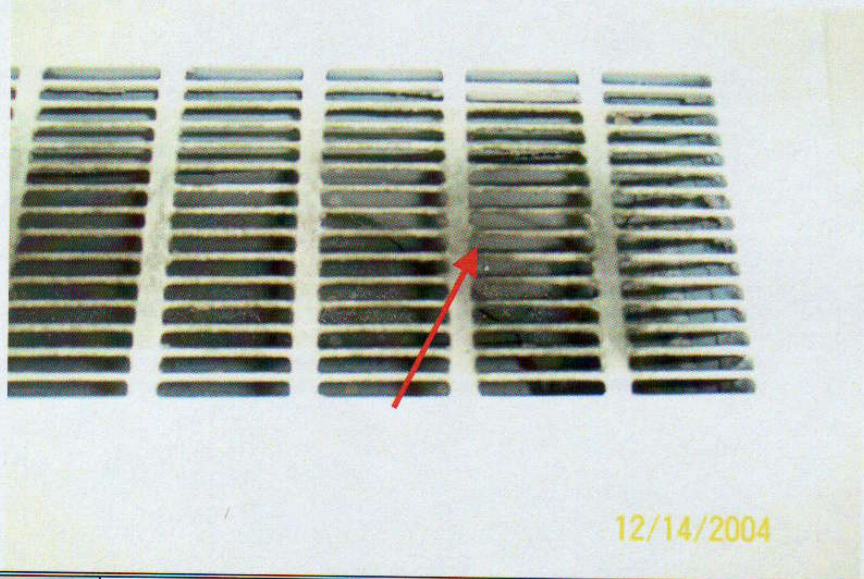

Photo No. 12	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-09.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 13	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-10.

Photo No. 14	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

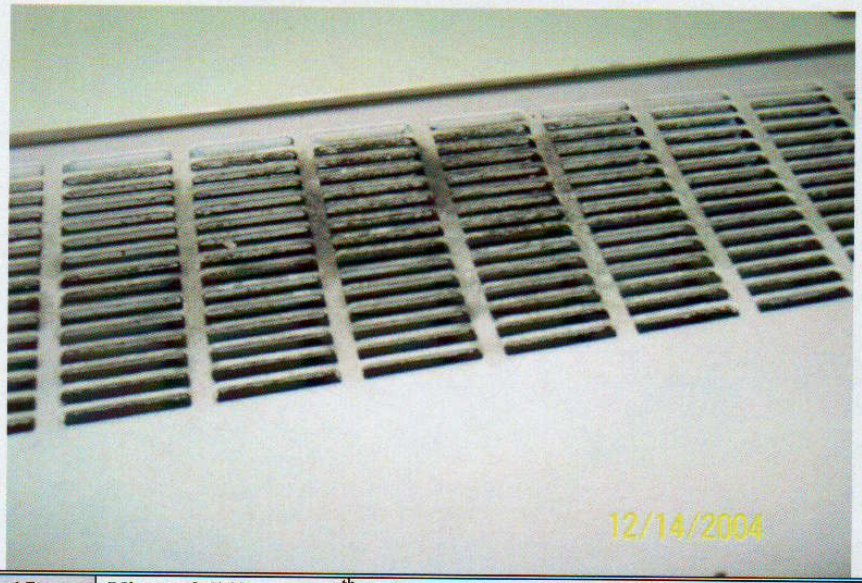

Photo No. 15	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

Photo No. 16	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 17	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

APEX ENVIRONMENTAL CONSULTANTS, INC.

8600 W. 110th Street, Suite 120 • Overland Park, Kansas 66210 • (913) 338-2739 • Fax (913) 338-2741

FAX COVER SHEET

DATE: 10/20/04

TO: JOAN ENGLE

FIRM: KS SELF INS. FUND

CC: _____

PHONE: _____

FAX: (785) 296-6995

- O URGENT
- ⊘ FOR REVIEW
- O FYI
- O PLEASE REPLY
- ⊘ ORIGINALS WILL BE SENT VIA: MAIL
- O THIS IS THE ONLY CORRESPONDENCE THAT WILL BE DELIVERED.

TOTAL NUMBER OF PAGES SENT: 25

SENT BY: CHRIS FREY

Message:

LIMITED FUNGI INVESTIGATION

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING
FIFTH FLOOR
TOPEKA, KANSAS

PREPARED FOR:

MS. JOAN ENGLE
STATE OF KANSAS
DEPARTMENT OF ADMINISTRATION
STATE SELF INSURANCE FUND
900 SW JACKSON, ROOM 920 NORTH
TOPEKA, KANSAS 66612

PREPARED BY:

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8600 W. 110TH STREET, SUITE 120
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WWW.4APEX.COM

APEX PROJECT NO. 40430I
OCTOBER 18, 2004

DOCKING STATE OFFICE BUILDING *TOPEKA, KANSAS*

CLIENT:

Ms. Joan Engle
State of Kansas
Department of Administration
State Self Insurance Fund
900 SW Jackson, Room 920 North
Topeka, Kansas 66612

PROJECT:

Limited Fungi Investigation
Fifth Floor
Docking State Office Building
Topeka, Kansas

APEX Project No.40430I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:

Christopher S. Frey, CIE
Vice President

Address: 8600 W. 110th Street, Suite 120
Overland Park, Kansas 66210
Tel: (913) 338-2739 Fax: (913) 338-2741
e-mail: cfrey@4apex.com

1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fifth floor of Docking State Office Building on September 20, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually identify and quantify levels of environmental fungi in the air and on a variety of surfaces on the fifth floor of the building. It is understood that this work was initiated as a result of an employee complaint regarding potential exposure to mold while working in the subject area. Chris Frey conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, no visible fungal growth was observed during the inspection. Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology in the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at generally lower concentrations. Surface samples randomly collected from dust accumulations inside of the perimeter convector system indicated the presence of light fungal growth. Upon visual inspection and review of the analytical data, it is not believed that this growth is contributing to the indoor bioaerosol spore load in the subject area.

3.0 SAMPLING METHODOLOGY

Eleven (11) bioaerosol samples were obtained including two (2) exterior control samples on September 20, 2004. Representative sampling locations were chosen throughout the fifth floor, as well as outdoor samples for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of

the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of June 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-02	Center of Anita Talley's Work Station	Zefon	15 L/min – 5 min
Z-03	Center of Laura Stortzum's Work Station	Zefon	15 L/min – 5 min
Z-05	Outside Bob Hedberg's Work Station	Zefon	15 L/min – 5 min
Z-07	Center of Karen Parker's Work Station	Zefon	15 L/min – 5 min
Z-09	Center of Janice Jordan's Work Station	Zefon	15 L/min – 5 min
Z-11	Conference Area at North-Center Portion of 5th Floor	Zefon	15 L/min – 5 min
Z-13	Exterior Control – Southwest Corner of Building	Zefon	15 L/min – 5 min

Each viable (live) sample was collected using an agar plate in conjunction with an Andersen single-stage impactor and a Dawson high volume air sampling pump. The sampling pump was calibrated immediately before and after use to a flow rate of 28.3 liters per minute. Fungal plates were prepared with malt extract agar (MEA). The MEA plates had an expiration date of December 10, 2004. Please note that Andersen bioaerosol samples measure viable fungi that are present in the air.

Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
AF-01	Center of Anita Talley's Work Station	AF	28.3 L/min – 2 min
AF-06	Center of Beverly Rodger's Work Station	AF	28.3 L/min – 2 min
AF-10	Outside Kathy Goldsmith's Work Station	AF	28.3 L/min – 2 min
AF-14	Exterior Control – Southwest Corner of Building	AF	28.3 L/min – 2 min

In addition to the bioaerosol samples, three (3) swab samples were collected in selected areas exhibiting dust accumulation, water damage, and/or area where fungal spores tend to settle. Each swab sample was sealed in its original tube with suspension solution and labeled with an identification number. These samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION
S-04	Inside Convector Unit Adjacent to Anita Talley's W.S.
S-08	Inside Convector Unit in Bill Ossmann's Office
S-12	Inside Convector Unit - Ann Moneymaker's W.S.

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Bruno, California for preparation, incubation, microscopic quantification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the

following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M³)	% OF OUTSIDE AIR (CONTROL)
Z-02	Center of Anita Talley's Work Station	559	5%
Z-03	Center of Laura Stortzum's Work Station	332	3%
Z-05	Outside Bob Hedberg's Work Station	1,653	16%
Z-07	Center of Karen Parker's Work Station	292	3%
Z-09	Center of Janice Jordan's Work Station	119	1%
Z-11	Conference Area at North-Center Portion of 5th Floor	120	1%
Z-13	Exterior Control – Southwest Corner of Building	10,279	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

The following table provides the viable fungi concentrations for the bioaerosol samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (CFU/M³)	% OF OUTSIDE AIR (CONTROL)
AF-01	Center of Anita Talley's Work Station	194	8%
AF-06	Center of Beverly Rodger's Work Station	301	13%
AF-10	Outside Kathy Goldsmith's Work Station	71	3%
AF-14	Exterior Control – Southwest Corner of Building	2,328	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note

that other species/genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface swab samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
S-04	Inside Convector Unit Adjacent to Anita Talley's W.S.	<1+ *Cladosporium* species
S-08	Inside Convector Unit in Bill Ossmann's Office	1+ *Penicillium* species 1+ *Cladosporium* species
S-12	Inside Convector Unit - Ann Moneymaker's W.S.	2+ *Cladosporium* species 1+ *Penicillium* species

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As

stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

At the time of sampling, outdoor weather conditions were sunny with a temperature of 76 degrees Fahrenheit and relative humidity of 37%. The winds were light and variable and predominantly out of the south. The average interior temperature was 73.6 degrees and 39% relative humidity.

As previously indicated, there was no evidence of abnormal airborne fungal ecology observed in the interior samples collected. Light fungal growth was identified in dust accumulations inside of the convector units which run along the perimeter walls of the fifth floor. This growth was not visible; however, it was observed in each of the three surface samples collected. Upon visual inspection and review of the analytical data, it is not believed that this light growth is contributing to the indoor bioaerosol spore load in the subject area.

The dust accumulations did not appear to be abnormal, as these conditions are frequently observed in HVAC systems in commercial and public office buildings. According to Dennis Buelt, Capitol Complex Safety Officer, the convector units are maintained approximately on a quarterly basis.

It is important to note that the claimant, Anita Talley, retained some of the convector unit filters for APEX's inspection. The filters were noted to be dirty, but not overloaded. It is our opinion that the uniform dust accumulations on the filters indicate that the filters were filtering dust particles from the air, as designed.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, the analytical data provides no indication of degradation of indoor air quality with regard to fungal spores. No additional sampling is recommended at this time.

Considering that light fungal growth was observed in the dust accumulations inside of the convector units, we recommend that they be thoroughly cleaned in accordance with NADCA standards. The future maintenance of these units should be performed on the current quarterly schedule.

8.0 CONDITIONS AND LIMITATIONS

Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS

Environmental Microbiology Laboratory, Inc.

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(650) 829-5800 Fax (650) 829-5852

5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5805

www.emlab.com

Report for:

Mr. Chris Frey
Apex Environmental Consultants, Inc
8600 West 110th Street
Suite # 120
Overland Park, KS 66210 USA

Regarding: Project: 40430I; Docking State Office Bldg. 6th Floor
EML ID: 115396

Approved by:

Janet Gallup
Senior Aerobiologist

Dr. David A. Bell
Laboratory President

This coversheet is included with your report in order to comply with AIHA and ISO accreditation requirements.

For clarity, we report the number of significant digits as calculated; but, due to the nature of this type of biological data, the number of significant digits that is used for interpretation should generally be one or two. All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank corrections of results is not a standard practice.

Document Number: 200091 - Revision Number: 3

Environmental Microbiology Laboratory, Inc.
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-02: Center of Anita Talley's work station		Z-03: Center of Laura Stortzum's work station		Z-05: Outside Bob Hedberg's work station		Z-07: Center of Karen Parker's work station	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	493047-1		493048-1		493049-1		493050-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					1	13		
Arthrinium								
Ascospores*	4	53	4	53	8	107		
Aureobasidium								
Basidiospores*			4	53	16	213	4	53
Bipolaris/Drechslera group								
Botrytis								
Cercospora								
Cladosporium	12	160	8	107	36	480	4	53
Curvularia	1	13						
Epicoccum								
Fusarium	1	13			4	53		
Myrothecium								
Nigrospora								
Oidium								
Other brown					2	27		
Penicillium/Aspergillus types†	24	320	4	53	56	747	12	160
Pithomyces								
Polythrincium								
Rusts*			1	13	1	13	1	13
Smuts*, Periconia, Myxomycetes*			4	53			1	13
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	2+		1+		2+		2+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		559		332		1,653		292

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may obscure the small spores such as the *Penicillium/Aspergillus* group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.
‡ A "Version" greater than 1 indicates amended data.

Environmental Microbiology Laboratory, Inc.
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(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-09: Center of Janice Jordan's work station		Z-11: Conference area at north-center portion of 5th floor		Z-13: Exterior control, southwest corner of building	
Comments (see below)	None		None		None	
Lab ID-Version‡:	493051-1		493052-1		493053-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					13	173
Arthrinium						
Ascospores*	4	53			28	373
Aureobasidium						
Basidiospores*					108	1,440
Bipolaris/Drechslera group						
Botrytis						
Cercospora					6	80
Cladosporium			8	107	516	6,880
Curvularia					1	13
Epicoccum					8	107
Fusarium						
Myrothecium						
Nigrospora					1	13
Oidium					1	13
Other brown						
Penicillium/Aspergillus types†	4	53			60	800
Pithomyces						
Polythrincium					1	13
Rusts*					23	307
Smuts*, Periconia, Myxomycetes*	1	13	1	13	5	67
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	2+		1+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		119		120		10,279

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may obscure the small spores such as the *Penicillium/Aspergillus* group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.
‡ A "Version" greater than 1 indicates amended data.

09-22-2004: 40430I

Environmental Microbiology Laboratory, Inc.
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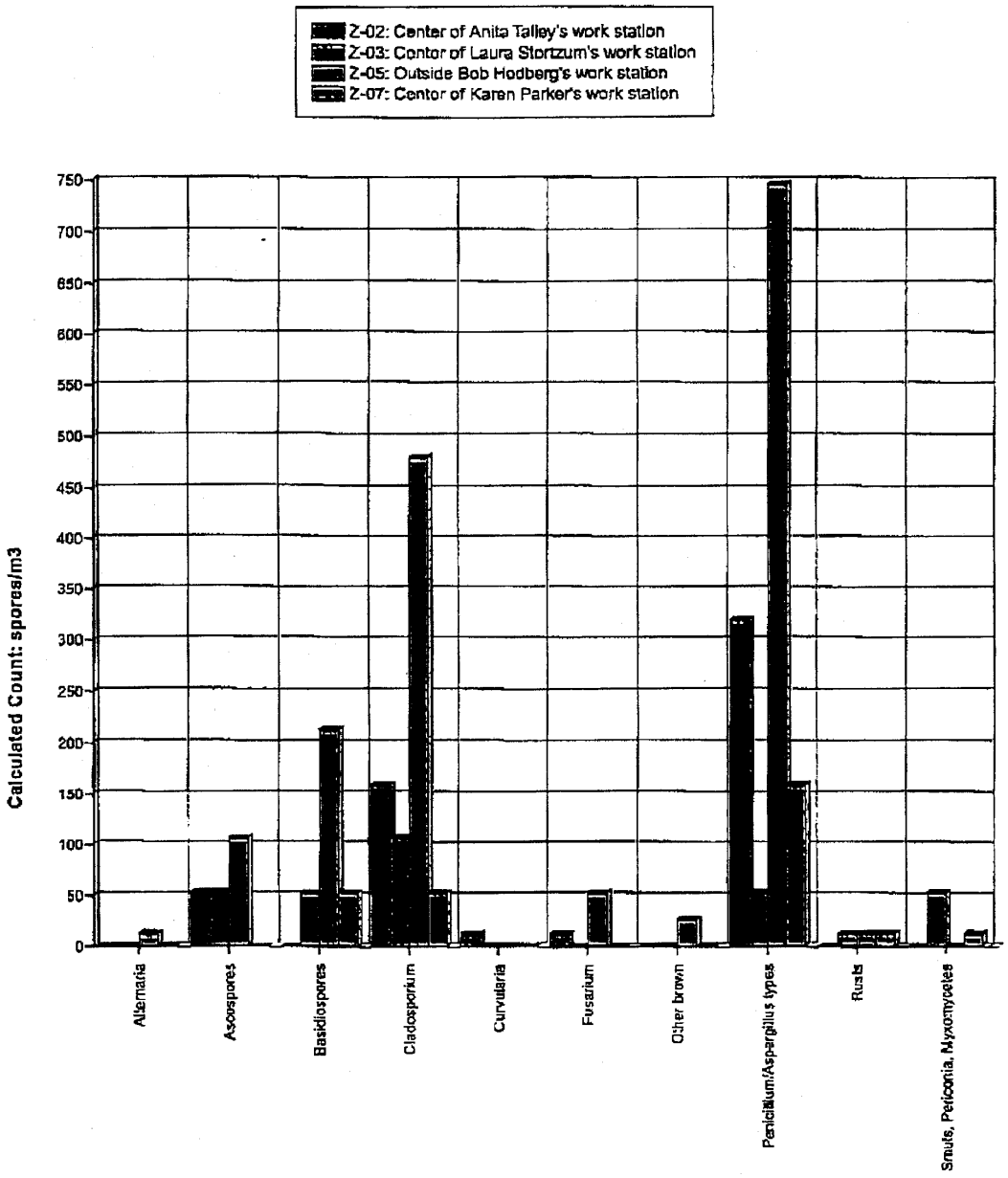
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:
Note: Graphical output may understate the importance of certain "marker" genera.

09-22-2004: 404301

Environmental Microbiology Laboratory, Inc.
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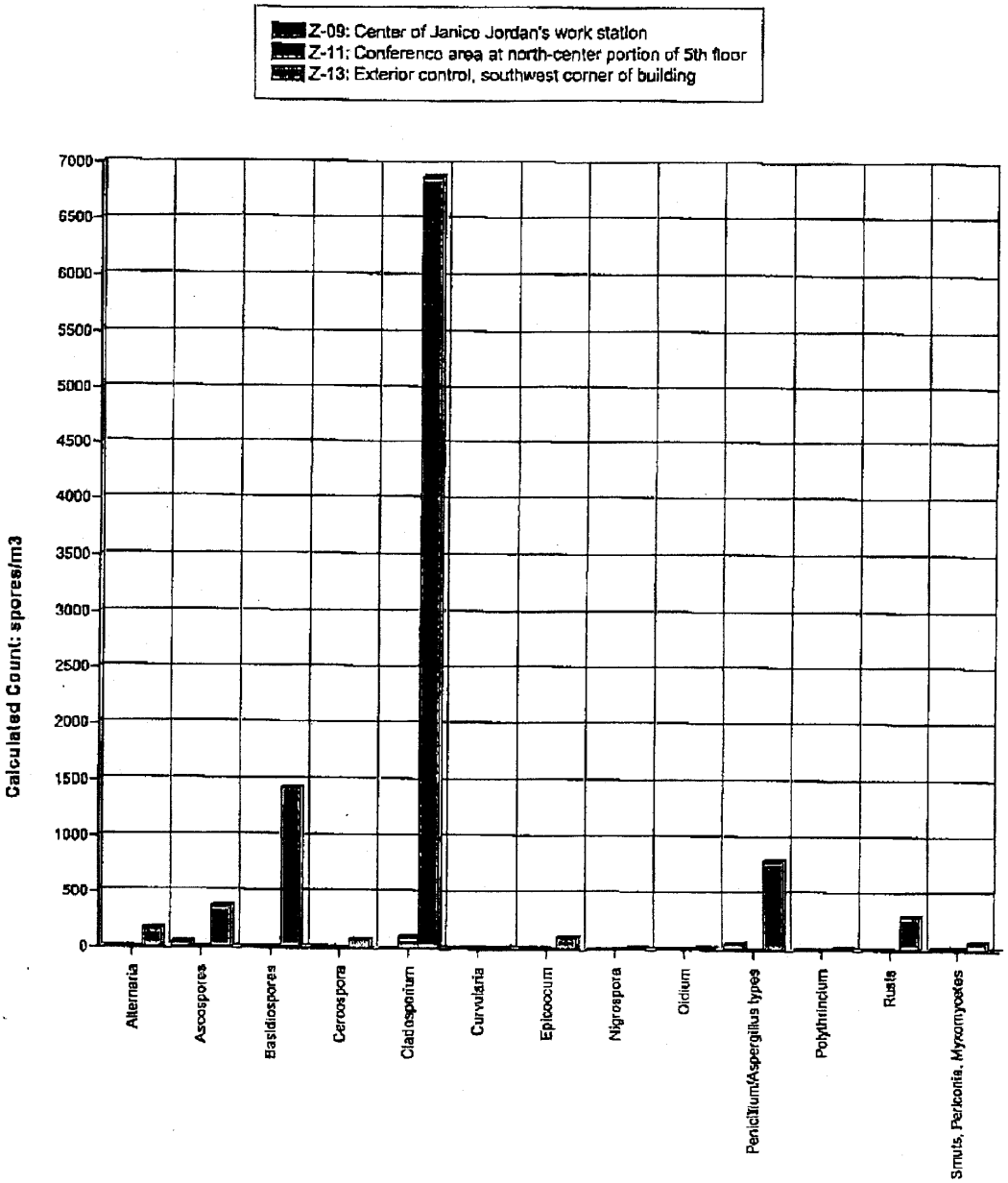
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:

Note: Graphical output may understate the importance of certain "marker" genera.

Environmental Microbiology Laboratory, Inc.
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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-27-2004

CULTURABLE AIR FUNGI REPORT

Location:	AF-01: Center of Anita Talley's work station		AF-06: Center of Beverly Rodger's work station		AF-10: Outside Kathy Goldsmith's work station		AF-14: Exterior control, southwest corner of building	
Comments (see below)	None		None		None		A	
Lab ID-Version‡:	493037-1		493038-1		493039-1		493040-1	
	raw ct.	cfu*/m3	raw ct.	cfu*/m3	raw ct.	cfu*/m3	raw ct.	cfu*/m3
Acremonium								
Alternaria							1	18
Aspergillus flavus								
Aspergillus fumigatus								
Aspergillus nidulans								
Aspergillus niger								
Aspergillus ochraceus								
Aspergillus versicolor								
Aureobasidium								
Basidiomycetes								
Beauveria					1	18		
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	6	106	9	159	1	18	102	2,080
Curvularia								
Epicoccum			1	18				
Fusarium								
Non-sporulating fungi	2	35	2	35			4	71
Paecilomyces								
Penicillium			4	71	2	35	5	88
Pithomyces	1	18						
Rhizopus							1	18
Sporothrix	2	35	1	18				
Ulocladium								
Yeasts							3	53
Positive Hole	400		400		400		400	
Sample volume (liters)	56.6		56.6		56.6		56.6	
TOTAL CFU*/M3		194		301		71		2,328

* cfu = colony forming units Positive hole correction chart used for all calculations AIHA EMPAT NO.: 102856

Comments: A) The sample was overgrown with a *Rhizopus* species which may have reduced or eliminated the presence of other fungi.

Note: Interpretation is left to the company and/or persons who conducted the field work. Variation is an inherent part of biological sampling. The presence or absence of a few genera in small numbers should not be considered abnormal.
NORMAL SPORE LEVELS: Indoor spore levels usually average 30 to 80% of the outdoor spore level at the time of sampling, with the same general distribution of spore types. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. (These percentages are guidelines, only. A major factor is the accessibility of outdoor air. A residence with open doors and windows and heavy foot traffic may average 95% of the outdoor level while high rise office buildings with little air exchange may average 2%. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types.)
PROBLEM INTERIORS: A substantial increase of one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.
‡ A "Version" greater than 1 indicates amended data.

09-27-2004: 40430I

Environmental Microbiology Laboratory, Inc.
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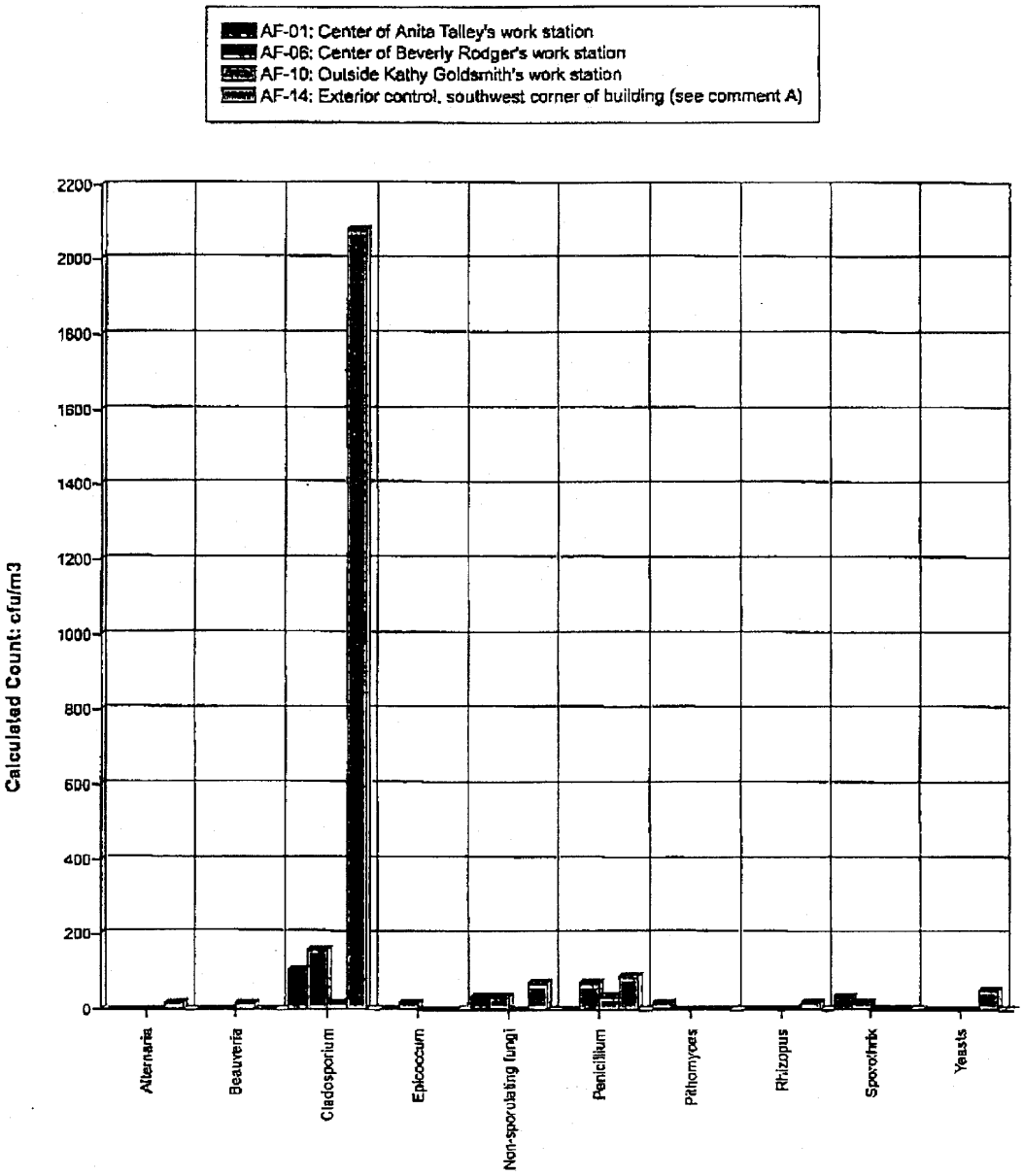
CULTURABLE AIR FUNGI REPORT



Comments: A) The sample was overgrown with a *Rhizopus* species which may have reduced or eliminated the presence of other fungi.

Note: Graphical output may understate the importance of certain "marker" genera.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

DIRECT MICROSCOPIC EXAMINATION REPORT
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 493054-1: Swab sample S-04: Inside convector unit adjacent to Anita Talley's W.S.				
Light	Few	< 1+ *Cladosporium* species	None	Minimal mold growth
Lab ID-Version: 493055-1: Swab sample S-08: Inside convector unit in Bill Ossmann's office				
Light	Few	1+ *Penicillium* species 1+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 493056-1: Swab sample S-12: Center of Ann Moneymaker's work station				
Light	Few	2+ *Cladosporium* species 1+ *Penicillium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-13: Exterior control, southwest corner of building

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	173	7 - 27 - 320	56
Ascospores	373	13 - 160 - 3,300	74
Basidiospores	1,440	27 - 360 - 13,000	95
Cercospora	80	7 - 27 - 430	6
Cladosporium	6,880	53 - 590 - 7,900	97
Curvularia	13	7 - 20 - 570	14
Epicoccum	107	7 - 13 - 230	20
Nigrospora	13	7 - 13 - 270	12
Oidium	13	7 - 13 - 210	15
Penicillium/Aspergillus types	800	38 - 210 - 2,600	94
Polythrincium	13	7 - 13 - 170	2
Rusts	307	7 - 13 - 260	20
Smuts, Periconia, Myxomycetes	67	7 - 40 - 670	68
Total	10,279		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-02: Center of Anita Talley's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 5%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.4444	dF: 14 Result: 0.4044 Critical value: 0.4593 Outside Similar: No	Score: 105 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Ascospores	53
Cladosporium	160
Curvularia	13
Fusarium	13
Penicillium/Aspergillus types	320
Total	559

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-03: Center of Laura Stortzum's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.6316	dF: 13 Result: 0.8022 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Ascospores		53
Basidiospores		53
Cladosporium		107
Penicillium/Aspergillus types		53
Rusts		13
Smuts, Periconia, Myxomycetes		53
Total		332

Location: Z-05: Outside Bob Hedberg's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 16%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.5714	dF: 15 Result: 0.5929 Critical value: 0.4429 Outside Similar: Yes	Score: 131 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Alternaria		13
Ascospores		107
Basidiospores		213
Cladosporium		480
Fusarium		53
Other brown		27
Penicillium/Aspergillus types		747
Rusts		13
Total		1,653

Environmental Microbiology Laboratory, Inc.
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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-07: Center of Karen Parker's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 2%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.5556	dF: 13 Result: 0.7418 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Basidiospores		53
Cladosporium		53
Penicillium/Aspergillus types		160
Rusts		13
Smuts, Periconia, Myxomycetes		13
Total		292

Location: Z-09: Center of Janice Jordan's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.3750	dF: 13 Result: 0.4505 Critical value: 0.4780 Outside Similar: No	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Ascospores		53
Penicillium/Aspergillus types		53
Smuts, Periconia, Myxomycetes		13
Total		119

Environmental Microbiology Laboratory, Inc.
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-11: Conference area at north-center portion of 5th floor

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.2667	dF: 13 Result: 0.4808 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					107
Smuts, Periconia, Myxomycetes					13
Total					120

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-13, Exterior control, southwest corner of building

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: September				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	173	7	33	560	68	7	91	1,000	69
Bipolaris/Drechslera group	-	7	13	250	26	7	13	80	21
Chaetomium	-	7	13	93	20	7	13	350	10
Cladosporium	6,880	53	850	13,000	99	51	1,300	20,000	99
Curvularia	13	7	27	750	30	7	13	130	20
Epicoccum	107	7	13	360	26	7	26	250	45
Nigrospora	13	7	20	520	24	7	13	140	24
Penicillium/Aspergillus types	800	53	320	4,100	96	51	270	3,400	98
Polythrincium	13	7	13	280	4	7	13	79	6
Stachybotrys	-	7	13	320	5	7	13	640	5
Torula	-	7	13	100	14	7	20	390	18
Seldom found growing indoors**									
Ascospores	373	13	160 -	3,700	76	35	470	9,300	83
Basidiospores	1,440	27	370	23,000	97	51	1,200	18,000	97
Cercospora	80	7	33	1,100	12	7	38	250	26
Oidium	13	7	13	200	13	7	13	160	13
Rusts	307	7	13	250	23	7	25	730	26
Smuts, Periconia, Myxomycetes	67	8	53	690	82	13	65	1,000	70
TOTAL SPORES/M3	10,279								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

LIMITED INDOOR AIR QUALITY SAMPLING SERVICES

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING – 4TH AND 10TH FLOORS
TOPEKA, KANSAS

PREPARED FOR:

MR. DENNIS BUELT
CAPITOL COMPLEX SAFETY COORDINATOR
KANSAS DIVISION OF FACILITIES MANAGEMENT
LANDON STATE OFFICE BUILDING
900 SW JACKSON STREET, ROOM 653
TOPEKA, KANSAS 66612-2210

PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.
8600 W. 110TH STREET, SUITE 120
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TEL: (913) 338-APEX FAX: (913) 338-2741
WWW.4APEX.COM

CLIENT:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612

PROJECT:

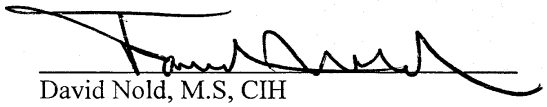
Limited Indoor Air Quality Sampling Services
Docking State Office Building – 4th and 10th Floors
Topeka, Kansas

APEX Project No.40588I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:



David Nold, M.S, CIH
Certified Industrial Hygienist

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1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fourth and tenth floors of the Docking State Office Building on December 14, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually inspect the two floors for visible fungal contamination, and to conduct limited air quality sampling in each prospective area. It is understood that this work was initiated as a result of employee concerns regarding discoloration on the top of some of the convector units. David Nold, of APEX, conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, visible fungal contamination was observed on many of the diffuser grills located on convector units throughout the fourth and tenth floors (see Appendix B, Photo Log). The quantity of contamination ranged from light spotty growth on some of the units, to twenty square inches of light growth on other units. Laboratory results indicate that the visible fungal growth consists of species of Cladosporium, a ubiquitous and common type of fungi observed in the outdoor environment. Cladosporium is most often the predominate airborne species observed in the outdoor environment and is not considered a "toxic mold". However, Cladosporium is considered an allergen.

The main air handling system for the both the fourth and tenth floors was also inspected with no indication of abnormal conditions. The filters appeared to be in good condition and free of excessive dust and/or debris. Additionally, the ceiling diffuser vents associated with the main air handling systems appeared to be relatively clean.

Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology on the fourth and tenth floors of the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at lower concentrations. In other words, it does not appear that the visible fungal growth observed on the convector units is adversely affecting the air quality in the building.

3.0 SAMPLING METHODOLOGY

Seven (7) bioaerosol samples were obtained, including one (1) exterior control sample during the sampling effort. Representative sampling locations were chosen throughout the fourth and tenth floors, as well as an outdoor sample for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of October 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-01	4th floor, north	Zefon	15 L/min – 5 min
Z-02	4th floor, center	Zefon	15 L/min – 5 min
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min
Z-04	10th floor, north	Zefon	15 L/min – 5 min
Z-05	10th floor, center	Zefon	15 L/min – 5 min
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min
Z-07	Exterior Control	Zefon	15 L/min – 5 min

In addition to the bioaerosol samples, six (6) tape lift samples were collected in selected areas exhibiting suspect visible fungal amplification. The tape samples were mounted on clear glass slides, sealed in clean centrifuge tubes, and labeled with an identification number. The surface samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE
T-08	4th floor, east wall, ventilator diffuser	Tape
T-09	4th floor, south wall, ventilator diffuser	Tape
T-10	4th floor, west wall, ventilator diffuser	Tape
T-11	10th floor, east wall, ventilator diffuser	Tape
T-12	10th floor, south wall, ventilator diffuser	Tape
T-13	10th floor, west wall, ventilator diffuser	Tape
T = Tape		

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Diego, California for preparation, incubation, microscopic identification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M^3)	% OF OUTSIDE AIR (CONTROL)
Z-01	4th floor, north	66	19.9%
Z-02	4th floor, center	66	19.9%
Z-03	4th floor, south (Rebecca's Office)	66	19.9%
Z-04	10th floor, north	13	3.9%
Z-05	10th floor, center	13	3.9%
Z-06	10th floor , south (Receivables)	79	23.8%
Z-07	Exterior Control	332	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
T-08	4th floor, east wall, ventilator diffuser	Cladosporium 4+
T-09	4th floor, south wall, ventilator diffuser	Cladosporium 3+
T-10	4th floor, west wall, ventilator diffuser	Cladosporium 3+
T-11	10th floor, east wall, ventilator diffuser	Cladosporium 3+
T-12	10th floor, south wall, ventilator diffuser	Cladosporium 2+
T-13	10th floor, west wall, ventilator diffuser	Cladosporium 2+

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

The building was occupied under normal operating conditions at the time of sampling. Outdoor weather conditions were overcast and raining with a temperature in the mid 30's (degrees Fahrenheit).

Light fungal growth was identified on top of some of the convector units that run along the perimeter walls on both the fourth and tenth floors (see Appendix B, Photo Log). Surface sampling indicates this fungal growth consists of species of Cladosporium. Cladosporium is a ubiquitous type of fungi commonly observed in the outdoor environment and is not considered to be a "toxic mold". Furthermore, based on the

bioaerosol sampling performed, the fungal growth observed on the convector units does not appear to be adversely affecting the air quality. No evidence of abnormal airborne fungal ecology was observed on either the fourth or tenth floors. Nevertheless, fungal growth should not be allowed to grow and amplify in the indoor environment.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, light fungal growth was observed on top of some of the convector units located along the perimeter walls on the fourth and tenth floors of the building. However, based on the air sampling performed, no evidence of abnormal airborne fungal ecology was observed in the affected areas.

Due to the light fungal growth on the top of the convector units, APEX recommends that the units be cleaned in accordance with NADCA standards. Future cleaning of these units should be performed on the current quarterly maintenance schedule.

8.0 CONDITIONS AND LIMITATIONS

Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection

with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS

APEX Environmental Consultants, Inc.

8600 W. 110th Street • Overland Park, KS 66210 • (913) 338-2739 • FAX (913) 338-2741

Sample Chain of Custody

Sample Date: December 14, 2004 **Page:** 1 of 1

Project Name: Docking State Office Building, Topeka, KS **Contact:** David Nold **Project #:** 405881

Sample ID	*Location Description*	*Sample Type*	*Flow Rate/Time*	*Total Volume/Area*	*Notes*
Z-01	4th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-02	4th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min	75 Liters	
Z-04	10th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-05	10th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min	75 Liters	
Z-07	Exterior Control	Zefon	15 L/min – 5 min	75 Liters	
T-08	4th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-09	4th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-10	4th floor, west wall, ventilator diffuser	Tape	NA	NA	
T-11	10th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-12	10th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-13	10th floor, west wall, ventilator diffuser	Tape	NA	NA	

Additional Instructions:

- Standard Turnaround
- E-mail results to: dnold@4apex.com
- Please Fax results to Attn. Dave at (913) 338-2741
- Send invoice to: Accts. Payable, APEX Environmental Consultants

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-01: 4th floor, north		Z-02: 4th floor, center		Z-03: 4th floor, south (Rebecca's office)		Z-04: 10th floor, north	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	549669-1		549670-1		549671-1		549672-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria								
Arthrinium								
Ascospores*								
Aureobasidium								
Basidiospores*								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	4	53	4	53	4	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13	1	13	1	13		
Other colorless								
Penicillium/Aspergillus types†							1	13
Pithomyces								
Rusts*								
Smuts*, Periconia, Myxomycetes*								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		66		66		66		13

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-05: 10th floor, center		Z-06: 10th floor, south (Receivables)		Z-07: Exterior control	
Comments (see below)	None		None		None	
Lab ID-Version‡:	549673-1		549674-1		549675-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					4	53
Arthrinium						
Ascospores*			1	13		
Aureobasidium						
Basidiospores*			1	13		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	13	4	53	12	160
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown					1	13
Other colorless						
Penicillium/Aspergillus types†					4	53
Pithomyces						
Rusts*					1	13
Smuts*, Periconia, Myxomycetes*					2	27
Stachybotrys						
Stemphylium						
Torula					1	13
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		13		79		332

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-07: Exterior control

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	53	7 - 27 - 310	55
Ascospores	ND	13 - 160 - 3,200	75
Basidiospores	ND	27 - 370 - 14,000	95
Cladosporium	160	53 - 590 - 7,400	97
Other brown	13	7 - 13 - 93	40
Penicillium/Aspergillus types	53	38 - 210 - 2,600	94
Rusts	13	7 - 13 - 280	20
Smuts, Periconia, Myxomycetes	27	7 - 40 - 630	68
Torula	13	7 - 13 - 170	11
Total	332		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-01: 4th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Cladosporium	53
Other brown	13
Total	66

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C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-02: 4th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					53
Other brown					13
Total					66

Location: Z-03: 4th floor, south (Rebecca's office)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					53
Other brown					13
Total					66

Location: Z-04: 10th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.5446 Critical value: 0.6786 Outside Similar: No	Score: 101 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Penicillium/Aspergillus types					13
Total					13

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Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-05: 10th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.7321 Critical value: 0.6786 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					13
Total					13

Location: Z-06: 10th floor, south (Receivables)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 23%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.0750 Critical value: 0.5833 Outside Similar: No	Score: 102 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Ascospores					13
Basidiospores					13
Cladosporium					53
Total					79

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Sampling: 12-14-2004
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MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-07, Exterior control

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: December				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	53	7	22	300	37	13	91	910	69
Bipolaris/Drechslera group	-	7	13	200	12	7	13	80	22
Chaetomium	-	7	13	110	11	7	13	230	10
Cladosporium	160	27	430	6,300	94	51	1,300	19,000	99
Curvularia	-	7	13	460	11	7	13	260	22
Nigrospora	-	7	13	130	9	7	13	150	27
Other brown	13	7	13	80	34	7	20	93	44
Penicillium/Aspergillus types	53	27	210	2,400	93	51	270	3,300	96
Stachybotrys	-	7	13	320	3	7	13	670	4
Torula	13	7	13	93	4	7	13	420	18
Seldom found growing indoors**									
Ascospores	-	13	120	2,100	66	27	420	7,800	85
Basidiospores	-	25	360	12,000	93	51	1,100	17,000	98
Rusts	13	7	13	180	11	7	27	860	30
Smuts, Periconia, Myxomycetes	27	7	27	280	55	11	67	1,000	72
TOTAL SPORES/M3	332								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

DIRECT MICROSCOPIC EXAMINATION REPORT
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 549676-1: Tape sample T-08: 4th floor, east wall, ventilator diffuser				
Scant	None	4+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549677-1: Tape sample T-09: 4th floor, south wall, ventilator diffuser				
Scant	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549678-1: Tape sample T-10: 4th floor, west wall, ventilator diffuser				
Moderate	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549679-1: Tape sample T-11: 10th floor, east wall, ventilator diffuser				
Moderate	Very few	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549680-1: Tape sample T-12: 10th floor, south wall, ventilator diffuser				
Moderate	None	2+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549681-1: Tape sample T-13: 10th floor, west wall, ventilator diffuser				
Moderate	Few	2+ *Cladosporium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

APPENDIX B
PHOTO LOG

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 1	View of air handling unit in 10th floor mechanical room.

Photo No. 2	View of filters in 10th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 3	View of ceiling air diffuser located on 10th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 10th floor.

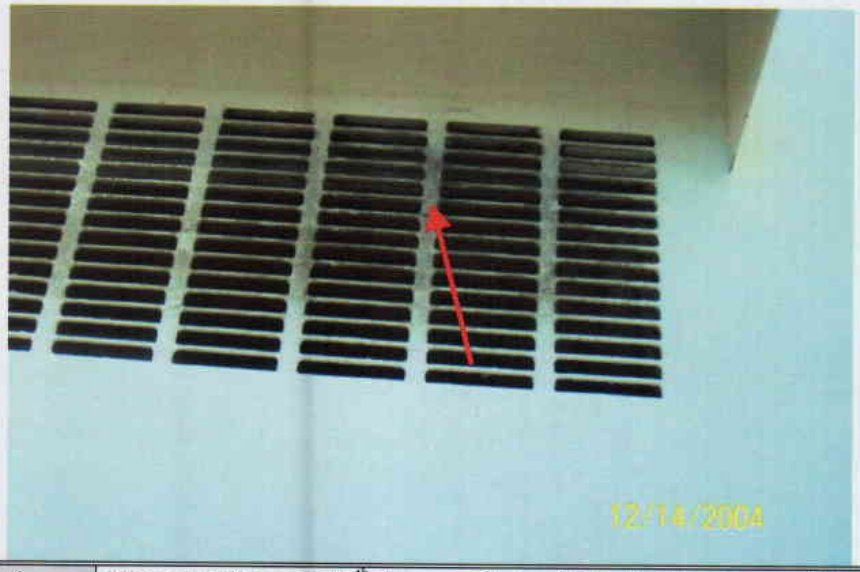


Photo No. 4	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-11.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 5	View inside 10th floor ventilator unit.

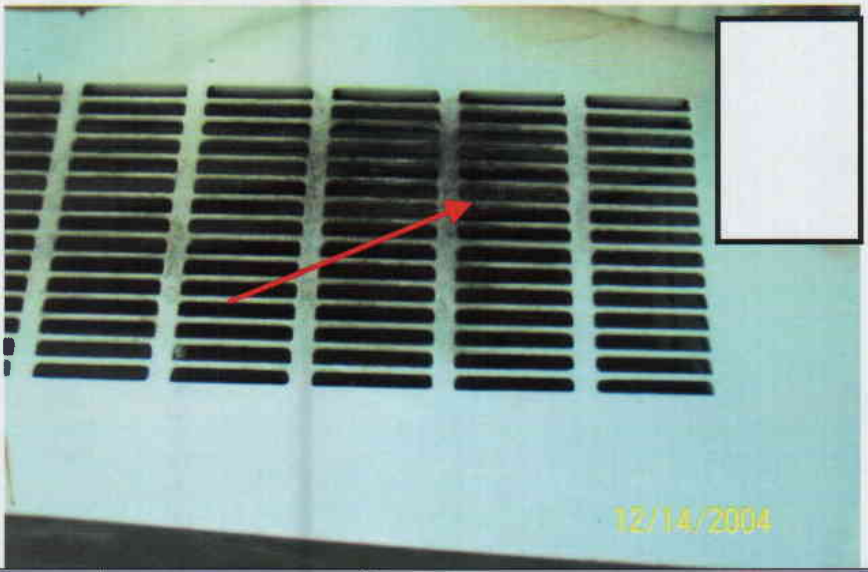


Photo No. 6	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-12.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 7	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-13.

Photo No. 8	View of air handling unit in 4th floor mechanical room.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 9	View of filters in 4th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

Photo No. 10	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-08.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 11	View of ceiling air diffuser located on 4th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 4th floor.

Photo No. 12	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-09.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 13	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-10.

Photo No. 14	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 15	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

Photo No. 16	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

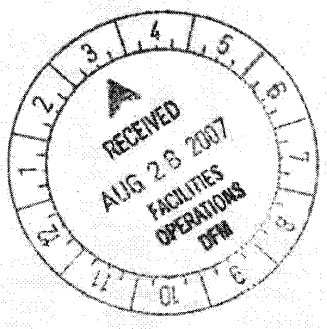
PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 17	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary

www.dol.ks.gov



August 9, 2007

Mr. Dan Balch
Department of Administration
Division of Facilities Management
Landon State Office Building
900 SW Jackson St. Room 653
Topeka, KS 66612

Inspection Number: 865708002

Mr. Balch:

On July 24, 2007, Helen Cook, Certified Industrial Hygienist and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an on-site inspection of your facilities to determine if possible unsafe or unhealthy working conditions might be present due to a specific complaint received in our department. This inspection was conducted under the authority granted the Secretary of Kansas Department of Labor by K.S.A. 44-636. A summary of findings follows on the Inspection Notice. We are pleased to report that no hazards were found as a result of the inspection.

It is our goal to continue to reduce the number of persons injured on the job in Kansas. With people like yourself assisting us, our attainment of that goal is made easier.

Again, thanks for your cooperation in this endeavor. If we may be of further assistance, please do not hesitate to contact this office.

Should you need any additional assistance or clarification regarding any of the enclosed findings, please contact this office or Helen Cook, Certified Industrial Hygienist, who visited your place of employment.

"You can obtain information about our upcoming Safety & Health Conference by going to our website at: www.dol.ks.gov, or by calling Dena Ackors at (785) 296-4386."

Sincerely,

Steve Zink, CSP
Director, Industrial Safety & Health

SZ: hc; bag
Enclosures: Health Inspection Report

INDUSTRIAL SAFETY AND HEALTH
800 S.W. Jackson Suite 1500, Topeka, KS 66612-1200 • phone (785) 296-4386 • fax (785) 296-1775

Kansas Department of Labor
Industrial Safety and Health Section

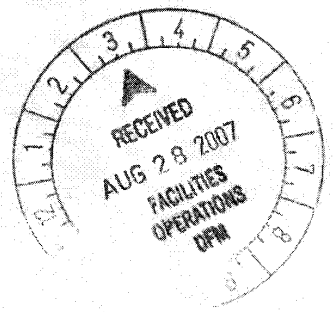
INDUSTRIAL SAFETY/HEALTH INSPECTION NOTICE

No recommendations are being made as a result of this complaint in facilities under your jurisdiction.

Docking Building **Inspection Number: 865708002**

Summary of Complaint:

Employees in the Docking State Office Building located at 915 SW Harrison St. in Topeka, KS were complaining of a solvent odor on the 5th floor due to a recent remodeling project. Employees were also complaining of headaches due to inhaling fumes from a welding project that was occurring in the sub-basement level of the building.



SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

Kansas Department of Labor
Industrial Safety and Health
800 SW Jackson, Suite 1500
Topeka, KS 66612-1200
Phone: 785-296-4386
FAX: 785-296-1775
www.dol.ks.gov

Inspection Number: 865708002

INDOOR AIR QUALITY ASSESSMENT REPORT

EXECUTIVE SUMMARY

This report provides the results of an Indoor Air Quality Health Inspection of the Docking State Office Building located 915 Harrison St. in Topeka, KS. On July 24, 2007 Helen Cook, Certified Industrial Hygienist, and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an indoor air quality inspection, in response to employee concerns relative to indoor air quality to determine if any unhealthy conditions were present relative to indoor air quality. The inspection consisted of a visual inspection and a review of material safety data sheets (MSDSs). At the time of the inspection the Kansas Department of Labor found no problem regarding indoor air quality at Docking State Office Building facility.

Visual Inspection

On July 24, 2007, the Kansas Department of Labor conducted a visual inspection of the Docking State Office Building due to a complaint regarding fume and solvent odors. The facility is located at 915 Harrison St., in Topeka, Kansas. Prior to the inspection, Ms. Betsy Gaydess, Industrial Hygiene Consultant Trainee and Helen Cook, Certified Industrial Hygienist met with Mr. Dan Balch, Facilities Operation Manager and Mr. Kevin Fulton, Public Service Administrator II, to discuss the nature of the complaint. It was learned that a contractor had been hired to perform welding and cutting work in the sub-basement area of the building. Employees were concerned with the odors associated with this work. Also, the old carpet of an area on the 5th floor of the building had been removed and the floor beneath had been stripped to remove the residual glue from the former carpet. Employees were concerned with the solvent odors associated with the floor stripping process.

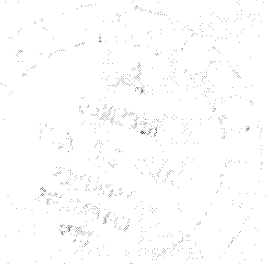
The walkthrough of the building began in the sub-basement where the contractor was observed performing the cutting and welding work. The indoor atmosphere in this area was initially found to be smoky and hazy at the time of entrance. However, large fans were present in the work area and it was deemed that ventilation of the area was satisfactory for the type of work being performed. Also, it was noted that no State of Kansas employee was asked to work in the sub-basement for extended periods of time while the work was being performed. The sub-basement area is vented outside; these vents are located at the south side of the building and are protected by a large grate. Employees located near the south side of the building were complaining of headaches. Helen Cook recommended that carbon monoxide monitors be placed in the rooms of the south side of the building to ensure that employees are not being exposed to carbon monoxide being exhausted through these vents. The welding project was expected to be finished shortly.

Employees were concerned with welding and cutting fumes when walking through the hallway of the basement area. A walkthrough of this hallway was performed; no odor was noted at the time of the walkthrough.

An inspection of the 5th floor of the Docking Building was performed to investigate the complaint regarding the presence of solvent fumes. It was explained to the KDOL representatives that carpet had been removed from the 5th floor recently and that it had been necessary to strip the floor to remove the residual glue. Helen Cook and Betsy Gaydess were then provided with copies of the material safety data sheets (MSDSs) of the chemicals that were used to strip the floors. Helen Cook did not think a problem existed with the chemicals used in this process. The stripping process had been finished at the time of the inspection. It was deemed at that the time of the inspection, no problem concerning solvent fumes existed.

Conclusion

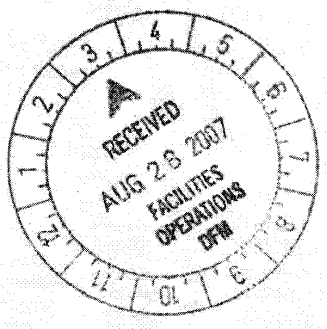
At the time this inspection was conducted, KDOL determined that no state employees were being exposed to harmful fumes from the welding process occurring in the sub-basement or harmful solvent vapors from the stripping process. However, KDOL does suggest the installation of carbon monoxide detectors in rooms in the south side of the Docking Building to ensure that employees are not being exposed to elevated levels of carbon monoxide due to the exhaust vent located directly outside of the windows at this location.



KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary

www.dol.ks.gov



August 9, 2007

Mr. Dan Balch
Department of Administration
Division of Facilities Management
Landon State Office Building
900 SW Jackson St. Room 653
Topeka, KS 66612

Inspection Number: 865708002

Mr. Balch:

On July 24, 2007, Helen Cook, Certified Industrial Hygienist and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an on-site inspection of your facilities to determine if possible unsafe or unhealthy working conditions might be present due to a specific complaint received in our department. This inspection was conducted under the authority granted the Secretary of Kansas Department of Labor by K.S.A. 44-636. A summary of findings follows on the Inspection Notice. We are pleased to report that no hazards were found as a result of the inspection.

It is our goal to continue to reduce the number of persons injured on the job in Kansas. With people like yourself assisting us, our attainment of that goal is made easier.

Again, thanks for your cooperation in this endeavor. If we may be of further assistance, please do not hesitate to contact this office.

Should you need any additional assistance or clarification regarding any of the enclosed findings, please contact this office or Helen Cook, Certified Industrial Hygienist, who visited your place of employment.

"You can obtain information about our upcoming Safety & Health Conference by going to our website at: www.dol.ks.gov, or by calling Dena Ackors at (785) 296-4386."

Sincerely,

Steve Zink, CSP
Director, Industrial Safety & Health

SZ: hc; bag
Enclosures: Health Inspection Report

INDUSTRIAL SAFETY AND HEALTH
800 S.W. Jackson Suite 1500, Topeka, KS 66612-1200 • phone (785) 296-4386 • fax (785) 296-1775

Kansas Department of Labor
Industrial Safety and Health Section

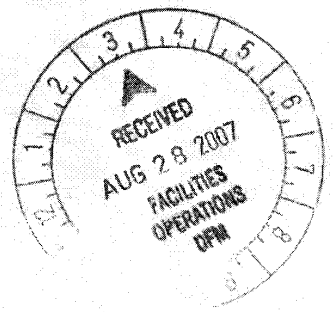
INDUSTRIAL SAFETY/HEALTH INSPECTION NOTICE

No recommendations are being made as a result of this complaint in facilities under your jurisdiction.

Docking Building **Inspection Number: 865708002**

Summary of Complaint:

Employees in the Docking State Office Building located at 915 SW Harrison St. in Topeka, KS were complaining of a solvent odor on the 5th floor due to a recent remodeling project. Employees were also complaining of headaches due to inhaling fumes from a welding project that was occurring in the sub-basement level of the building.



SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

Kansas Department of Labor
Industrial Safety and Health
800 SW Jackson, Suite 1500
Topeka, KS 66612-1200
Phone: 785-296-4386
FAX: 785-296-1775
www.dol.ks.gov

Inspection Number: 865708002

INDOOR AIR QUALITY ASSESSMENT REPORT

EXECUTIVE SUMMARY

This report provides the results of an Indoor Air Quality Health Inspection of the Docking State Office Building located 915 Harrison St. in Topeka, KS. On July 24, 2007 Helen Cook, Certified Industrial Hygienist, and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an indoor air quality inspection, in response to employee concerns relative to indoor air quality to determine if any unhealthy conditions were present relative to indoor air quality. The inspection consisted of a visual inspection and a review of material safety data sheets (MSDSs). At the time of the inspection the Kansas Department of Labor found no problem regarding indoor air quality at Docking State Office Building facility.

Visual Inspection

On July 24, 2007, the Kansas Department of Labor conducted a visual inspection of the Docking State Office Building due to a complaint regarding fume and solvent odors. The facility is located at 915 Harrison St., in Topeka, Kansas. Prior to the inspection, Ms. Betsy Gaydess, Industrial Hygiene Consultant Trainee and Helen Cook, Certified Industrial Hygienist met with Mr. Dan Balch, Facilities Operation Manager and Mr. Kevin Fulton, Public Service Administrator II, to discuss the nature of the complaint. It was learned that a contractor had been hired to perform welding and cutting work in the sub-basement area of the building. Employees were concerned with the odors associated with this work. Also, the old carpet of an area on the 5th floor of the building had been removed and the floor beneath had been stripped to remove the residual glue from the former carpet. Employees were concerned with the solvent odors associated with the floor stripping process.

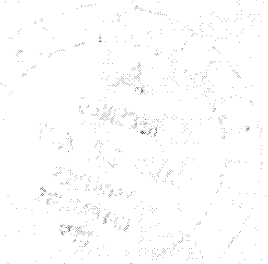
The walkthrough of the building began in the sub-basement where the contractor was observed performing the cutting and welding work. The indoor atmosphere in this area was initially found to be smoky and hazy at the time of entrance. However, large fans were present in the work area and it was deemed that ventilation of the area was satisfactory for the type of work being performed. Also, it was noted that no State of Kansas employee was asked to work in the sub-basement for extended periods of time while the work was being performed. The sub-basement area is vented outside; these vents are located at the south side of the building and are protected by a large grate. Employees located near the south side of the building were complaining of headaches. Helen Cook recommended that carbon monoxide monitors be placed in the rooms of the south side of the building to ensure that employees are not being exposed to carbon monoxide being exhausted through these vents. The welding project was expected to be finished shortly.

Employees were concerned with welding and cutting fumes when walking through the hallway of the basement area. A walkthrough of this hallway was performed; no odor was noted at the time of the walkthrough.

An inspection of the 5th floor of the Docking Building was performed to investigate the complaint regarding the presence of solvent fumes. It was explained to the KDOL representatives that carpet had been removed from the 5th floor recently and that it had been necessary to strip the floor to remove the residual glue. Helen Cook and Betsy Gaydess were then provided with copies of the material safety data sheets (MSDSs) of the chemicals that were used to strip the floors. Helen Cook did not think a problem existed with the chemicals used in this process. The stripping process had been finished at the time of the inspection. It was deemed at that the time of the inspection, no problem concerning solvent fumes existed.

Conclusion

At the time this inspection was conducted, KDOL determined that no state employees were being exposed to harmful fumes from the welding process occurring in the sub-basement or harmful solvent vapors from the stripping process. However, KDOL does suggest the installation of carbon monoxide detectors in rooms in the south side of the Docking Building to ensure that employees are not being exposed to elevated levels of carbon monoxide due to the exhaust vent located directly outside of the windows at this location.



APEX ENVIRONMENTAL CONSULTANTS, INC.

4800 College Boulevard. • Overland Park, Kansas 66211 • (913) 338-2739 • FAX (913) 338-2741

FAX COVER SHEET

Wednesday, April 12, 2000

Project: Docking State Office Building
Environmental Fungi Testing

Project #: Proposal

To:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator

FAX No.: (785) 368-6307

From: Chris Frey

This transmittal consists of ~ 3 *pages, including this cover page. If you do not receive all pages, please notify our office.*

Notes:

Attached please find the proposal you requested for fungi testing services. Please review the proposal at your convenience and do not hesitate to call me if you have any questions. I'll be in a training class all day tomorrow, so the best way to reach me will be via cell phone at (913) 481-7373. If I don't answer right away, leave a message and I'll call you back during a break. Thanks Dennis!

APEX ENVIRONMENTAL CONSULTANTS, INC.

Rising to the Top

PHONE: (913) 338-APEX
(913) 338-2739
FAX: (913) 338-2741
E-MAIL: apex@4apex.com

April 12, 2000

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612-2210

VIA FAX: (785) 368-6307

RE: Environmental Fungi Sampling
Docking State Office Building
APEX Proposal #0044

Dear Mr. Buelt:

APEX Environmental Consultants, Inc. (APEX) is pleased to submit the following proposal for microbiological surface sampling in response to our conversation earlier today. It is understood that this work has been initiated at your request as a result of the presence of what appears to be visible fungal growth inside of the lined ductwork at Docking State Office Building.

The purpose of the investigation is to determine whether environmental fungi is growing inside of the ducts and/or air handling units. Bulk and/or tape lift samples will be collected from the visible fungal growth in an effort to verify the species of fungi. It is anticipated that approximately four (4) samples will be collected.

If, during the site investigation, it is determined that the substance inside of the HVAC systems is not fungal growth, APEX will make recommendations for appropriate sampling and analysis of the material(s). APEX will come prepared to perform such sampling, if determined necessary.

The cost for the aforementioned services will be a not-to-exceed fee of $600.00. Fees include all sampling time and materials, as well as an accompanying project report. This fee is pursuant to those listed in our on-call indefinite delivery contract with Division of Architectural Services.

APEX appreciates the opportunity to propose on this project. After your review of this proposal, if there are any questions, please feel free to contact me. If this proposal is

acceptable, please provide your written authorization in the space below. APEX will schedule fieldwork upon receipt of this signed proposal.

Respectfully submitted,
APEX Environmental Consultants, Inc.

Christopher S. Frey, CIE
Vice President

AGREED TO THIS _____ DAY OF _____, 2000

BY: _____.

TITLE: _____.

FIRM: _____.

KLEINFELDER
EXPECT MORE®

November 28, 2007

Mr. George Werth, Chief Engineer
State of Kansas Division of Facilities Management
900 SW Jackson Street, Room 600
Topeka, Kansas 66612-2210

RE: Air Quality Screening
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 78215, Task 12

Dear Mr. Werth:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne volatile organic chemicals (VOC's) in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On November 7, 8 and 13, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces and the south hallway.

Kleinfelder personnel established a limited sampling protocol for VOC's in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), and the hallway. Several areas of concern within the offices were sampled as areas of possible sources for indoor air quality (IAQ) contaminants. Those areas included: the southeast office suite (the southeast office suite is made up of the Directors office, cubicle spaces and a storage room, the following references to specific spaces are for general space indications), in Carmen's office, east side by air handler, near desk, near conference table, west wall, and inside the wall access hatch; the former storage room, Kelli's office, Lisa & Marty's office, Bonnie's office; hallway, pipe chase and drinking fountain drain. A photo-ionization detector (PID) was used to count the number of reactive chemical molecules in the air and record the quantity in calculated parts per million (PPM).

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

The instrument calculates and records in units of PPM, the average value of reactive gasses in the air and the peak value of any sampling period. The average value recorded for all of the sampling locations was 0.0 PPM. Several peak levels were recorded for known materials within some of the sample locations. See Table 1 – Air Sampling Results Summary.

Sampling Results

Air samples were collected and recorded in the instrument. Sample Numbers are generated by the instrument. The results are summarized below.

Table 1
Air Sampling Results Summary

Sample No.	Location	Average Count PPM	Peak value PPM	Known Material
87	Carmen's office, east side air unit	0.0	0.0	N/A
88	Carmen's desk	0.0	0.0	N/A
89	Conference table	0.0	24	Marker
90	Carmen's office, west wall	0.0	0.0	N/A
91	Break room	0.0	0.0	N/A
92	Marker	0.0	24.3	Marker
93	Break room floor	0.0	0.0	N/A
94	Store room / Kelli's office	0.0	54	Hand gel / nail polish
95	Lisa / Marty office	0.0	34	Lotion
96	Bonnie's office	0.0	0.0	N/A
97	Carmen's office p.m.	0.0	0.0	N/A
98	Carmen's office 11/13	0.0	0.0	N/A
99	South air handler	0.0	0.0	N/A
100	Marker	0.0	28	Marker
101	Carmen's office southwest corner	0.0	0.0	N/A
102	Lamp alarm	0.0	0.0	N/A
103	Hall pipe chase	0.0	0.0	N/A
104	Drinking fountain drain	0.0	0.0	N/A

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Findings

Based on instrument results of air samples for VOC counts, no unknown sources of VOC were identified. A few known sources of VOC were identified (hand gel, nail polish, lotions and markers), which is typically expected. The average level of VOC for the sampling time periods was 0.0 PPM.

The air sampling results indicate no evidence of unknown VOC in the office spaces of the 1st floor.

Based on interviews, the presence of an unknown/difficult to describe odor/sensation exists in the spaces observed.

The evidence compiled by this VOC screening, along with the results of previous mold sampling and other observations, does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our interviews, observations and testing results, we make the following recommendations:

- Thoroughly clean and disinfect the carpets and upholstery. We recommend steam extraction, followed by HEPA vacuuming after the carpet is completely dry.
- Use exceptional quality filters for the air in the spaces to collect any particulate material.
- Continue monitoring carbon monoxide and carbon dioxide levels. We recommend periodic twenty-four hour monitoring.

This VOC screening was conducted using a PID. The PID instrument samples the ambient air and ionizes any available molecules within a specific range of electro-photo ionization and records those ionization events. Other materials may be present that are beyond the ionization potential of the instrument. Those materials include, but are not limited to, particulates, simple gasses, (CO_2, CO, No_2, etc.) and inorganic chemicals.

If conditions persist after the recommended actions have been completed, additional assessment parameters may be discussed. We will be open to explore additional avenues of evaluation including possible dust identification, specific air analysis, general air analysis biological assessment or other parameters.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the air quality screening, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

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This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

KLEINFELDER
EXPECT MORE®

October 2, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

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Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria*, Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

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Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Pericoma / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Trichoderma								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien, Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #ST-RS-05.07 1/1LM

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	Sampling Method:	Air-O-Cell
Address:	1601 SW 41st Street	Analytical Method:	Spore Trap Analysis-102
	Topeka, KS 66609	CEI Lab Code:	107-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		Date Reported:	9/26/2007
Project Site:	KS Doc	Analyzed By:	Ed O'Brien

CEI Sample ID	M20802	M20803	M20804	
Client Sample ID	5	6	7	
Location	Store	Hallway	BLANK	
Volume (L)	150	150	N/A	
Debris Rating	Moderate	Heavy		
Pollen count	4	6		
Mycelial fragments	3	19		

	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts, Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Trichoderma								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

No Mold Detected

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien, Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #S1RS 05 07 1/1LM

I07.0915 (7)
M20798-M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID#	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
11	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T M Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐ Explanation:

KLEINFELDER
EXPECT MORE®

November 30, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

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Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria,* Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

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Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	**I07-0915**
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	**1**		**2**		**3**		**4**	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Ulocladium								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #STRS.05.07.1/1LM

JCSBC
2-2-2016
<<Att.7.--284

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air-O-Cell
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	5		6		7			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces/Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Ulocladium								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.			**No Mold Detected**	
The Sample(s) in this report was/were received in acceptable condition.				

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
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I07.0915 (7)
M20798.M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID #	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
11	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel Off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T V Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐	Explanation:

JCSBC
2-2-2016
<<Att.7.--286

KLEINFELDER
An employee owned company

July 18, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
9th Floor Offices
Docking State Office Building
915 SW Harrison Street
Topeka, Kansas
Kleinfelder Project No. 59382 Task 1

Dear Mr. Balch:

Kleinfelder has completed the authorized limited mold air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of mold in the air in the above referenced offices.

Scope of Services

At the direction of DFM personnel, specific areas of the offices were observed and sampled. Observations of reported water-affected areas were conducted. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On July 7, 2005, in the company of DFM personnel, the affected rooms and spaces were observed. These rooms included the northeast corner office, east window spaces and west window spaces. Indications of colonial mold growth were not visually observed in the offices or spaces.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, the conference room (a presumed non-affected area), the hallway near the elevators and outdoors and sent to an accredited laboratory for analysis. (See Table 1 Sample Locations.) Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Findings and Conclusions

Active colonial growth of molds was not visually observed during the site reconnaissance. Air samples were collected and sent for accredited laboratory analysis. The laboratory report indicates that spores were analytically confirmed in all four (4) of the samples. The results are summarized below.

Table 1
Air Sample Locations

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
S 1	Northeast office / 150 L	*Alternaria*	2	2,214
		Ascospores	10	
		Basidiospores	150	
		Cladosporium	120	
		Other Colorless	2	
		Other Brown	1	
		Penicillium / Aspergillus	40	
		Smuts, *Myxomycetes, Periconia*	4	
		Other	3	
S 2	East center cubicles, east window / 210 L	*Alternaria*	0	726
		Ascospores	6	
		Basidiospores	72	
		Cladosporium	60	
		Other Colorless	1	
		Other Brown	0	
		Penicillium / Aspergillus	10	
		Smuts, *Myxomycetes, Periconia*	2	
		Other	1	
S 3	West center cubicles, west window / 150 L	*Alternaria*	1	461
		Ascospores	0	
		Basidiospores	52	
		Cladosporium	10	
		Other Colorless	1	
		Other Brown	2	
		Penicillium / Aspergillus	2	
		Smuts, *Myxomycetes, Periconia*	1	

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
S 4	Conference room / 150 L	*Alternaria*	1	449
		Ascospores	4	
		Basidiospores	34	
		Cladosporium	16	
		Other Colorless	1	
		Other Brown	3	
		Penicillium / Aspergillus	4	
		Smuts, *Myxomycetes, Periconia*	3	
		Other	1	
S 5	Hallway, near elevator / 150 L	*Basidiospores*	8	67
		Cladosporium	1	
		Penicillium / Aspergillus	1	
S 6	Outdoors / 180 L	*Alternaria*	168	19,446
		Ascospores	140	
		Basidiospores	700	
		Bipolaris / Drechslera	10	
		Cladosporium	2,100	
		Epicoccum	28	
		Fusarium	4	
		Nigrospora	1	
		Other Colorless	8	
		Other Brown	4	
		Penicillium / Aspergillus	84	
		Rusts	2	
		Smuts, *Myxomyctets, Periconia*	196	
		Stemphylium	1	
		Torula	6	
		Other	48	

Penicillium / Aspergillus, are related genera that cannot be reliably distinguished from each other by spore type alone.

The laboratory report is included in Appendix A. The results indicate no evidence of mold spore bioamplification. The spore counts in the samples obtained within the building were markedly lower than the outdoor counts indicating satisfactory performance of the HVAC system.

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Based on the test results, the source(s) contributing to the reported questionable indoor air quality does not appear to be fungal spores. Although operation and maintenance procedures should continue to prevent and control moisture intrusion which can potentially lead to mold growth, evidence of mold spore bioamplification was not identified at the time of this sampling event.

The conclusions presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, expressed or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully Submitted

KLEINFELDER

For

Thomas W. Brennan
Industrial Hygiene Technician

Rowley R. Tedlock
Environmental Services Manager

Attachment

TWB/RRT:kr

cc: Kevin Fulton, Resource Management Office Services

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable (Spore Trap) Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

July 13, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L205742-01	L205742-02	L205742-03	L205742-04
Client Sample Id:	S1	S2	S3	S4
Location:	S1	S2	S3	S4
Project # :	DFM D #9	DFM D #9	DFM D #9	DFM D #9
Collect Date:	07/07/05	07/07/05	07/07/05	07/07/05
Receive Date:	07/08/05	07/08/05	07/08/05	07/08/05
Analyzed Date:	07/13/05	07/13/05	07/13/05	07/13/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume (liters)	150		210		150		150	
Background Debris*	Moderate		Moderate		Moderate		Moderate	
Limit of Detection (spores)	<2		<2		<2		<1	
Alternaria	2	13			1	7	1	7
Ascospores	10	67	6	29			4	27
Aureobasidium								
Basidiospores	150	1,000	72	343	52	347	34	227
Bipolaris/Drechslera								
Botrytis								
Chaetomium								
Cladosporium	120	800	60	286	10	67	16	107
Curvularia								
Epicoccum								
Fusarium								
Nigrospora								
Other Colorless	2	13	1	5	1	7	1	7
Other Brown	1	7			2	13	3	20
Penicillium/Aspergillus	40	267	10	48	2	13	4	27
Rusts								
Smuts, Myxomycetes, Periconia	4	27	2	10	1	7	3	20
Stachybotrys chartarum								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Other:								
Cercospora	2	13						
Pithomyces	1	7						
Scopulariopsis			1	5				
Zygophiala							1	7
Polythrincium								
Arthrinium								
Total Spores/m3		2,214		726		461		449

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

July 13, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L205742-05	L205742-06	L205742-07
Client Sample Id:	S5	S6	S7
Location:	S5	S6	BLANK
Project # :	DFM D #9	DFM D #9	DFM D #9
Collect Date:	07/07/05	07/07/05	07/07/05
Receive Date:	07/08/05	07/08/05	07/08/05
Analyzed Date:	07/13/05	07/13/05	07/13/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		180		Not applic	
Background Debris*	Moderate		Heavy		N/A	
Limit of Detection (spores)	<1		<4		<1	
Alternaria			168	933		
Ascospores			140	778		
Aureobasidium						
Basidiospores	8	53	700	3,889		
Bipolaris/Drechslera			10	56		
Botrytis						
Chaetomium						
Cladosporium	1	7	2100	11,667		
Curvularia						
Epicoccum			28	156		
Fusarium			4	22		
Nigrospora			1	6		
Other Colorless			8	44		
Other Brown			4	22		
Penicillium/Aspergillus	1	7	84	467		
Rusts			2	11		
Smuts,Myxomycetes,Periconia			196	1,089		
Stachybotrys chartarum						
Stemphylium			1	6		
Torula			6	33		
Ulocladium						
Zygomycetes						
Other:						
Cercospora			42	233		
Pithomyces						
Scopulariopsis			2	11		
Zygophiala						
Polythrincium			1	6		
Arthrinium			3	17		
Total Spores/m3		67		19,446		

Claudia Zimmerman

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

Summary of Remarks For Samples Printed
07/13/05 at 17:12:01

TSR Signing Reports: 051
R4 - Required TAT

Sample: L205742-01 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-02 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-03 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-04 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-05 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-06 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-07 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

KLEINFELDER
An employee owned company

October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
11th Floor Offices
Docking State Office Building
915 SW Harrison Street
Topeka, Kansas
Kleinfelder Project No. 59382 Task 3

Dear Mr. Balch:

Kleinfelder has completed the authorized limited mold air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of mold in the air in the above referenced offices.

Scope of Services

At the direction of DFM personnel, specific areas of the offices were observed and sampled. Observations of reported water-affected areas were conducted. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On October 6, 2005, in the company of DFM personnel, the affected rooms and spaces were observed. These rooms included the south office area, Lisa's office, Jill P. cubicle, classroom, and outdoors. Indications of colonial mold growth were not visually observed in the offices or spaces.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, the classroom (a presumed non-affected area), and outdoors and sent to an accredited laboratory for analysis. (See Table 1 Sample Locations) Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 3

Findings and Conclusions

Active colonial growth of molds was not visually observed during the site reconnaissance. Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all five (5) of the samples. The results are summarized below.

Table 1
Air Sample Locations

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
1	South office near copier / 150 L	*Alternaria* *Basidiospores* *Cladosporium* *Epicoccum* *Penicillium / Aspergillus*	1 4 3 1 1	68
2	Lisa's office / 210 L	*Basidiospores* *Cladosporium* Rusts Smuts, *Myxomycetes, Periconia*	1 10 2 1	94
3	Jill P. cubicle / 150 L	*Basidiospores* *Cladosporium* Smuts, *Myxomycetes, Periconia*	6 4 8	120
4	Classroom/ 150 L	*Alternaria* *Basidiospores* *Cladosporium* *Penicillium / Aspergillus* Rusts Smuts, *Myxomycetes, Periconia*	1 2 1 12 2 1	127
5	Outdoors / 180 L	*Alternaria* *Ascospores* *Basidiospores* *Bipolaris / Drechslera* *Cladosporium* *Curvularia*	32 24 96 4 640 1	6,826

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		Epicoccum	8	
		Fusarium	2	
		Nigrospora	2	
		Other Colorless	32	
		Other Brown	2	
		Penicillium / Aspergillus	48	
		Rusts	5	
		Smuts, *Myxomyctets, Periconia*	112	
		Torula	2	
		Other	14	

Penicillium / Aspergillus, are related genera that cannot be reliably distinguished from each other by spore type alone.

The laboratory report is included in Appendix A. The results indicate no evidence of mold spore bioamplification. The spore counts in the samples obtained within the building were markedly lower than the outdoor counts indicating satisfactory performance of the HVAC system.

Based on the test results, the source(s) contributing to the reported questionable indoor air quality does not appear to be fungal spores. Although operation and maintenance procedures should continue to prevent and control moisture intrusion which can potentially lead to mold growth, evidence of mold spore bioamplification was not identified at the time of this sampling event.

The conclusions presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, expressed or implied, is intended or made.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 3

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Industrial Hygiene Technician

Rowley R. Tedlock
Environmental Services Manager

Attachment

TWB/RRT:kr

cc: Kevin Fulton, Resource Management Office Services

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

October 12, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L217962-01	L217962-02	L217962-03	L217962-04
Client Sample Id:	1	2	3	4
Location:	S End Near Copy	Lisa Office	Jill P Cube	Classroom
Project # :	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11
Collect Date:	10/06/05	10/06/05	10/06/05	10/06/05
Receive Date:	10/10/05	10/10/05	10/10/05	10/10/05
Analyzed Date:	10/12/05	10/12/05	10/12/05	10/12/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		150		150		150	
Background Debris*	Light		Light		Moderate		Light	
Limit of Detection (spores)	<1		<1		<1		<1	
Alternaria	1	7					1	7
Ascospores								
Aureobasidium								
Basidiospores	4	27	1	7	6	40	2	13
Bipolaris/Drechslera								
Botrytis								
Chaetomium								
Cladosporium	3	20	10	67	4	27	1	7
Curvularia								
Epicoccum	1	7						
Fusarium								
Nigrospora								
Other Colorless								
Other Brown								
Penicillium/Aspergillus	1	7					12	80
Rusts			2	13			2	13
Smuts,Myxomycetes,Periconia			1	7	8	53	1	7
Stachybotrys chartarum								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Other:								
Pithomyces								
Cercospora								
Scopulariopsis								
Oidium								
Total Spores/m3		68		94		120		127

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

October 12, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L217962-05	L217962-06
Client Sample Id:	5	BLANK
Location:	Outdoors	Blank
Project # :	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11
Collect Date:	10/06/05	10/06/05
Receive Date:	10/10/05	10/10/05
Analyzed Date:	10/12/05	10/12/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		Not applic	
Background Debris*	Heavy		N/A	
Limit of Detection (spores)	<4		<1	
Alternaria	32	213		
Ascospores	24	160		
Aureobasidium				
Basidiospores	96	640		
Bipolaris/Drechslera	4	27		
Botrytis				
Chaetomium				
Cladosporium	640	4,267		
Curvularia	1	7		
Epicoccum	8	53		
Fusarium	2	13		
Nigrospora	2	13		
Other Colorless	32	213		
Other Brown	2	13		
Penicillium/Aspergillus	48	320		
Rusts	5	33		
Smuts,Myxomycetes,Periconia	112	747		
Stachybotrys chartarum				
Stemphylium				
Torula	2	13		
Ulocladium				
Zygomycetes				
Other:				
Pithomyces	2	13		
Cercospora	10	67		
Scopulariopsis	1	7		
Oidium	1	7		
Total Spores/m3		6,826		

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

Company Name/Address: Kleinfelder Topeka

Alternate billing information:

Mail to:

Email to:

Project Description: Docking Bld. 11TH Floor

Phone:

FAX:

Client Project #: 59382 - T3

Collected by (print):

P.O.#:

Collected by (signature): T Brennan

Rush? (Lab MUST Be Notified)
____ Same Day. . . . . 2 X
____ Next Day. . . . . 1.75 X
____ Two Day . . . . . 1.5 X

Date Results Needed:

Email? __No X Yes

FAX? __No__Yes

Analysis Requested

Sample ID	Sample Description	Type *	Volume or Area	Date	Time	SPORE TRAP	DIRECT EXAM	QUANTITATIVE FUNGAL	CULTURABLE AIR FUNGI (ANDERSEN)	QUANTITATIVE BACTERIA	CULTURABLE AIR BACTERIA	E. COLI / COLIFORM (presence/absence)	ENTEROCOCCUS (presence/absence)	Remarks/	Sample # (lab only)
1	S. End, Near Copier	ST	150L	10/6		X									271982-01
2	Lisa's Office	ST	150			X									02
3	Jill P. Cube	ST	150			X									03
4	Classroom	ST	150			X									04
5	Outdoors	ST	150			X									05
Blank		ST	—			X									06

*Type = **Tape** - Tapelift , **Bulk** - Bulk , **Swab** - Swab , **CP** - Contact Plate , **SS** - Soil, **W** - Water , **ST** - Spore Trap : Allergenco, Zefon, (Air -O -Cell), **AF** - Andersen Fungal , **AB** - Andersen Bacterial

Comments: 3502 7552 1057

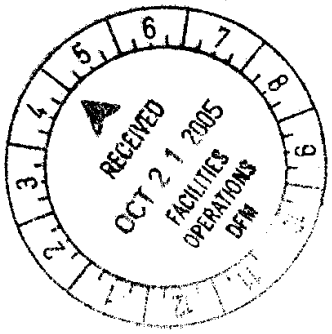
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: (lab use only)
T Brennan	10/7	12:00			
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Temp: Amb	Containers Received: 6
Relinquished by (Signature)	Date:	Time:	Received for lab by (Signature)	Date: 10/10/05	Time: 9:00
				pH Checked:	NCF:

Chain of Custody Page ___ of ___

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

CoCode: (lab use only)
Template/Prelogin
Shipped Via:

KLEINFELDER
An employee owned company



October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Mold Testing and Site Observations
Docking State Office Building
11th Floor - South
Topeka, Kansas
Proposal No TEV05073

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited mold testing services and site observations at the above referenced location in Topeka, Kansas. We understand that suspect mold has been reported in the office spaces, and observed on piping located in mechanical areas of the building, and sampling of the air is requested. In addition, observations of the site are requested in order to assess the origin of the moisture intrusions.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Based on experience and preliminary observations of the spaces involved, we anticipate five (5) air samples would be collected: three (3) in the effected areas, one (1) in a non-effected area, and one (1) outdoors.

B. Provide a Senior Staff Professional to observe the site.

C. Provide a written report documenting the findings and conclusions of the Mold testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L: 2005\Proposals\TOP5P315

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

The estimated fees for the services are itemized as follows:

Project Professional II	$ 750.00
Air Monitoring for Mold (Analytical)	$ 400.00
Summary Report	$ 500.00
Estimated Fee	$ 1,650.00

The estimated fee includes collection and analysis of up to five (5) mold air samples. Additional required samples, approved by you, will be billed at a rate of $35.00/sample for surface collection and analysis, $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

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Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the signature blocks below and return a copy to our Topeka office to provide notice-to-proceed.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager

Rowley R. Tedlock
Environmental Services Manager

TWB:RT/kr

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: Dan Galeb (Print name of individual) FOR: Division of Facilities Management (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

D. KEITH MEYERS, DIRECTOR

K A N S A S

DEPARTMENT OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT

KATHLEEN SEBELIUS, GOVERNOR
DUANE A. GOOSSEN, SECRETARY
CAROL L. FOREMAN, DEPUTY SECRETARY

FAX TRANSMITTAL

TO: Thomas W Brennan
Kleinfelder

FAX NO.: (785) 267-7145

FROM: Dan Balch

DATE: October 24, 2005

PAGES: __4___ (Total pages including transmittal cover sheet)

SUBJECT: Proposal No TEV05073

COMMENT:

LANDON STATE OFFICE BUILDING, 900 SW JACKSON ST., STE. 653, TOPEKA, KS 66612-2210
Voice 785-296-8070 Fax 785-296-3456 http://da.state.ks.us/fm

TRANSMISSION VERIFICATION REPORT

TIME : 10/24/2005 11:46
NAME : DIV FACILITIES MNGT
FAX : 7852963456
TEL :
SER.# : BROH4J825065

DATE,TIME	10/24 11:45
FAX NO./NAME	92677145
DURATION	00:00:38
PAGE(S)	04
RESULT	OK
MODE	STANDARD ECM

KLEINFELDER
An employee owned company

January 4, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Abatement Oversight & Clearance Sampling
Kansas Statehouse / Docking Building Tunnel
Topeka, Kansas
Proposal No TEV07001

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited abatement oversight and clearance air sampling assessment services at the above referenced location in Topeka, Kansas. We understand that 9-inch by 9-inch floor tile and mastic is scheduled for removal and project oversight, perimeter air sampling, and clearance sampling of the air is requested. In addition, observations of the site are requested.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Pre-work walk-through.

B. Provide perimeter barrier air monitoring outside the work area.

C. Provide clearance air monitoring at the conclusion of the scheduled work.

D. Provide a Senior Staff Professional to observe the site.

E. Provide a written report documenting the findings and conclusions of the Air Quality testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L:2007\Proposals\TOP7P003

The estimated fees for the services are itemized as follows:

Project Professional II	$ 1,400.00
Air Monitoring (Analytical)	$ 400.00
Summary Report	$ 1,000.00
Estimated Fee	$ 2,800.00

The estimated fee includes collection and analysis of up to fifteen (15) air samples. Additional required samples, approved by you, will be billed at a rate of $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the attached notice-to-proceed and return a copy to our Topeka office.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager
TWB:FDA/kr

Franky D. Arnwine, R.G.
Environmental Group Manager

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: _____ FOR: _____
(Print name of individual) (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

L:2007\Proposals\TOP7P003

KLEINFELDER
EXPECT MORE®

November 30, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria,* Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Ulocladium								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #STRS.05.07.1/1LM

JCSBC
2-2-2016
<<Att.7.--312

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air-O-Cell
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	**I07-0915**
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	**5**		**6**		**7**			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces/Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Ulocladium								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.			**No Mold Detected**	
The Sample(s) in this report was/were received in acceptable condition.				

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
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Form #STRS.05.07.1/1LM

I07.0915 (7)
M20798.M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID #	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
11	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel Off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T V Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐	Explanation:

KLEINFELDER
EXPECT MORE®

November 28, 2007

Mr. George Werth, Chief Engineer
State of Kansas Division of Facilities Management
900 SW Jackson Street, Room 600
Topeka, Kansas 66612-2210

RE: Air Quality Screening
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 78215, Task 12

Dear Mr. Werth:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne volatile organic chemicals (VOC's) in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On November 7, 8 and 13, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces and the south hallway.

Kleinfelder personnel established a limited sampling protocol for VOC's in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), and the hallway. Several areas of concern within the offices were sampled as areas of possible sources for indoor air quality (IAQ) contaminants. Those areas included: the southeast office suite (the southeast office suite is made up of the Directors office, cubicle spaces and a storage room, the following references to specific spaces are for general space indications), in Carmen's office, east side by air handler, near desk, near conference table, west wall, and inside the wall access hatch; the former storage room, Kelli's office, Lisa & Marty's office, Bonnie's office; hallway, pipe chase and drinking fountain drain. A photo-ionization detector (PID) was used to count the number of reactive chemical molecules in the air and record the quantity in calculated parts per million (PPM).

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

The instrument calculates and records in units of PPM, the average value of reactive gasses in the air and the peak value of any sampling period. The average value recorded for all of the sampling locations was 0.0 PPM. Several peak levels were recorded for known materials within some of the sample locations. See Table 1 – Air Sampling Results Summary.

Sampling Results

Air samples were collected and recorded in the instrument. Sample Numbers are generated by the instrument. The results are summarized below.

Table 1
Air Sampling Results Summary

Sample No.	Location	Average Count PPM	Peak value PPM	Known Material
87	Carmen's office, east side air unit	0.0	0.0	N/A
88	Carmen's desk	0.0	0.0	N/A
89	Conference table	0.0	24	Marker
90	Carmen's office, west wall	0.0	0.0	N/A
91	Break room	0.0	0.0	N/A
92	Marker	0.0	24.3	Marker
93	Break room floor	0.0	0.0	N/A
94	Store room / Kelli's office	0.0	54	Hand gel / nail polish
95	Lisa / Marty office	0.0	34	Lotion
96	Bonnie's office	0.0	0.0	N/A
97	Carmen's office p.m.	0.0	0.0	N/A
98	Carmen's office 11/13	0.0	0.0	N/A
99	South air handler	0.0	0.0	N/A
100	Marker	0.0	28	Marker
101	Carmen's office southwest corner	0.0	0.0	N/A
102	Lamp alarm	0.0	0.0	N/A
103	Hall pipe chase	0.0	0.0	N/A
104	Drinking fountain drain	0.0	0.0	N/A

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Findings

Based on instrument results of air samples for VOC counts, no unknown sources of VOC were identified. A few known sources of VOC were identified (hand gel, nail polish, lotions and markers), which is typically expected. The average level of VOC for the sampling time periods was 0.0 PPM.

The air sampling results indicate no evidence of unknown VOC in the office spaces of the 1st floor.

Based on interviews, the presence of an unknown/difficult to describe odor/sensation exists in the spaces observed.

The evidence compiled by this VOC screening, along with the results of previous mold sampling and other observations, does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our interviews, observations and testing results, we make the following recommendations:

- Thoroughly clean and disinfect the carpets and upholstery. We recommend steam extraction, followed by HEPA vacuuming after the carpet is completely dry.
- Use exceptional quality filters for the air in the spaces to collect any particulate material.
- Continue monitoring carbon monoxide and carbon dioxide levels. We recommend periodic twenty-four hour monitoring.

This VOC screening was conducted using a PID. The PID instrument samples the ambient air and ionizes any available molecules within a specific range of electro-photo ionization and records those ionization events. Other materials may be present that are beyond the ionization potential of the instrument. Those materials include, but are not limited to, particulates, simple gasses, (CO_2, CO, No_2, etc.) and inorganic chemicals.

If conditions persist after the recommended actions have been completed, additional assessment parameters may be discussed. We will be open to explore additional avenues of evaluation including possible dust identification, specific air analysis, general air analysis biological assessment or other parameters.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the air quality screening, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

LIMITED INDOOR AIR QUALITY SAMPLING SERVICES

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING – 4TH AND 10TH FLOORS
TOPEKA, KANSAS

PREPARED FOR:

MR. DENNIS BUELT
CAPITOL COMPLEX SAFETY COORDINATOR
KANSAS DIVISION OF FACILITIES MANAGEMENT
LANDON STATE OFFICE BUILDING
900 SW JACKSON STREET, ROOM 653
TOPEKA, KANSAS 66612-2210

PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.
8600 W. 110TH STREET, SUITE 120
OVERLAND PARK, KANSAS 66210
TEL: (913) 338-APEX FAX: (913) 338-2741
WWW.4APEX.COM

CLIENT:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612

PROJECT:

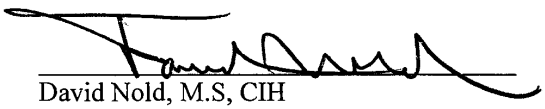
Limited Indoor Air Quality Sampling Services
Docking State Office Building – 4th and 10th Floors
Topeka, Kansas

APEX Project No.40588I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:



David Nold, M.S, CIH
Certified Industrial Hygienist

Address: 8600 W. 110th Street, Suite 120
Overland Park, Kansas 66210
Tel: (913) 338-2739 Fax: (913) 338-2741
e-mail: dnold@4apex.com

1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fourth and tenth floors of the Docking State Office Building on December 14, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually inspect the two floors for visible fungal contamination, and to conduct limited air quality sampling in each prospective area. It is understood that this work was initiated as a result of employee concerns regarding discoloration on the top of some of the convector units. David Nold, of APEX, conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, visible fungal contamination was observed on many of the diffuser grills located on convector units throughout the fourth and tenth floors (see Appendix B, Photo Log). The quantity of contamination ranged from light spotty growth on some of the units, to twenty square inches of light growth on other units. Laboratory results indicate that the visible fungal growth consists of species of Cladosporium, a ubiquitous and common type of fungi observed in the outdoor environment. Cladosporium is most often the predominate airborne species observed in the outdoor environment and is not considered a "toxic mold". However, Cladosporium is considered an allergen.

The main air handling system for the both the fourth and tenth floors was also inspected with no indication of abnormal conditions. The filters appeared to be in good condition and free of excessive dust and/or debris. Additionally, the ceiling diffuser vents associated with the main air handling systems appeared to be relatively clean.

Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology on the fourth and tenth floors of the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at lower concentrations. In other words, it does not appear that the visible fungal growth observed on the convector units is adversely affecting the air quality in the building.

3.0 SAMPLING METHODOLOGY

Seven (7) bioaerosol samples were obtained, including one (1) exterior control sample during the sampling effort. Representative sampling locations were chosen throughout the fourth and tenth floors, as well as an outdoor sample for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of October 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-01	4th floor, north	Zefon	15 L/min – 5 min
Z-02	4th floor, center	Zefon	15 L/min – 5 min
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min
Z-04	10th floor, north	Zefon	15 L/min – 5 min
Z-05	10th floor, center	Zefon	15 L/min – 5 min
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min
Z-07	Exterior Control	Zefon	15 L/min – 5 min

In addition to the bioaerosol samples, six (6) tape lift samples were collected in selected areas exhibiting suspect visible fungal amplification. The tape samples were mounted on clear glass slides, sealed in clean centrifuge tubes, and labeled with an identification number. The surface samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE
T-08	4th floor, east wall, ventilator diffuser	Tape
T-09	4th floor, south wall, ventilator diffuser	Tape
T-10	4th floor, west wall, ventilator diffuser	Tape
T-11	10th floor, east wall, ventilator diffuser	Tape
T-12	10th floor, south wall, ventilator diffuser	Tape
T-13	10th floor, west wall, ventilator diffuser	Tape
T = Tape		

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Diego, California for preparation, incubation, microscopic identification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M^3)	% OF OUTSIDE AIR (CONTROL)
Z-01	4th floor, north	66	19.9%
Z-02	4th floor, center	66	19.9%
Z-03	4th floor, south (Rebecca's Office)	66	19.9%
Z-04	10th floor, north	13	3.9%
Z-05	10th floor, center	13	3.9%
Z-06	10th floor , south (Receivables)	79	23.8%
Z-07	Exterior Control	332	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
T-08	4th floor, east wall, ventilator diffuser	Cladosporium 4+
T-09	4th floor, south wall, ventilator diffuser	Cladosporium 3+
T-10	4th floor, west wall, ventilator diffuser	Cladosporium 3+
T-11	10th floor, east wall, ventilator diffuser	Cladosporium 3+
T-12	10th floor, south wall, ventilator diffuser	Cladosporium 2+
T-13	10th floor, west wall, ventilator diffuser	Cladosporium 2+

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

The building was occupied under normal operating conditions at the time of sampling. Outdoor weather conditions were overcast and raining with a temperature in the mid 30's (degrees Fahrenheit).

Light fungal growth was identified on top of some of the convector units that run along the perimeter walls on both the fourth and tenth floors (see Appendix B, Photo Log). Surface sampling indicates this fungal growth consists of species of Cladosporium. Cladosporium is a ubiquitous type of fungi commonly observed in the outdoor environment and is not considered to be a "toxic mold". Furthermore, based on the

bioaerosol sampling performed, the fungal growth observed on the convector units does not appear to be adversely affecting the air quality. No evidence of abnormal airborne fungal ecology was observed on either the fourth or tenth floors. Nevertheless, fungal growth should not be allowed to grow and amplify in the indoor environment.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, light fungal growth was observed on top of some of the convector units located along the perimeter walls on the fourth and tenth floors of the building. However, based on the air sampling performed, no evidence of abnormal airborne fungal ecology was observed in the affected areas.

Due to the light fungal growth on the top of the convector units, APEX recommends that the units be cleaned in accordance with NADCA standards. Future cleaning of these units should be performed on the current quarterly maintenance schedule.

8.0 CONDITIONS AND LIMITATIONS

Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection

with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS

APEX Environmental Consultants, Inc.

8600 W. 110th Street • Overland Park, KS 66210 • (913) 338-2739 • FAX (913) 338-2741

Sample Chain of Custody

Sample Date: December 14, 2004 **Page:** 1 of 1

Project Name: Docking State Office Building, Topeka, KS **Contact:** David Nold **Project #:** 405881

Sample ID	*Location Description*	*Sample Type*	*Flow Rate/Time*	*Total Volume/Area*	*Notes*
Z-01	4th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-02	4th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min	75 Liters	
Z-04	10th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-05	10th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min	75 Liters	
Z-07	Exterior Control	Zefon	15 L/min – 5 min	75 Liters	
T-08	4th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-09	4th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-10	4th floor, west wall, ventilator diffuser	Tape	NA	NA	
T-11	10th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-12	10th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-13	10th floor, west wall, ventilator diffuser	Tape	NA	NA	

COPY

Additional Instructions:

- Standard Turnaround
- E-mail results to: dnold@4apex.com
- Please Fax results to Attn. Dave at (913) 338-2741
- Send invoice to: Accts. Payable, APEX Environmental Consultants

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-01: 4th floor, north		Z-02: 4th floor, center		Z-03: 4th floor, south (Rebecca's office)		Z-04: 10th floor, north	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	549669-1		549670-1		549671-1		549672-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria								
Arthrinium								
Ascospores*								
Aureobasidium								
Basidiospores*								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	4	53	4	53	4	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13	1	13	1	13		
Other colorless								
Penicillium/Aspergillus types†							1	13
Pithomyces								
Rusts*								
Smuts*, Periconia, Myxomycetes*								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		66		66		66		13

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-05: 10th floor, center		Z-06: 10th floor, south (Receivables)		Z-07: Exterior control	
Comments (see below)	None		None		None	
Lab ID-Version‡:	549673-1		549674-1		549675-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					4	53
Arthrinium						
Ascospores*			1	13		
Aureobasidium						
Basidiospores*			1	13		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	13	4	53	12	160
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown					1	13
Other colorless						
Penicillium/Aspergillus types†					4	53
Pithomyces						
Rusts*					1	13
Smuts*, Periconia, Myxomycetes*					2	27
Stachybotrys						
Stemphylium						
Torula					1	13
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		13		79		332

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Date of Sampling: 12-14-2004
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Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-07: Exterior control

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	53	7 - 27 - 310	55
Ascospores	ND	13 - 160 - 3,200	75
Basidiospores	ND	27 - 370 - 14,000	95
Cladosporium	160	53 - 590 - 7,400	97
Other brown	13	7 - 13 - 93	40
Penicillium/Aspergillus types	53	38 - 210 - 2,600	94
Rusts	13	7 - 13 - 280	20
Smuts, Periconia, Myxomycetes	27	7 - 40 - 630	68
Torula	13	7 - 13 - 170	11
Total	332		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-01: 4th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Cladosporium	53
Other brown	13
Total	66

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-02: 4th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				53
Other brown				13
Total				66

Location: Z-03: 4th floor, south (Rebecca's office)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				53
Other brown				13
Total				66

Location: Z-04: 10th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.5446 Critical value: 0.6786 Outside Similar: No	Score: 101 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Penicillium/Aspergillus types				13
Total				13

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Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-05: 10th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.7321 Critical value: 0.6786 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Cladosporium				13
Total				13

Location: Z-06: 10th floor, south (Receivables)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 23%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.0750 Critical value: 0.5833 Outside Similar: No	Score: 102 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K
Ascospores				13
Basidiospores				13
Cladosporium				53
Total				79

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-07, Exterior control

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: December				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	53	7	22	300	37	13	91	910	69
Bipolaris/Drechslera group	-	7	13	200	12	7	13	80	22
Chaetomium	-	7	13	110	11	7	13	230	10
Cladosporium	160	27	430	6,300	94	51	1,300	19,000	99
Curvularia	-	7	13	460	11	7	13	260	22
Nigrospora	-	7	13	130	9	7	13	150	27
Other brown	13	7	13	80	34	7	20	93	44
Penicillium/Aspergillus types	53	27	210	2,400	93	51	270	3,300	96
Stachybotrys	-	7	13	320	3	7	13	670	4
Torula	13	7	13	93	4	7	13	420	18
Seldom found growing indoors**									
Ascospores	-	13	120	2,100	66	27	420	7,800	85
Basidiospores	-	25	360	12,000	93	51	1,100	17,000	98
Rusts	13	7	13	180	11	7	27	860	30
Smuts, Periconia, Myxomycetes	27	7	27	280	55	11	67	1,000	72
TOTAL SPORES/M3	332								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

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Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

DIRECT MICROSCOPIC EXAMINATION REPORT
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 549676-1: Tape sample T-08: 4th floor, east wall, ventilator diffuser				
Scant	None	4+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549677-1: Tape sample T-09: 4th floor, south wall, ventilator diffuser				
Scant	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549678-1: Tape sample T-10: 4th floor, west wall, ventilator diffuser				
Moderate	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549679-1: Tape sample T-11: 10th floor, east wall, ventilator diffuser				
Moderate	Very few	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549680-1: Tape sample T-12: 10th floor, south wall, ventilator diffuser				
Moderate	None	2+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549681-1: Tape sample T-13: 10th floor, west wall, ventilator diffuser				
Moderate	Few	2+ *Cladosporium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

APPENDIX B
PHOTO LOG

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 1	View of air handling unit in 10th floor mechanical room.

Photo No. 2	View of filters in 10th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 3	View of ceiling air diffuser located on 10th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 10th floor.

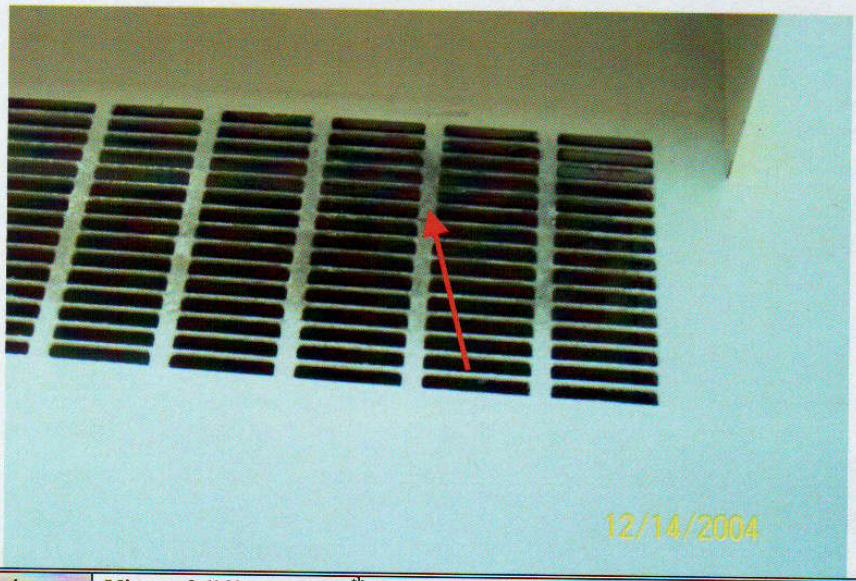

Photo No. 4	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-11.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 5	View inside 10th floor ventilator unit.

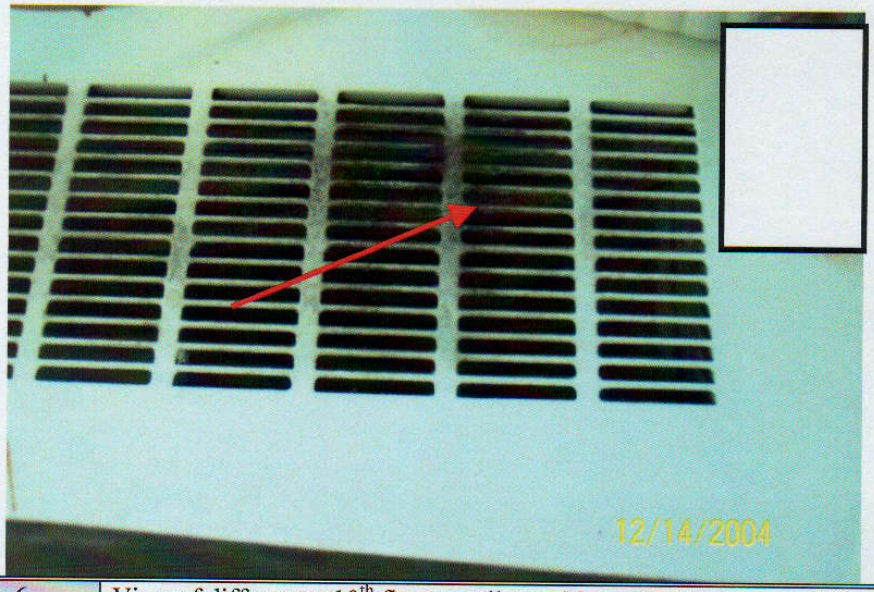

Photo No. 6	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-12.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 7	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-13.

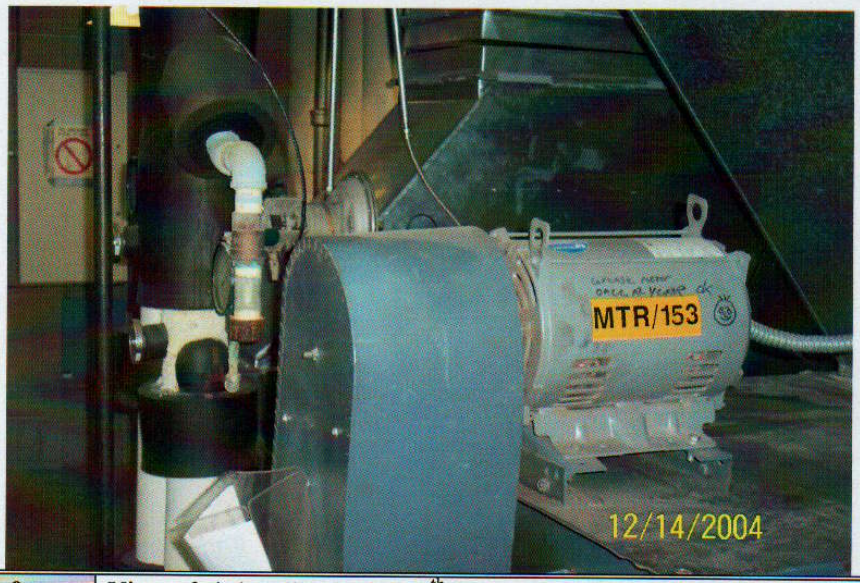

Photo No. 8	View of air handling unit in 4th floor mechanical room.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 9	View of filters in 4th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

Photo No. 10	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-08.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 11	View of ceiling air diffuser located on 4th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 4th floor.

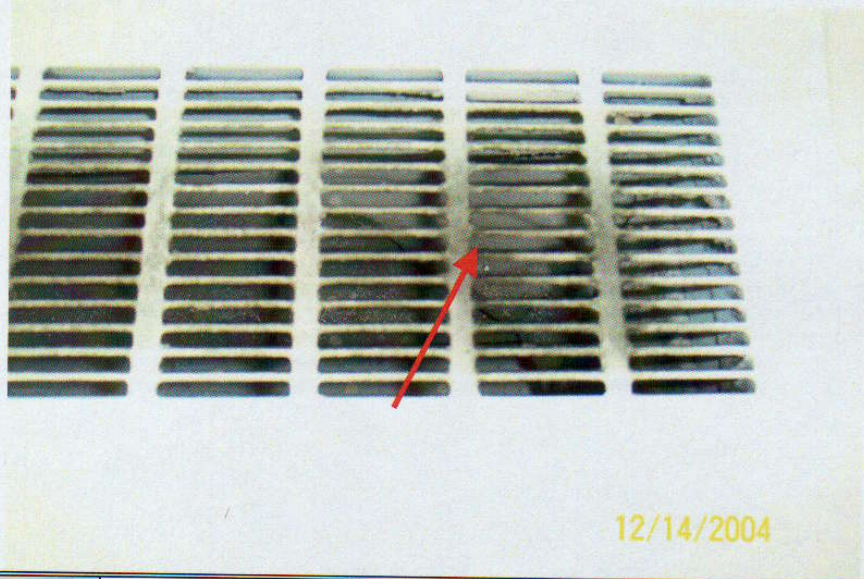

Photo No. 12	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-09.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 13	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-10.

Photo No. 14	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

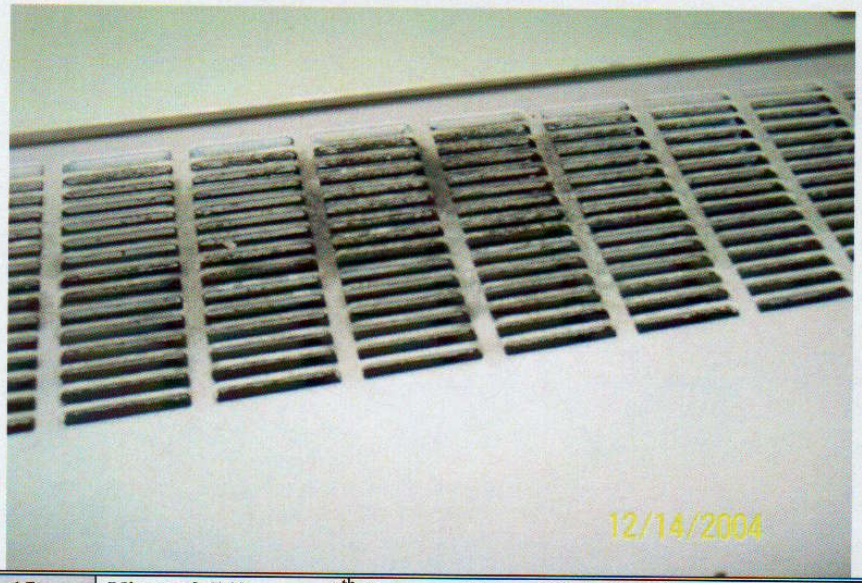

Photo No. 15	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

Photo No. 16	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 17	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

APEX ENVIRONMENTAL CONSULTANTS, INC.

8600 W. 110th Street, Suite 120 • Overland Park, Kansas 66210 • (913) 338-2739 • Fax (913) 338-2741

FAX COVER SHEET

DATE: 10/20/04

TO: JOAN ENGLE

FIRM: KS SELF INS. FUND

CC: _____

PHONE: _____

FAX: (785) 296-6995

- O URGENT
- ⊘ FOR REVIEW
- O FYI
- O PLEASE REPLY
- ⊘ ORIGINALS WILL BE SENT VIA: MAIL
- O THIS IS THE ONLY CORRESPONDENCE THAT WILL BE DELIVERED.

TOTAL NUMBER OF PAGES SENT: 25

SENT BY: CHRIS FREY

Message:

LIMITED FUNGI INVESTIGATION

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING
FIFTH FLOOR
TOPEKA, KANSAS

PREPARED FOR:

MS. JOAN ENGLE
STATE OF KANSAS
DEPARTMENT OF ADMINISTRATION
STATE SELF INSURANCE FUND
900 SW JACKSON, ROOM 920 NORTH
TOPEKA, KANSAS 66612

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APEX PROJECT NO. 40430I
OCTOBER 18, 2004

DOCKING STATE OFFICE BUILDING *TOPEKA, KANSAS*

CLIENT:

Ms. Joan Engle
State of Kansas
Department of Administration
State Self Insurance Fund
900 SW Jackson, Room 920 North
Topeka, Kansas 66612

PROJECT:

Limited Fungi Investigation
Fifth Floor
Docking State Office Building
Topeka, Kansas

APEX Project No.40430I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:

Christopher S. Frey, CIE
Vice President

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1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fifth floor of Docking State Office Building on September 20, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually identify and quantify levels of environmental fungi in the air and on a variety of surfaces on the fifth floor of the building. It is understood that this work was initiated as a result of an employee complaint regarding potential exposure to mold while working in the subject area. Chris Frey conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, no visible fungal growth was observed during the inspection. Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology in the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at generally lower concentrations. Surface samples randomly collected from dust accumulations inside of the perimeter convector system indicated the presence of light fungal growth. Upon visual inspection and review of the analytical data, it is not believed that this growth is contributing to the indoor bioaerosol spore load in the subject area.

3.0 SAMPLING METHODOLOGY

Eleven (11) bioaerosol samples were obtained including two (2) exterior control samples on September 20, 2004. Representative sampling locations were chosen throughout the fifth floor, as well as outdoor samples for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of

the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of June 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-02	Center of Anita Talley's Work Station	Zefon	15 L/min – 5 min
Z-03	Center of Laura Stortzum's Work Station	Zefon	15 L/min – 5 min
Z-05	Outside Bob Hedberg's Work Station	Zefon	15 L/min – 5 min
Z-07	Center of Karen Parker's Work Station	Zefon	15 L/min – 5 min
Z-09	Center of Janice Jordan's Work Station	Zefon	15 L/min – 5 min
Z-11	Conference Area at North-Center Portion of 5th Floor	Zefon	15 L/min – 5 min
Z-13	Exterior Control – Southwest Corner of Building	Zefon	15 L/min – 5 min

Each viable (live) sample was collected using an agar plate in conjunction with an Andersen single-stage impactor and a Dawson high volume air sampling pump. The sampling pump was calibrated immediately before and after use to a flow rate of 28.3 liters per minute. Fungal plates were prepared with malt extract agar (MEA). The MEA plates had an expiration date of December 10, 2004. Please note that Andersen bioaerosol samples measure viable fungi that are present in the air.

Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
AF-01	Center of Anita Talley's Work Station	AF	28.3 L/min – 2 min
AF-06	Center of Beverly Rodger's Work Station	AF	28.3 L/min – 2 min
AF-10	Outside Kathy Goldsmith's Work Station	AF	28.3 L/min – 2 min
AF-14	Exterior Control – Southwest Corner of Building	AF	28.3 L/min – 2 min

In addition to the bioaerosol samples, three (3) swab samples were collected in selected areas exhibiting dust accumulation, water damage, and/or area where fungal spores tend to settle. Each swab sample was sealed in its original tube with suspension solution and labeled with an identification number. These samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION
S-04	Inside Convector Unit Adjacent to Anita Talley's W.S.
S-08	Inside Convector Unit in Bill Ossmann's Office
S-12	Inside Convector Unit - Ann Moneymaker's W.S.

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Bruno, California for preparation, incubation, microscopic quantification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the

following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M³)	% OF OUTSIDE AIR (CONTROL)
Z-02	Center of Anita Talley's Work Station	559	5%
Z-03	Center of Laura Stortzum's Work Station	332	3%
Z-05	Outside Bob Hedberg's Work Station	1,653	16%
Z-07	Center of Karen Parker's Work Station	292	3%
Z-09	Center of Janice Jordan's Work Station	119	1%
Z-11	Conference Area at North-Center Portion of 5th Floor	120	1%
Z-13	Exterior Control – Southwest Corner of Building	10,279	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

The following table provides the viable fungi concentrations for the bioaerosol samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (CFU/M³)	% OF OUTSIDE AIR (CONTROL)
AF-01	Center of Anita Talley's Work Station	194	8%
AF-06	Center of Beverly Rodger's Work Station	301	13%
AF-10	Outside Kathy Goldsmith's Work Station	71	3%
AF-14	Exterior Control – Southwest Corner of Building	2,328	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note

that other species/genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface swab samples obtained by APEX on the fifth floor of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
S-04	Inside Convector Unit Adjacent to Anita Talley's W.S.	<1+ *Cladosporium* species
S-08	Inside Convector Unit in Bill Ossmann's Office	1+ *Penicillium* species 1+ *Cladosporium* species
S-12	Inside Convector Unit - Ann Moneymaker's W.S.	2+ *Cladosporium* species 1+ *Penicillium* species

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As

stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

At the time of sampling, outdoor weather conditions were sunny with a temperature of 76 degrees Fahrenheit and relative humidity of 37%. The winds were light and variable and predominantly out of the south. The average interior temperature was 73.6 degrees and 39% relative humidity.

As previously indicated, there was no evidence of abnormal airborne fungal ecology observed in the interior samples collected. Light fungal growth was identified in dust accumulations inside of the convector units which run along the perimeter walls of the fifth floor. This growth was not visible; however, it was observed in each of the three surface samples collected. Upon visual inspection and review of the analytical data, it is not believed that this light growth is contributing to the indoor bioaerosol spore load in the subject area.

The dust accumulations did not appear to be abnormal, as these conditions are frequently observed in HVAC systems in commercial and public office buildings. According to Dennis Buelt, Capitol Complex Safety Officer, the convector units are maintained approximately on a quarterly basis.

It is important to note that the claimant, Anita Talley, retained some of the convector unit filters for APEX's inspection. The filters were noted to be dirty, but not overloaded. It is our opinion that the uniform dust accumulations on the filters indicate that the filters were filtering dust particles from the air, as designed.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, the analytical data provides no indication of degradation of indoor air quality with regard to fungal spores. No additional sampling is recommended at this time.

Considering that light fungal growth was observed in the dust accumulations inside of the convector units, we recommend that they be thoroughly cleaned in accordance with NADCA standards. The future maintenance of these units should be performed on the current quarterly schedule.

8.0 CONDITIONS AND LIMITATIONS

Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS

Environmental Microbiology Laboratory, Inc.

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(650) 829-5800 Fax (650) 829-5852

5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5805

www.emlab.com

Report for:

Mr. Chris Frey
Apex Environmental Consultants, Inc
8600 West 110th Street
Suite # 120
Overland Park, KS 66210 USA

Regarding: Project: 40430I; Docking State Office Bldg. 6th Floor
EML ID: 115396

Approved by:

Janet Gallup
Senior Aerobiologist

Dr. David A. Bell
Laboratory President

This coversheet is included with your report in order to comply with AIHA and ISO accreditation requirements.

For clarity, we report the number of significant digits as calculated; but, due to the nature of this type of biological data, the number of significant digits that is used for interpretation should generally be one or two. All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank corrections of results is not a standard practice.

Document Number: 200091 - Revision Number: 3

Environmental Microbiology Laboratory, Inc.
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(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-02: Center of Anita Talley's work station		Z-03: Center of Laura Stortzum's work station		Z-05: Outside Bob Hedberg's work station		Z-07: Center of Karen Parker's work station	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	493047-1		493048-1		493049-1		493050-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					1	13		
Arthrinium								
Ascospores*	4	53	4	53	8	107		
Aureobasidium								
Basidiospores*			4	53	16	213	4	53
Bipolaris/Drechslera group								
Botrytis								
Cercospora								
Cladosporium	12	160	8	107	36	480	4	53
Curvularia	1	13						
Epicoccum								
Fusarium	1	13			4	53		
Myrothecium								
Nigrospora								
Oidium								
Other brown					2	27		
Penicillium/Aspergillus types†	24	320	4	53	56	747	12	160
Pithomyces								
Polythrincium								
Rusts*			1	13	1	13	1	13
Smuts*, Periconia, Myxomycetes*			4	53			1	13
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	2+		1+		2+		2+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		559		332		1,653		292

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may obscure the small spores such as the *Penicillium/Aspergillus* group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.
‡ A "Version" greater than 1 indicates amended data.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-09: Center of Janice Jordan's work station		Z-11: Conference area at north-center portion of 5th floor		Z-13: Exterior control, southwest corner of building	
Comments (see below)	None		None		None	
Lab ID-Version‡:	493051-1		493052-1		493053-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					13	173
Arthrinium						
Ascospores*	4	53			28	373
Aureobasidium						
Basidiospores*					108	1,440
Bipolaris/Drechslera group						
Botrytis						
Cercospora					6	80
Cladosporium			8	107	516	6,880
Curvularia					1	13
Epicoccum					8	107
Fusarium						
Myrothecium						
Nigrospora					1	13
Oidium					1	13
Other brown						
Penicillium/Aspergillus types†	4	53			60	800
Pithomyces						
Polythrincium					1	13
Rusts*					23	307
Smuts*, Periconia, Myxomycetes*	1	13	1	13	5	67
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	2+		1+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		119		120		10,279

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may obscure the small spores such as the *Penicillium/Aspergillus* group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.
‡ A "Version" greater than 1 indicates amended data.

09-22-2004: 40430I

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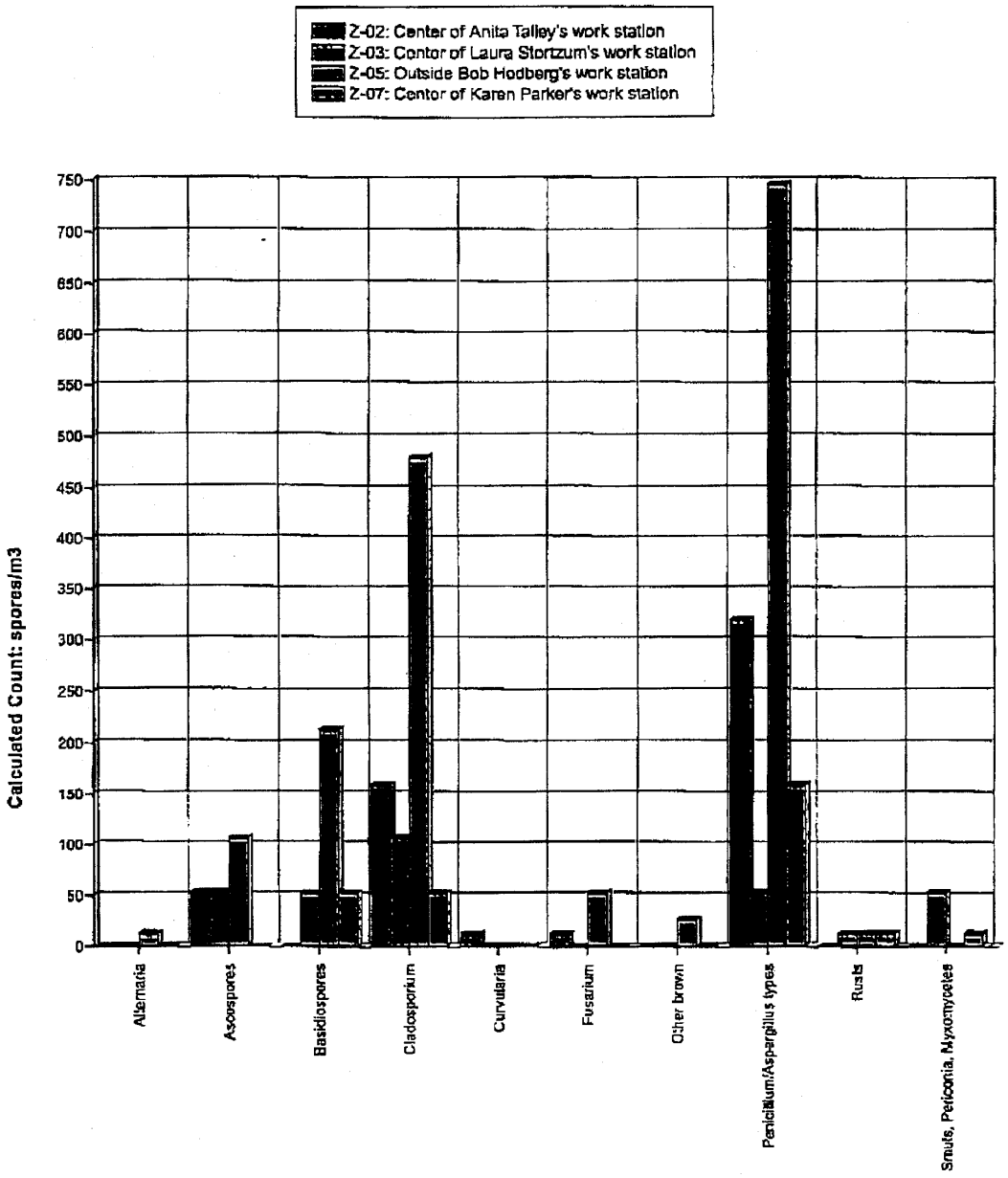
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:
Note: Graphical output may understate the importance of certain "marker" genera.

09-22-2004: 404301

Environmental Microbiology Laboratory, Inc.
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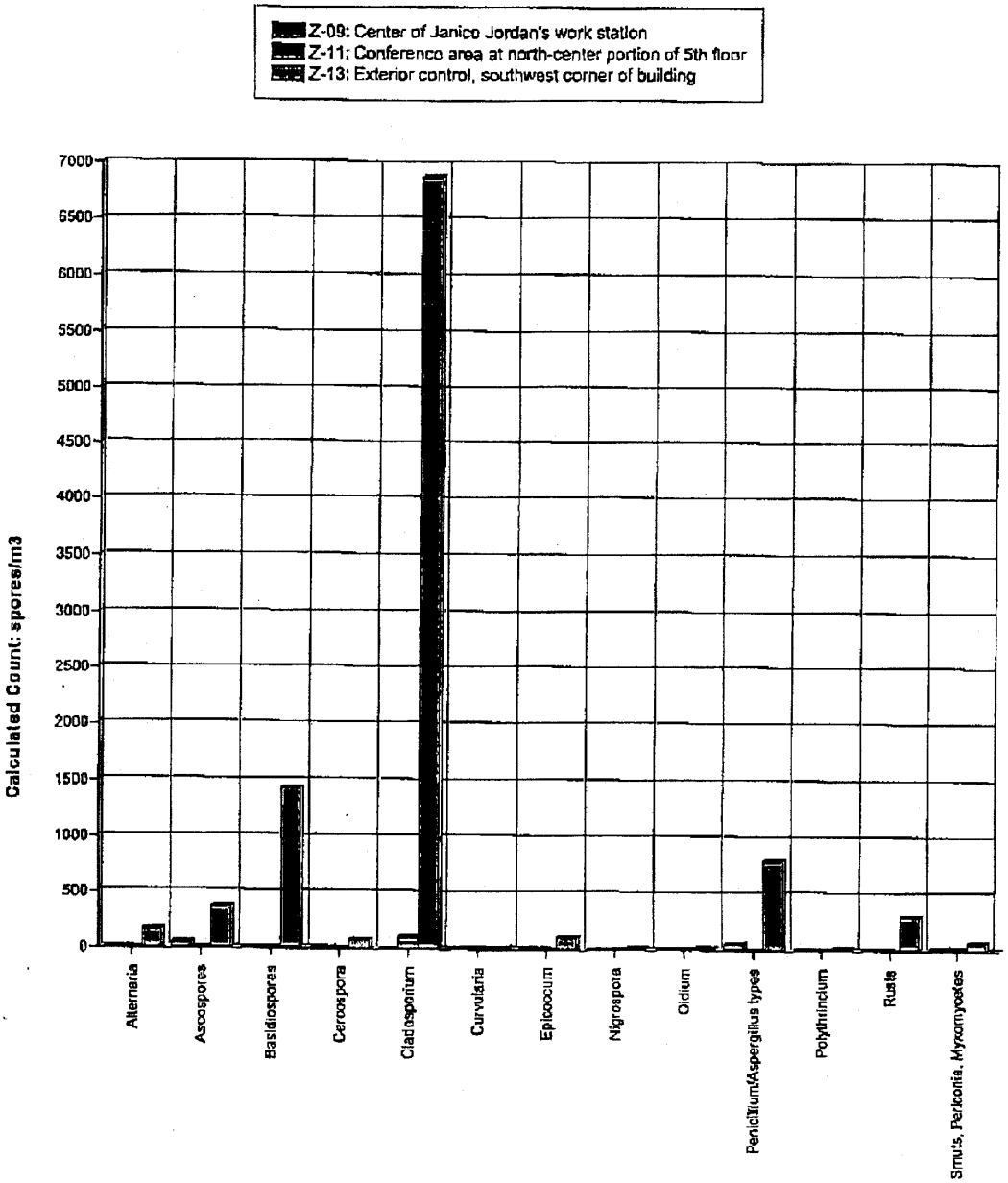
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:

Note: Graphical output may understate the importance of certain "marker" genera.

Environmental Microbiology Laboratory, Inc.
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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-27-2004

CULTURABLE AIR FUNGI REPORT

Location:	AF-01: Center of Anita Talley's work station		AF-06: Center of Beverly Rodger's work station		AF-10: Outside Kathy Goldsmith's work station		AF-14: Exterior control, southwest corner of building	
Comments (see below)	None		None		None		A	
Lab ID-Version‡:	493037-1		493038-1		493039-1		493040-1	
	raw ct.	cfu*/m3	raw ct.	cfu*/m3	raw ct.	cfu*/m3	raw ct.	cfu*/m3
Acremonium								
Alternaria							1	18
Aspergillus flavus								
Aspergillus fumigatus								
Aspergillus nidulans								
Aspergillus niger								
Aspergillus ochraceus								
Aspergillus versicolor								
Aureobasidium								
Basidiomycetes								
Beauveria					1	18		
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	6	106	9	159	1	18	102	2,080
Curvularia								
Epicoccum			1	18				
Fusarium								
Non-sporulating fungi	2	35	2	35			4	71
Paecilomyces								
Penicillium			4	71	2	35	5	88
Pithomyces	1	18						
Rhizopus							1	18
Sporothrix	2	35	1	18				
Ulocladium								
Yeasts							3	53
Positive Hole	400		400		400		400	
Sample volume (liters)	56.6		56.6		56.6		56.6	
TOTAL CFU*/M3		194		301		71		2,328

* cfu = colony forming units Positive hole correction chart used for all calculations AIHA EMPAT NO.: 102856

Comments: A) The sample was overgrown with a *Rhizopus* species which may have reduced or eliminated the presence of other fungi.

Note: Interpretation is left to the company and/or persons who conducted the field work. Variation is an inherent part of biological sampling. The presence or absence of a few genera in small numbers should not be considered abnormal.
NORMAL SPORE LEVELS: Indoor spore levels usually average 30 to 80% of the outdoor spore level at the time of sampling, with the same general distribution of spore types. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. (These percentages are guidelines, only. A major factor is the accessibility of outdoor air. A residence with open doors and windows and heavy foot traffic may average 95% of the outdoor level while high rise office buildings with little air exchange may average 2%. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types.)
PROBLEM INTERIORS: A substantial increase of one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.
‡ A "Version" greater than 1 indicates amended data.

09-27-2004: 40430I

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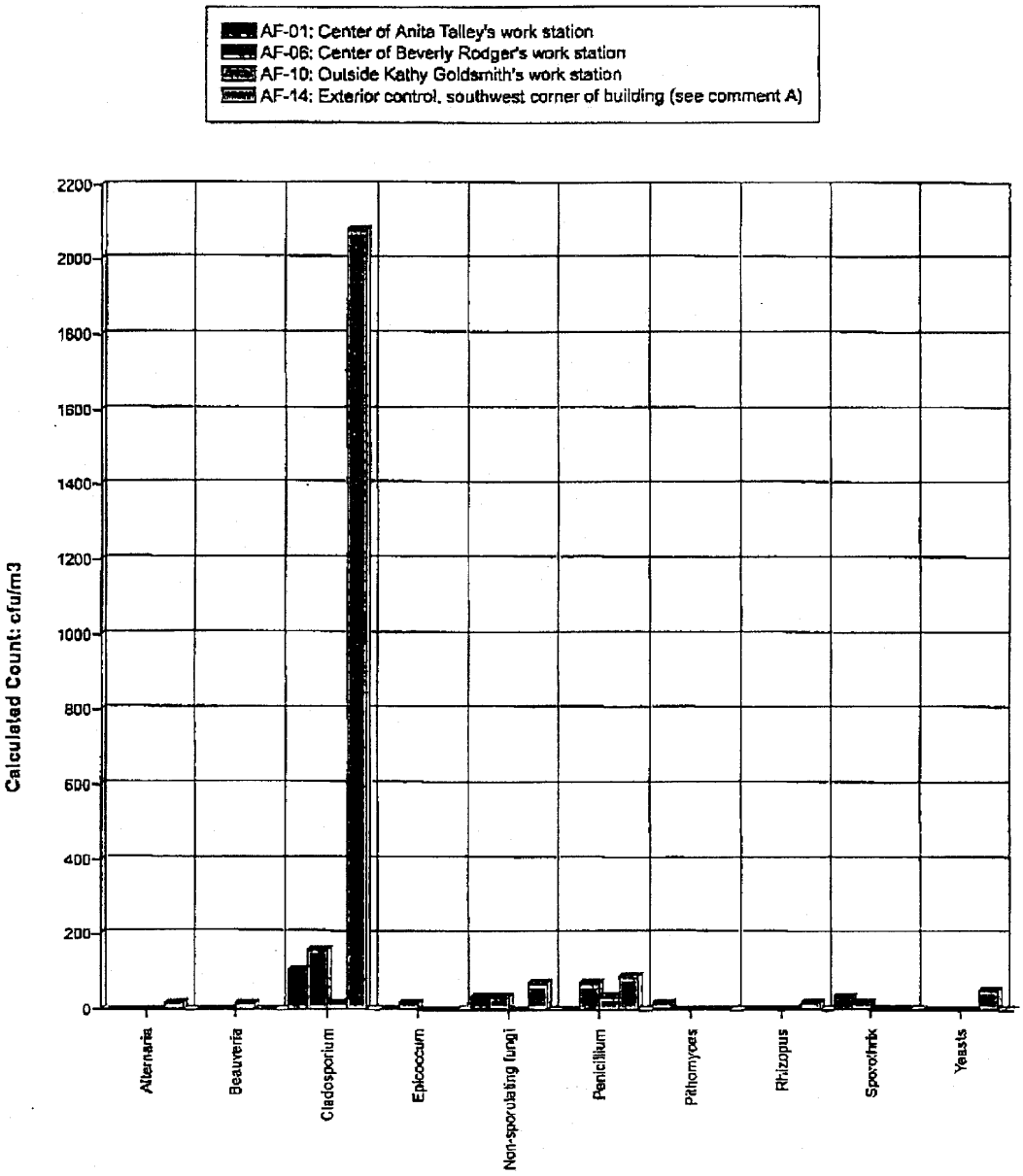
CULTURABLE AIR FUNGI REPORT



Comments: A) The sample was overgrown with a *Rhizopus* species which may have reduced or eliminated the presence of other fungi.

Note: Graphical output may understate the importance of certain "marker" genera.

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C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

DIRECT MICROSCOPIC EXAMINATION REPORT
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 493054-1: Swab sample S-04: Inside convector unit adjacent to Anita Talley's W.S.				
Light	Few	< 1+ *Cladosporium* species	None	Minimal mold growth
Lab ID-Version: 493055-1: Swab sample S-08: Inside convector unit in Bill Ossmann's office				
Light	Few	1+ *Penicillium* species 1+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 493056-1: Swab sample S-12: Center of Ann Moneymaker's work station				
Light	Few	2+ *Cladosporium* species 1+ *Penicillium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-13: Exterior control, southwest corner of building

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	173	7 - 27 - 320	56
Ascospores	373	13 - 160 - 3,300	74
Basidiospores	1,440	27 - 360 - 13,000	95
Cercospora	80	7 - 27 - 430	6
Cladosporium	6,880	53 - 590 - 7,900	97
Curvularia	13	7 - 20 - 570	14
Epicoccum	107	7 - 13 - 230	20
Nigrospora	13	7 - 13 - 270	12
Oidium	13	7 - 13 - 210	15
Penicillium/Aspergillus types	800	38 - 210 - 2,600	94
Polythrincium	13	7 - 13 - 170	2
Rusts	307	7 - 13 - 260	20
Smuts, Periconia, Myxomycetes	67	7 - 40 - 670	68
Total	10,279		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-02: Center of Anita Talley's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 5%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.4444	dF: 14 Result: 0.4044 Critical value: 0.4593 Outside Similar: No	Score: 105 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Ascospores	53
Cladosporium	160
Curvularia	13
Fusarium	13
Penicillium/Aspergillus types	320
Total	559

Environmental Microbiology Laboratory, Inc.
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 40430I; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-03: Center of Laura Stortzum's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.6316	dF: 13 Result: 0.8022 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Ascospores		53
Basidiospores		53
Cladosporium		107
Penicillium/Aspergillus types		53
Rusts		13
Smuts, Periconia, Myxomycetes		53
Total		332

Location: Z-05: Outside Bob Hedberg's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 16%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.5714	dF: 15 Result: 0.5929 Critical value: 0.4429 Outside Similar: Yes	Score: 131 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Alternaria		13
Ascospores		107
Basidiospores		213
Cladosporium		480
Fusarium		53
Other brown		27
Penicillium/Aspergillus types		747
Rusts		13
Total		1,653

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-07: Center of Karen Parker's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 2%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.5556	dF: 13 Result: 0.7418 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Basidiospores		53
Cladosporium		53
Penicillium/Aspergillus types		160
Rusts		13
Smuts, Periconia, Myxomycetes		13
Total		292

Location: Z-09: Center of Janice Jordan's work station

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.3750	dF: 13 Result: 0.4505 Critical value: 0.4780 Outside Similar: No	Score: 100 Result: Low

Species Detected	Spores/m3 <100 / 1K / 10K / >100K	
Ascospores		53
Penicillium/Aspergillus types		53
Smuts, Periconia, Myxomycetes		13
Total		119

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Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-11: Conference area at north-center portion of 5th floor

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 1%	dF: 5 Result: 12.5429 Critical value: 11.0705 Inside Similar: No	Result: 0.2667	dF: 13 Result: 0.4808 Critical value: 0.4780 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					107
Smuts, Periconia, Myxomycetes					13
Total					120

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

Environmental Microbiology Laboratory, Inc.
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. Chris Frey
Re: 404301; Docking State Office Bldg. 5th Floor

Date of Sampling: 09-20-2004
Date of Receipt: 09-21-2004
Date of Report: 09-22-2004

MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-13, Exterior control, southwest corner of building

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: September				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	173	7	33	560	68	7	91	1,000	69
Bipolaris/Drechslera group	-	7	13	250	26	7	13	80	21
Chaetomium	-	7	13	93	20	7	13	350	10
Cladosporium	6,880	53	850	13,000	99	51	1,300	20,000	99
Curvularia	13	7	27	750	30	7	13	130	20
Epicoccum	107	7	13	360	26	7	26	250	45
Nigrospora	13	7	20	520	24	7	13	140	24
Penicillium/Aspergillus types	800	53	320	4,100	96	51	270	3,400	98
Polythrincium	13	7	13	280	4	7	13	79	6
Stachybotrys	-	7	13	320	5	7	13	640	5
Torula	-	7	13	100	14	7	20	390	18
Seldom found growing indoors**									
Ascospores	373	13	160 -	3,700	76	35	470	9,300	83
Basidiospores	1,440	27	370	23,000	97	51	1,200	18,000	97
Cercospora	80	7	33	1,100	12	7	38	250	26
Oidium	13	7	13	200	13	7	13	160	13
Rusts	307	7	13	250	23	7	25	730	26
Smuts, Periconia, Myxomycetes	67	8	53	690	82	13	65	1,000	70
TOTAL SPORES/M3	10,279								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

LIMITED INDOOR AIR QUALITY SAMPLING SERVICES

ENVIRONMENTAL CONSULTANTS, INC.

PERFORMED AT:

DOCKING STATE OFFICE BUILDING – 4TH AND 10TH FLOORS
TOPEKA, KANSAS

PREPARED FOR:

MR. DENNIS BUELT
CAPITOL COMPLEX SAFETY COORDINATOR
KANSAS DIVISION OF FACILITIES MANAGEMENT
LANDON STATE OFFICE BUILDING
900 SW JACKSON STREET, ROOM 653
TOPEKA, KANSAS 66612-2210

PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.
8600 W. 110TH STREET, SUITE 120
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TEL: (913) 338-APEX FAX: (913) 338-2741
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CLIENT:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612

PROJECT:

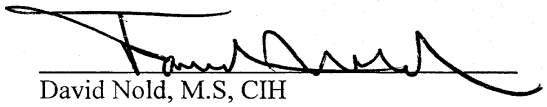
Limited Indoor Air Quality Sampling Services
Docking State Office Building – 4th and 10th Floors
Topeka, Kansas

APEX Project No.40588I

REPORT PREPARED BY:

APEX ENVIRONMENTAL CONSULTANTS, INC.

Prepared By:



David Nold, M.S, CIH
Certified Industrial Hygienist

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1.0 EXECUTIVE SUMMARY

In response to your request and authorization, APEX Environmental Consultants, Inc. (APEX) conducted a limited environmental fungi investigation on the fourth and tenth floors of the Docking State Office Building on December 14, 2004. This facility is located at 915 SW Harrison in Topeka, Kansas. The purpose of the inspection and sampling effort was to visually inspect the two floors for visible fungal contamination, and to conduct limited air quality sampling in each prospective area. It is understood that this work was initiated as a result of employee concerns regarding discoloration on the top of some of the convector units. David Nold, of APEX, conducted the visual inspection and sampling effort.

2.0 SUMMARY OF FINDINGS

Based on the visual inspection performed, visible fungal contamination was observed on many of the diffuser grills located on convector units throughout the fourth and tenth floors (see Appendix B, Photo Log). The quantity of contamination ranged from light spotty growth on some of the units, to twenty square inches of light growth on other units. Laboratory results indicate that the visible fungal growth consists of species of Cladosporium, a ubiquitous and common type of fungi observed in the outdoor environment. Cladosporium is most often the predominate airborne species observed in the outdoor environment and is not considered a "toxic mold". However, Cladosporium is considered an allergen.

The main air handling system for the both the fourth and tenth floors was also inspected with no indication of abnormal conditions. The filters appeared to be in good condition and free of excessive dust and/or debris. Additionally, the ceiling diffuser vents associated with the main air handling systems appeared to be relatively clean.

Bioaerosol sampling indicates no evidence of abnormal airborne fungal ecology on the fourth and tenth floors of the building. Species/genera of fungi identified in the samples were generally consistent with those found in the exterior sample, but at lower concentrations. In other words, it does not appear that the visible fungal growth observed on the convector units is adversely affecting the air quality in the building.

3.0 SAMPLING METHODOLOGY

Seven (7) bioaerosol samples were obtained, including one (1) exterior control sample during the sampling effort. Representative sampling locations were chosen throughout the fourth and tenth floors, as well as an outdoor sample for comparison purposes. APEX determined that the interior samples were representative of the entire floor, due to the close proximity of the offices/spaces and the fact that the air space was shared and readily exchanged from space to space.

Non-viable bioaerosol air samples were collected using Zefon Air-O-Cell sampling cassettes. The Air-O-Cell particulate sampling cassettes, coupled with a Zefon BioSampler™ high-volume air sampling pump, allow for the collection and analysis of a wide range of aerosols including mold spores, pollen, insect parts, and skin fragments. The sampling pump was calibrated immediately before and after use to a flow rate of 15 liters per minute. This sampling methodology is useful in providing rapid analysis of airborne contaminants in indoor air quality testing, allergy testing, and flood restoration monitoring. The cassettes utilized during this sampling had an expiration date of October 2005. Each sample was assigned a sample identification number and was recorded on the chain-of-custody form. Non-viable bioaerosol samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE	FLOW RATE/TIME
Z-01	4th floor, north	Zefon	15 L/min – 5 min
Z-02	4th floor, center	Zefon	15 L/min – 5 min
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min
Z-04	10th floor, north	Zefon	15 L/min – 5 min
Z-05	10th floor, center	Zefon	15 L/min – 5 min
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min
Z-07	Exterior Control	Zefon	15 L/min – 5 min

In addition to the bioaerosol samples, six (6) tape lift samples were collected in selected areas exhibiting suspect visible fungal amplification. The tape samples were mounted on clear glass slides, sealed in clean centrifuge tubes, and labeled with an identification number. The surface samples were collected in the following locations:

SAMPLE ID	LOCATION DESCRIPTION	SAMPLE TYPE
T-08	4th floor, east wall, ventilator diffuser	Tape
T-09	4th floor, south wall, ventilator diffuser	Tape
T-10	4th floor, west wall, ventilator diffuser	Tape
T-11	10th floor, east wall, ventilator diffuser	Tape
T-12	10th floor, south wall, ventilator diffuser	Tape
T-13	10th floor, west wall, ventilator diffuser	Tape
T = Tape		

The samples were sent by overnight shipment to Environmental Microbiology Laboratory, in San Diego, California for preparation, incubation, microscopic identification and genus/species identification. Environmental Microbiology is accredited by the American Industrial Hygiene Association (AIHA) in the environmental microbiology program.

4.0 EXPOSURE GUIDELINES

Currently in the U.S., no federal agency has clear authority to regulate exposure to biological agents associated with Building Related Illnesses. Countable bioaerosols have no Permissible Exposure Limits (PELs) or Threshold Limit Values (TLVs) for the following reasons: the culturable/countable bioaerosols have no single entry; the human response range varies greatly from one individual to the next; it is not possible to collect and evaluate all bioaerosol components using a single sampling method; and, the information relating bioaerosol concentrations to health effects is generally insufficient to describe exposure response.

Due to a wide variety of microorganisms found across different regions of the U.S. and the influence of normal humidity and temperature conditions, the concentrations of bioaerosols vary significantly from area to area. Generally speaking, the indoor air flora should be quantitatively lower than, but quantitatively similar (genus or species) to that of outdoor air. Indoor air counts are typically expected to be 30 to 80% of outdoor spore counts, with the same general distribution of spore types present. Filtered air, air-conditioned air, or air remote from outside sources may average 5 to 15% of the outside air at the time of sampling. Dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types. A substantial increase in one or two spore types which are inconsistent with and non-reflective of the outside distribution of spore types is usually indicative of an indoor reservoir of mold growth.

5.0 SAMPLING RESULTS

The following table provides the non-viable fungi concentrations for the bioaerosol samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	SAMPLE LOCATION	FUNGI (SPORES/M^3)	% OF OUTSIDE AIR (CONTROL)
Z-01	4th floor, north	66	19.9%
Z-02	4th floor, center	66	19.9%
Z-03	4th floor, south (Rebecca's Office)	66	19.9%
Z-04	10th floor, north	13	3.9%
Z-05	10th floor, center	13	3.9%
Z-06	10th floor , south (Receivables)	79	23.8%
Z-07	Exterior Control	332	N/A

When compared to the results obtained for the exterior control sample, no evidence of abnormal airborne fungal ecology was observed in the interior samples collected. Species/genera of fungi identified in the interior samples were generally consistent with those found in the exterior sample, and at generally lower concentrations. Please note that other genera of fungi were identified in the interior samples; however, these spores were only present in small amounts and should not be considered abnormal.

Surface Samples

Surface samples were analyzed using direct microscopic examination primarily in an effort to characterize what species/genera were present. Most surfaces collect a mix of spores which are normally present in the environment. At times, it is possible to note a skewing of the normal distribution of spore types and also to note "marker" genera, which may indicate indoor mold growth. Please note that when referring to the analytical results for the tape samples, the laboratory uses a scale of 1+, 2+, 3+, and 4+, with 4+ denoting the highest number of spore groups, clumps, and/or chains of single spore types, usually accompanied by intact mycelial and/or sporulating structures.

The following table provides the results for the surface samples obtained by APEX on the fourth and tenth floors of Docking State Office Building:

SAMPLE ID	LOCATION DESCRIPTION	RESULTS
T-08	4th floor, east wall, ventilator diffuser	Cladosporium 4+
T-09	4th floor, south wall, ventilator diffuser	Cladosporium 3+
T-10	4th floor, west wall, ventilator diffuser	Cladosporium 3+
T-11	10th floor, east wall, ventilator diffuser	Cladosporium 3+
T-12	10th floor, south wall, ventilator diffuser	Cladosporium 2+
T-13	10th floor, west wall, ventilator diffuser	Cladosporium 2+

The laboratory reports for all of the sampling can be found in Appendix A.

6.0 DISCUSSION AND OBSERVATIONS

Indoor and outdoor spore level comparisons should be evaluated with an awareness of building type, activity level, and weather conditions present at the time of sampling. As stated above, filtered or air-conditioned environments tend to produce lower relative spore counts than those with direct access to outdoor air. Highly active or dusty environments may increase spore levels. While rain washes the air clear of many spore types, it also assists in the dispersion of others. Therefore, sampling on rainy or very humid days may result in outdoor counts which are low or which have a significantly different distribution of spore types.

The building was occupied under normal operating conditions at the time of sampling. Outdoor weather conditions were overcast and raining with a temperature in the mid 30's (degrees Fahrenheit).

Light fungal growth was identified on top of some of the convector units that run along the perimeter walls on both the fourth and tenth floors (see Appendix B, Photo Log). Surface sampling indicates this fungal growth consists of species of Cladosporium. Cladosporium is a ubiquitous type of fungi commonly observed in the outdoor environment and is not considered to be a "toxic mold". Furthermore, based on the

bioaerosol sampling performed, the fungal growth observed on the convector units does not appear to be adversely affecting the air quality. No evidence of abnormal airborne fungal ecology was observed on either the fourth or tenth floors. Nevertheless, fungal growth should not be allowed to grow and amplify in the indoor environment.

7.0 SUMMARY AND RECOMMENDATIONS

In summary, light fungal growth was observed on top of some of the convector units located along the perimeter walls on the fourth and tenth floors of the building. However, based on the air sampling performed, no evidence of abnormal airborne fungal ecology was observed in the affected areas.

Due to the light fungal growth on the top of the convector units, APEX recommends that the units be cleaned in accordance with NADCA standards. Future cleaning of these units should be performed on the current quarterly maintenance schedule.

8.0 CONDITIONS AND LIMITATIONS

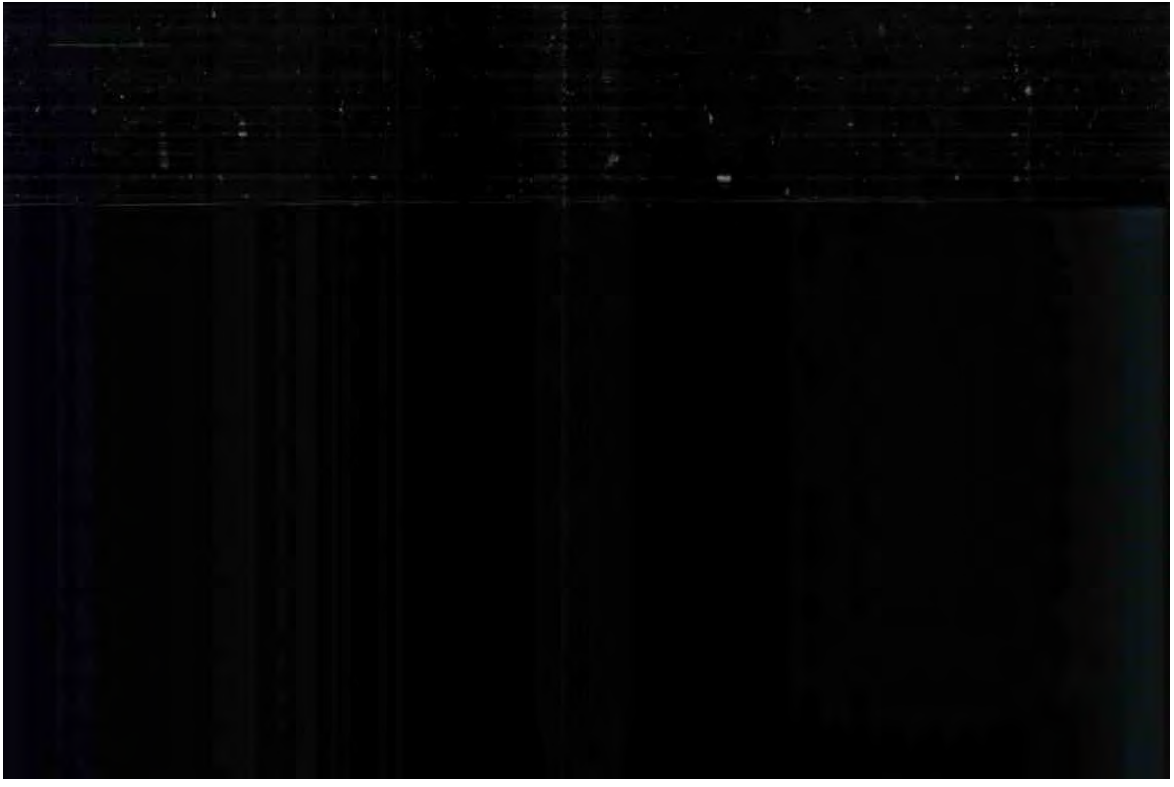
Air sampling results are limited in that they represent airborne concentrations at the time of sample collection only. Changes in operating procedures, ventilation, temperature, occupancy, equipment, sources, products used, and other conditions may cause variations in anticipated airborne concentrations. The similar is true for surface growth and contamination.

APEX has performed the tasks set forth above in a thorough and professional manner consistent with industry standards and under supervision of a certified professional. APEX cannot guarantee and does not warrant that this limited assessment has revealed all adverse environmental conditions affecting the site nor can APEX warrant that the assessment requested will satisfy the dictates of, or provide a legal defense in connection

with, environmental laws or regulations.

The results reported and any opinions reached by APEX are for the benefit of the client. The results and opinions set forth by APEX in its report will be valid as of the date of the report. APEX assumes no obligation to advise you of any changes that may be later brought to our attention.

APPENDIX A
ANALYTICAL RESULTS



APEX Environmental Consultants, Inc.

8600 W. 110th Street • Overland Park, KS 66210 • (913) 338-2739 • FAX (913) 338-2741

Sample Chain of Custody

Sample Date: December 14, 2004 **Page:** 1 of 1

Project Name: Docking State Office Building, Topeka, KS **Contact:** David Nold **Project #:** 405881

Sample ID	*Location Description*	*Sample Type*	*Flow Rate/Time*	*Total Volume/Area*	*Notes*
Z-01	4th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-02	4th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-03	4th floor, south (Rebecca's Office)	Zefon	15 L/min – 5 min	75 Liters	
Z-04	10th floor, north	Zefon	15 L/min – 5 min	75 Liters	
Z-05	10th floor, center	Zefon	15 L/min – 5 min	75 Liters	
Z-06	10th floor , south (Receivables)	Zefon	15 L/min – 5 min	75 Liters	
Z-07	Exterior Control	Zefon	15 L/min – 5 min	75 Liters	
T-08	4th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-09	4th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-10	4th floor, west wall, ventilator diffuser	Tape	NA	NA	
T-11	10th floor, east wall, ventilator diffuser	Tape	NA	NA	
T-12	10th floor, south wall, ventilator diffuser	Tape	NA	NA	
T-13	10th floor, west wall, ventilator diffuser	Tape	NA	NA	

Additional Instructions:

- Standard Turnaround
- E-mail results to: dnold@4apex.com
- Please Fax results to Attn. Dave at (913) 338-2741
- Send invoice to: Accts. Payable, APEX Environmental Consultants

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Relinquished By:_____ **Date** _____ **Received by:**_____ **Date:**_____

Environmental Microbiology Laboratory, Inc.
5473 Kearny Villa Road, Suite 130, San Diego, CA 92123
(858) 569-5800 Fax (858) 569-5806 www.emlab.com

Client: Apex Environmental Consultants, Inc
C/O: Mr. David Nold
Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-01: 4th floor, north		Z-02: 4th floor, center		Z-03: 4th floor, south (Rebecca's office)		Z-04: 10th floor, north	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	549669-1		549670-1		549671-1		549672-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria								
Arthrinium								
Ascospores*								
Aureobasidium								
Basidiospores*								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium	4	53	4	53	4	53		
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13	1	13	1	13		
Other colorless								
Penicillium/Aspergillus types†							1	13
Pithomyces								
Rusts*								
Smuts*, Periconia, Myxomycetes*								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unknown								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
TOTAL SPORES/M3		66		66		66		13

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Z-05: 10th floor, center		Z-06: 10th floor, south (Receivables)		Z-07: Exterior control	
Comments (see below)	None		None		None	
Lab ID-Version‡:	549673-1		549674-1		549675-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					4	53
Arthrinium						
Ascospores*			1	13		
Aureobasidium						
Basidiospores*			1	13		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	13	4	53	12	160
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown					1	13
Other colorless						
Penicillium/Aspergillus types†					4	53
Pithomyces						
Rusts*					1	13
Smuts*, Periconia, Myxomycetes*					2	27
Stachybotrys						
Stemphylium						
Torula					1	13
Ulocladium						
Unknown						
Zygomycetes						
Background debris (1-4+)††	1+		2+		2+	
Sample volume (liters)	75		75		75	
TOTAL SPORES/M3		13		79		332

Comments:

* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium, Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.
‡ A "Version" greater than 1 indicates amended data.

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Client: Apex Environmental Consultants, Inc
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Re: 40588I; Docking State Office Building

Date of Sampling: 12-14-2004
Date of Receipt: 12-16-2004
Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: Z-07: Exterior control

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Alternaria	53	7 - 27 - 310	55
Ascospores	ND	13 - 160 - 3,200	75
Basidiospores	ND	27 - 370 - 14,000	95
Cladosporium	160	53 - 590 - 7,400	97
Other brown	13	7 - 13 - 93	40
Penicillium/Aspergillus types	53	38 - 210 - 2,600	94
Rusts	13	7 - 13 - 280	20
Smuts, Periconia, Myxomycetes	27	7 - 40 - 630	68
Torula	13	7 - 13 - 170	11
Total	332		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: Z-01: 4th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Cladosporium	53
Other brown	13
Total	66

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-02: 4th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					53
Other brown					13
Total					66

Location: Z-03: 4th floor, south (Rebecca's office)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 19%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4444	dF: 7 Result: 0.4375 Critical value: 0.6786 Outside Similar: No	Score: 104 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					53
Other brown					13
Total					66

Location: Z-04: 10th floor, north

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.5446 Critical value: 0.6786 Outside Similar: No	Score: 101 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Penicillium/Aspergillus types					13
Total					13

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Date of Report: 12-20-2004

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: Z-05: 10th floor, center

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 3%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.7321 Critical value: 0.6786 Outside Similar: Yes	Score: 100 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Cladosporium					13
Total					13

Location: Z-06: 10th floor, south (Receivables)

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 23%	dF: 5 Result: 2.6000 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2000	dF: 9 Result: 0.0750 Critical value: 0.5833 Outside Similar: No	Score: 102 Result: Low

Species Detected	Spores/m3 <100	1K	10K	>100K	
Ascospores					13
Basidiospores					13
Cladosporium					53
Total					79

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

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MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: Z-07, Exterior control

Fungi Identified	Outdoor data	Typical Outdoor Data by Date† Month: December				Typical Outdoor Data by Location‡ State: KS			
	spores/m3	low	med	high	freq %	low	med	high	freq %
Generally able to grow indoors*									
Alternaria	53	7	22	300	37	13	91	910	69
Bipolaris/Drechslera group	-	7	13	200	12	7	13	80	22
Chaetomium	-	7	13	110	11	7	13	230	10
Cladosporium	160	27	430	6,300	94	51	1,300	19,000	99
Curvularia	-	7	13	460	11	7	13	260	22
Nigrospora	-	7	13	130	9	7	13	150	27
Other brown	13	7	13	80	34	7	20	93	44
Penicillium/Aspergillus types	53	27	210	2,400	93	51	270	3,300	96
Stachybotrys	-	7	13	320	3	7	13	670	4
Torula	13	7	13	93	4	7	13	420	18
Seldom found growing indoors**									
Ascospores	-	13	120	2,100	66	27	420	7,800	85
Basidiospores	-	25	360	12,000	93	51	1,100	17,000	98
Rusts	13	7	13	180	11	7	27	860	30
Smuts, Periconia, Myxomycetes	27	7	27	280	55	11	67	1,000	72
TOTAL SPORES/M3	332								

AIHA EMPAT NO.: 102856

† The Typical Outdoor Data by Date represents the typical outdoor spore levels across North America for the month indicated. The last column represents the frequency of occurrence. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 2.5% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

‡ The Typical Outdoor Data by Location represents the typical outdoor spore levels for the region indicated. As with the Typical Outdoor Data by Date, the four columns represent the frequency of occurrence and the typical low, medium, and high concentration values for the spore type indicated. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

*The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

**These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Environmental Microbiology Laboratory, Inc. and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Environmental Microbiology Laboratory, Inc. may not have received and tested a representative number of samples for every region or time period. Environmental Microbiology Laboratory, Inc. hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Sampling: 12-14-2004
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DIRECT MICROSCOPIC EXAMINATION REPORT
(Wet Mount)

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 549676-1: Tape sample T-08: 4th floor, east wall, ventilator diffuser				
Scant	None	4+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549677-1: Tape sample T-09: 4th floor, south wall, ventilator diffuser				
Scant	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549678-1: Tape sample T-10: 4th floor, west wall, ventilator diffuser				
Moderate	None	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549679-1: Tape sample T-11: 10th floor, east wall, ventilator diffuser				
Moderate	Very few	3+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549680-1: Tape sample T-12: 10th floor, south wall, ventilator diffuser				
Moderate	None	2+ *Cladosporium* species	None	Mold growth
Lab ID-Version: 549681-1: Tape sample T-13: 10th floor, west wall, ventilator diffuser				
Moderate	Few	2+ *Cladosporium* species	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

APPENDIX B
PHOTO LOG

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 1	View of air handling unit in 10th floor mechanical room.

Photo No. 2	View of filters in 10th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 3	View of ceiling air diffuser located on 10th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 10th floor.

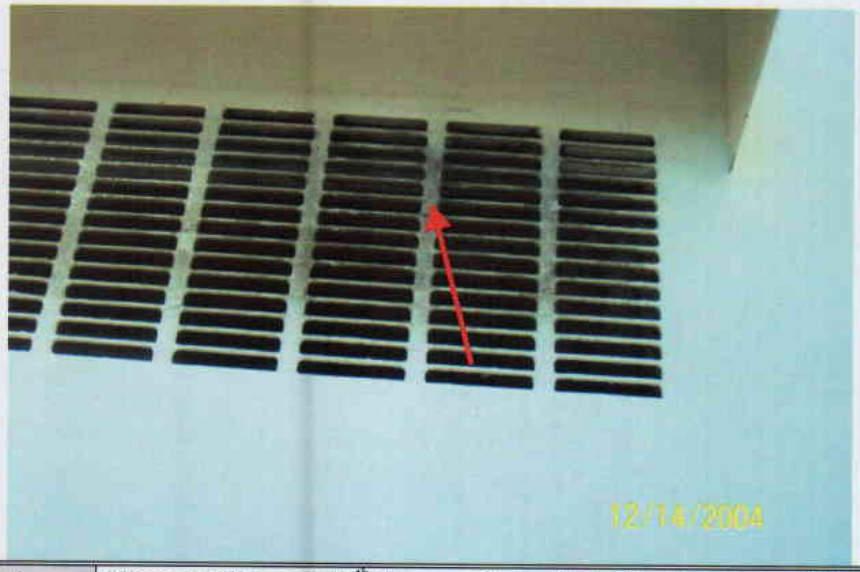


Photo No. 4	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-11.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 5	View inside 10th floor ventilator unit.

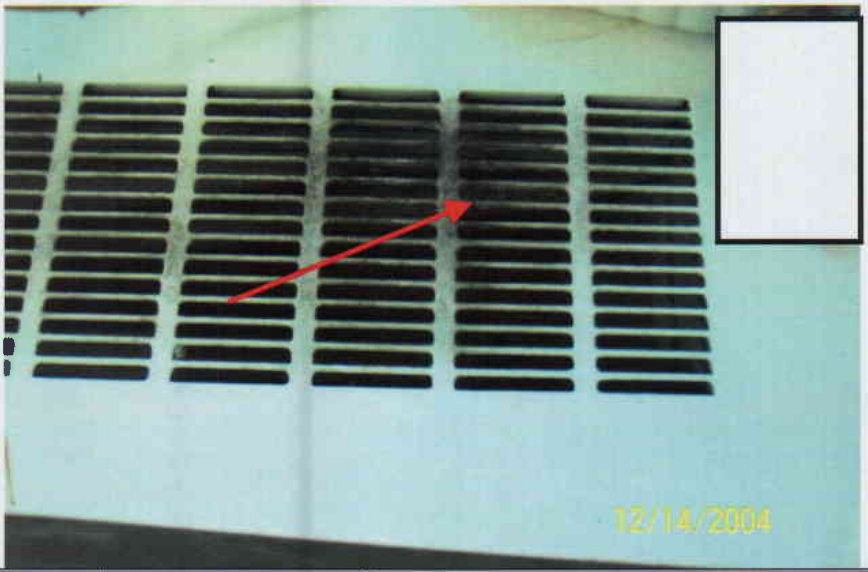


Photo No. 6	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-12.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 7	View of diffuser on 10th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-13.

Photo No. 8	View of air handling unit in 4th floor mechanical room.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 9	View of filters in 4th floor air handling unit. Filters appear to be well maintained with no build-up of excessive dust or debris.

Photo No. 10	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-08.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 11	View of ceiling air diffuser located on 4th floor. Diffuser appears to be relatively clean with no evidence of fungal growth. Typical of all diffusers on 4th floor.

Photo No. 12	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-09.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 13	View of diffuser on 4th floor ventilator. Note discoloration on diffuser. Arrow denotes location of sample T-10.

Photo No. 14	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 15	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

Photo No. 16	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

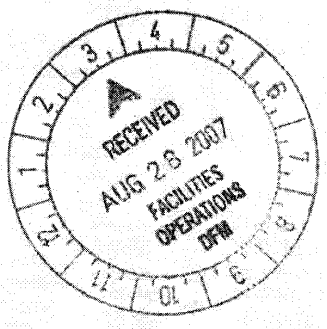
PHOTO LOG

PROJECT NAME: Limited Environmental Fungi Sampling **PHOTO DATE:** December 14, 2004
PROJECT LOCATION: Docking State Office Building, Topeka, KS **APEX Proj. No.:** 40588I

Photo No. 17	View of diffuser on 4th floor ventilator. Note discoloration on diffuser.

KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary
www.dol.ks.gov



August 9, 2007

Mr. Dan Balch
Department of Administration
Division of Facilities Management
Landon State Office Building
900 SW Jackson St. Room 653
Topeka, KS 66612

Inspection Number: 865708002

Mr. Balch:

On July 24, 2007, Helen Cook, Certified Industrial Hygienist and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an on-site inspection of your facilities to determine if possible unsafe or unhealthy working conditions might be present due to a specific complaint received in our department. This inspection was conducted under the authority granted the Secretary of Kansas Department of Labor by K.S.A. 44-636. A summary of findings follows on the Inspection Notice. We are pleased to report that no hazards were found as a result of the inspection.

It is our goal to continue to reduce the number of persons injured on the job in Kansas. With people like yourself assisting us, our attainment of that goal is made easier.

Again, thanks for your cooperation in this endeavor. If we may be of further assistance, please do not hesitate to contact this office.

Should you need any additional assistance or clarification regarding any of the enclosed findings, please contact this office or Helen Cook, Certified Industrial Hygienist, who visited your place of employment.

"You can obtain information about our upcoming Safety & Health Conference by going to our website at: www.dol.ks.gov, or by calling Dena Ackors at (785) 296-4386."

Sincerely,

Steve Zink, CSP
Director, Industrial Safety & Health

SZ: hc; bag
Enclosures: Health Inspection Report

INDUSTRIAL SAFETY AND HEALTH
800 S.W. Jackson Suite 1500, Topeka, KS 66612-1200 • phone (785) 296-4386 • fax (785) 296-1775

Kansas Department of Labor
Industrial Safety and Health Section

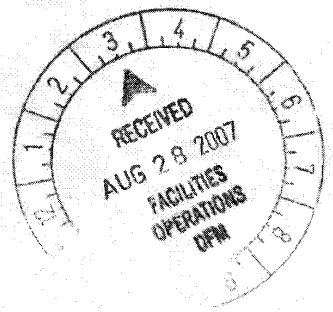
INDUSTRIAL SAFETY/HEALTH INSPECTION NOTICE

No recommendations are being made as a result of this complaint in facilities under your jurisdiction.

Docking Building **Inspection Number: 865708002**

Summary of Complaint:

Employees in the Docking State Office Building located at 915 SW Harrison St. in Topeka, KS were complaining of a solvent odor on the 5th floor due to a recent remodeling project. Employees were also complaining of headaches due to inhaling fumes from a welding project that was occurring in the sub-basement level of the building.



SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

Kansas Department of Labor
Industrial Safety and Health
800 SW Jackson, Suite 1500
Topeka, KS 66612-1200
Phone: 785-296-4386
FAX: 785-296-1775
www.dol.ks.gov

Inspection Number: 865708002

INDOOR AIR QUALITY ASSESSMENT REPORT

EXECUTIVE SUMMARY

This report provides the results of an Indoor Air Quality Health Inspection of the Docking State Office Building located 915 Harrison St. in Topeka, KS. On July 24, 2007 Helen Cook, Certified Industrial Hygienist, and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an indoor air quality inspection, in response to employee concerns relative to indoor air quality to determine if any unhealthy conditions were present relative to indoor air quality. The inspection consisted of a visual inspection and a review of material safety data sheets (MSDSs). At the time of the inspection the Kansas Department of Labor found no problem regarding indoor air quality at Docking State Office Building facility.

Visual Inspection

On July 24, 2007, the Kansas Department of Labor conducted a visual inspection of the Docking State Office Building due to a complaint regarding fume and solvent odors. The facility is located at 915 Harrison St., in Topeka, Kansas. Prior to the inspection, Ms. Betsy Gaydess, Industrial Hygiene Consultant Trainee and Helen Cook, Certified Industrial Hygienist met with Mr. Dan Balch, Facilities Operation Manager and Mr. Kevin Fulton, Public Service Administrator II, to discuss the nature of the complaint. It was learned that a contractor had been hired to perform welding and cutting work in the sub-basement area of the building. Employees were concerned with the odors associated with this work. Also, the old carpet of an area on the 5th floor of the building had been removed and the floor beneath had been stripped to remove the residual glue from the former carpet. Employees were concerned with the solvent odors associated with the floor stripping process.

The walkthrough of the building began in the sub-basement where the contractor was observed performing the cutting and welding work. The indoor atmosphere in this area was initially found to be smoky and hazy at the time of entrance. However, large fans were present in the work area and it was deemed that ventilation of the area was satisfactory for the type of work being performed. Also, it was noted that no State of Kansas employee was asked to work in the sub-basement for extended periods of time while the work was being performed. The sub-basement area is vented outside; these vents are located at the south side of the building and are protected by a large grate. Employees located near the south side of the building were complaining of headaches. Helen Cook recommended that carbon monoxide monitors be placed in the rooms of the south side of the building to ensure that employees are not being exposed to carbon monoxide being exhausted through these vents. The welding project was expected to be finished shortly.

Employees were concerned with welding and cutting fumes when walking through the hallway of the basement area. A walkthrough of this hallway was performed; no odor was noted at the time of the walkthrough.

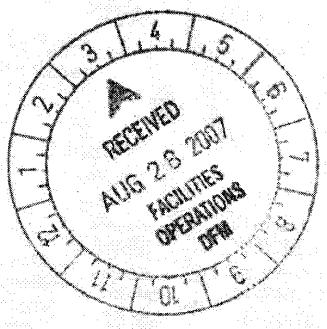
An inspection of the 5th floor of the Docking Building was performed to investigate the complaint regarding the presence of solvent fumes. It was explained to the KDOL representatives that carpet had been removed from the 5th floor recently and that it had been necessary to strip the floor to remove the residual glue. Helen Cook and Betsy Gaydess were then provided with copies of the material safety data sheets (MSDSs) of the chemicals that were used to strip the floors. Helen Cook did not think a problem existed with the chemicals used in this process. The stripping process had been finished at the time of the inspection. It was deemed at that the time of the inspection, no problem concerning solvent fumes existed.

Conclusion

At the time this inspection was conducted, KDOL determined that no state employees were being exposed to harmful fumes from the welding process occurring in the sub-basement or harmful solvent vapors from the stripping process. However, KDOL does suggest the installation of carbon monoxide detectors in rooms in the south side of the Docking Building to ensure that employees are not being exposed to elevated levels of carbon monoxide due to the exhaust vent located directly outside of the windows at this location.

KANSAS
DEPARTMENT OF LABOR

Kathleen Sebelius, Governor
Jim Garner, Secretary
www.dol.ks.gov



August 9, 2007

Mr. Dan Balch
Department of Administration
Division of Facilities Management
Landon State Office Building
900 SW Jackson St. Room 653
Topeka, KS 66612

Inspection Number: 865708002

Mr. Balch:

On July 24, 2007, Helen Cook, Certified Industrial Hygienist and Betsy Gaydess, Industrial Hygiene Consultant Trainee, conducted an on-site inspection of your facilities to determine if possible unsafe or unhealthy working conditions might be present due to a specific complaint received in our department. This inspection was conducted under the authority granted the Secretary of Kansas Department of Labor by K.S.A. 44-636. A summary of findings follows on the Inspection Notice. We are pleased to report that no hazards were found as a result of the inspection.

It is our goal to continue to reduce the number of persons injured on the job in Kansas. With people like yourself assisting us, our attainment of that goal is made easier.

Again, thanks for your cooperation in this endeavor. If we may be of further assistance, please do not hesitate to contact this office.

Should you need any additional assistance or clarification regarding any of the enclosed findings, please contact this office or Helen Cook, Certified Industrial Hygienist, who visited your place of employment.

"You can obtain information about our upcoming Safety & Health Conference by going to our website at: www.dol.ks.gov, or by calling Dena Ackors at (785) 296-4386."

Sincerely,

Steve Zink, CSP
Director, Industrial Safety & Health

SZ: hc; bag
Enclosures: Health Inspection Report

INDUSTRIAL SAFETY AND HEALTH
800 S.W. Jackson Suite 1500, Topeka, KS 66612-1200 • phone (785) 296-4386 • fax (785) 296-1775

Kansas Department of Labor
Industrial Safety and Health Section

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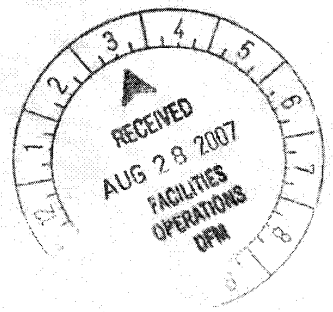

SAFETY CONSULTATION REPORT

Prepared For:

Docking State Office Building
915 Harrison St.
Topeka, KS 66612

Submitted By:

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Industrial Safety and Health
800 SW Jackson, Suite 1500
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APEX ENVIRONMENTAL CONSULTANTS, INC.

4800 College Boulevard. • Overland Park, Kansas 66211 • (913) 338-2739 • FAX (913) 338-2741

FAX COVER SHEET

Wednesday, April 12, 2000

Project: Docking State Office Building
Environmental Fungi Testing

Project #: Proposal

To:

Mr. Dennis Buelt
Capitol Complex Safety Coordinator

FAX No.: (785) 368-6307

From: Chris Frey

This transmittal consists of ~ 3 *pages, including this cover page. If you do not receive all pages, please notify our office.*

Notes:

Attached please find the proposal you requested for fungi testing services. Please review the proposal at your convenience and do not hesitate to call me if you have any questions. I'll be in a training class all day tomorrow, so the best way to reach me will be via cell phone at (913) 481-7373. If I don't answer right away, leave a message and I'll call you back during a break. Thanks Dennis!

APEX ENVIRONMENTAL CONSULTANTS, INC.

Rising to the Top

PHONE: (913) 338-APEX
(913) 338-2739
FAX: (913) 338-2741
E-MAIL: apex@4apex.com

April 12, 2000

Mr. Dennis Buelt
Capitol Complex Safety Coordinator
Kansas Division of Facilities Management
Landon State Office Building
900 SW Jackson Street, Room 653
Topeka, Kansas 66612-2210

VIA FAX: (785) 368-6307

RE: Environmental Fungi Sampling
Docking State Office Building
APEX Proposal #0044

Dear Mr. Buelt:

APEX Environmental Consultants, Inc. (APEX) is pleased to submit the following proposal for microbiological surface sampling in response to our conversation earlier today. It is understood that this work has been initiated at your request as a result of the presence of what appears to be visible fungal growth inside of the lined ductwork at Docking State Office Building.

The purpose of the investigation is to determine whether environmental fungi is growing inside of the ducts and/or air handling units. Bulk and/or tape lift samples will be collected from the visible fungal growth in an effort to verify the species of fungi. It is anticipated that approximately four (4) samples will be collected.

If, during the site investigation, it is determined that the substance inside of the HVAC systems is not fungal growth, APEX will make recommendations for appropriate sampling and analysis of the material(s). APEX will come prepared to perform such sampling, if determined necessary.

The cost for the aforementioned services will be a not-to-exceed fee of $600.00. Fees include all sampling time and materials, as well as an accompanying project report. This fee is pursuant to those listed in our on-call indefinite delivery contract with Division of Architectural Services.

APEX appreciates the opportunity to propose on this project. After your review of this proposal, if there are any questions, please feel free to contact me. If this proposal is

acceptable, please provide your written authorization in the space below. APEX will schedule fieldwork upon receipt of this signed proposal.

Respectfully submitted,
APEX Environmental Consultants, Inc.

Christopher S. Frey, CIE
Vice President

AGREED TO THIS _____ DAY OF _____, 2000

BY: _____.

TITLE: _____.

FIRM: _____.

KLEINFELDER
EXPECT MORE®

November 28, 2007

Mr. George Werth, Chief Engineer
State of Kansas Division of Facilities Management
900 SW Jackson Street, Room 600
Topeka, Kansas 66612-2210

RE: Air Quality Screening
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 78215, Task 12

Dear Mr. Werth:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne volatile organic chemicals (VOC's) in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On November 7, 8 and 13, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces and the south hallway.

Kleinfelder personnel established a limited sampling protocol for VOC's in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), and the hallway. Several areas of concern within the offices were sampled as areas of possible sources for indoor air quality (IAQ) contaminants. Those areas included: the southeast office suite (the southeast office suite is made up of the Directors office, cubicle spaces and a storage room, the following references to specific spaces are for general space indications), in Carmen's office, east side by air handler, near desk, near conference table, west wall, and inside the wall access hatch; the former storage room, Kelli's office, Lisa & Marty's office, Bonnie's office; hallway, pipe chase and drinking fountain drain. A photo-ionization detector (PID) was used to count the number of reactive chemical molecules in the air and record the quantity in calculated parts per million (PPM).

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The instrument calculates and records in units of PPM, the average value of reactive gasses in the air and the peak value of any sampling period. The average value recorded for all of the sampling locations was 0.0 PPM. Several peak levels were recorded for known materials within some of the sample locations. See Table 1 – Air Sampling Results Summary.

Sampling Results

Air samples were collected and recorded in the instrument. Sample Numbers are generated by the instrument. The results are summarized below.

Table 1
Air Sampling Results Summary

Sample No.	Location	Average Count PPM	Peak value PPM	Known Material
87	Carmen's office, east side air unit	0.0	0.0	N/A
88	Carmen's desk	0.0	0.0	N/A
89	Conference table	0.0	24	Marker
90	Carmen's office, west wall	0.0	0.0	N/A
91	Break room	0.0	0.0	N/A
92	Marker	0.0	24.3	Marker
93	Break room floor	0.0	0.0	N/A
94	Store room / Kelli's office	0.0	54	Hand gel / nail polish
95	Lisa / Marty office	0.0	34	Lotion
96	Bonnie's office	0.0	0.0	N/A
97	Carmen's office p.m.	0.0	0.0	N/A
98	Carmen's office 11/13	0.0	0.0	N/A
99	South air handler	0.0	0.0	N/A
100	Marker	0.0	28	Marker
101	Carmen's office southwest corner	0.0	0.0	N/A
102	Lamp alarm	0.0	0.0	N/A
103	Hall pipe chase	0.0	0.0	N/A
104	Drinking fountain drain	0.0	0.0	N/A

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Findings

Based on instrument results of air samples for VOC counts, no unknown sources of VOC were identified. A few known sources of VOC were identified (hand gel, nail polish, lotions and markers), which is typically expected. The average level of VOC for the sampling time periods was 0.0 PPM.

The air sampling results indicate no evidence of unknown VOC in the office spaces of the 1st floor.

Based on interviews, the presence of an unknown/difficult to describe odor/sensation exists in the spaces observed.

The evidence compiled by this VOC screening, along with the results of previous mold sampling and other observations, does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our interviews, observations and testing results, we make the following recommendations:

- Thoroughly clean and disinfect the carpets and upholstery. We recommend steam extraction, followed by HEPA vacuuming after the carpet is completely dry.
- Use exceptional quality filters for the air in the spaces to collect any particulate material.
- Continue monitoring carbon monoxide and carbon dioxide levels. We recommend periodic twenty-four hour monitoring.

This VOC screening was conducted using a PID. The PID instrument samples the ambient air and ionizes any available molecules within a specific range of electro-photo ionization and records those ionization events. Other materials may be present that are beyond the ionization potential of the instrument. Those materials include, but are not limited to, particulates, simple gasses, (CO_2, CO, No_2, etc.) and inorganic chemicals.

If conditions persist after the recommended actions have been completed, additional assessment parameters may be discussed. We will be open to explore additional avenues of evaluation including possible dust identification, specific air analysis, general air analysis biological assessment or other parameters.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the air quality screening, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

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This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

KLEINFELDER
EXPECT MORE®

October 2, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

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Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria*, Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

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Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	107-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Pericoma / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Trichoderma								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien, Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #ST-RS-05.07-1/1LM

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	Sampling Method:	Air-O-Cell
Address:	1601 SW 41st Street	Analytical Method:	Spore Trap Analysis-102
	Topeka, KS 66609	CEI Lab Code:	107-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		Date Reported:	9/26/2007
Project Site:	KS Doc	Analyzed By:	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	5		6		7			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³	Total Count	Spores/m³
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts, Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Trichoderma								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

No Mold Detected

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien, Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

Tel: 919-481-1413
Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #S1RS 05 07 1/1LM

I07.0915 (7)
M20798-M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID#	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
99	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T M Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐ Explanation:

KLEINFELDER
EXPECT MORE®

November 30, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria,* Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

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Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Ulocladium								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

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Toll Free: 1-866-481-1412
Fax: 919-481-1442

Form #STRS.05.07.1/1LM

JCSBC
2-2-2016
<<Att.7.--431

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air-O-Cell
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	**I07-0915**
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	5		6		7			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces/Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Ulocladium								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.			**No Mold Detected**	
The Sample(s) in this report was/were received in acceptable condition.				

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

Carolina Environmental, Inc
107 New Edition Court
Cary, NC 27511

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Fax: 919-481-1442

Form #STRS.05.07.1/1LM

I07.0915 (7)
M20798.M20804

CAROLINA ENVIRONMENTAL, INC.

107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID #	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
11	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel Off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T V Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐	Explanation:

KLEINFELDER
An employee owned company

July 18, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
9th Floor Offices
Docking State Office Building
915 SW Harrison Street
Topeka, Kansas
Kleinfelder Project No. 59382 Task 1

Dear Mr. Balch:

Kleinfelder has completed the authorized limited mold air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of mold in the air in the above referenced offices.

Scope of Services

At the direction of DFM personnel, specific areas of the offices were observed and sampled. Observations of reported water-affected areas were conducted. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On July 7, 2005, in the company of DFM personnel, the affected rooms and spaces were observed. These rooms included the northeast corner office, east window spaces and west window spaces. Indications of colonial mold growth were not visually observed in the offices or spaces.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, the conference room (a presumed non-affected area), the hallway near the elevators and outdoors and sent to an accredited laboratory for analysis. (See Table 1 Sample Locations.) Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Findings and Conclusions

Active colonial growth of molds was not visually observed during the site reconnaissance. Air samples were collected and sent for accredited laboratory analysis. The laboratory report indicates that spores were analytically confirmed in all four (4) of the samples. The results are summarized below.

Table 1
Air Sample Locations

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
S 1	Northeast office / 150 L	*Alternaria*	2	2,214
		Ascospores	10	
		Basidiospores	150	
		Cladosporium	120	
		Other Colorless	2	
		Other Brown	1	
		Penicillium / Aspergillus	40	
		Smuts, *Myxomycetes, Periconia*	4	
		Other	3	
S 2	East center cubicles, east window / 210 L	*Alternaria*	0	726
		Ascospores	6	
		Basidiospores	72	
		Cladosporium	60	
		Other Colorless	1	
		Other Brown	0	
		Penicillium / Aspergillus	10	
		Smuts, *Myxomycetes, Periconia*	2	
		Other	1	
S 3	West center cubicles, west window / 150 L	*Alternaria*	1	461
		Ascospores	0	
		Basidiospores	52	
		Cladosporium	10	
		Other Colorless	1	
		Other Brown	2	
		Penicillium / Aspergillus	2	
		Smuts, *Myxomycetes, Periconia*	1	

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
S 4	Conference room / 150 L	*Alternaria*	1	449
		Ascospores	4	
		Basidiospores	34	
		Cladosporium	16	
		Other Colorless	1	
		Other Brown	3	
		Penicillium / Aspergillus	4	
		Smuts, *Myxomycetes, Periconia*	3	
		Other	1	
S 5	Hallway, near elevator / 150 L	*Basidiospores*	8	67
		Cladosporium	1	
		Penicillium / Aspergillus	1	
S 6	Outdoors / 180 L	*Alternaria*	168	19,446
		Ascospores	140	
		Basidiospores	700	
		Bipolaris / Drechslera	10	
		Cladosporium	2,100	
		Epicoccum	28	
		Fusarium	4	
		Nigrospora	1	
		Other Colorless	8	
		Other Brown	4	
		Penicillium / Aspergillus	84	
		Rusts	2	
		Smuts, *Myxomyctets, Periconia*	196	
		Stemphylium	1	
		Torula	6	
		Other	48	

Penicillium / Aspergillus, are related genera that cannot be reliably distinguished from each other by spore type alone.

The laboratory report is included in Appendix A. The results indicate no evidence of mold spore bioamplification. The spore counts in the samples obtained within the building were markedly lower than the outdoor counts indicating satisfactory performance of the HVAC system.

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Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 1

Based on the test results, the source(s) contributing to the reported questionable indoor air quality does not appear to be fungal spores. Although operation and maintenance procedures should continue to prevent and control moisture intrusion which can potentially lead to mold growth, evidence of mold spore bioamplification was not identified at the time of this sampling event.

The conclusions presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, expressed or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully Submitted

KLEINFELDER

For

Thomas W. Brennan
Industrial Hygiene Technician

Rowley R. Tedlock
Environmental Services Manager

Attachment

TWB/RRT:kr

cc: Kevin Fulton, Resource Management Office Services

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

July 13, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L205742-01	L205742-02	L205742-03	L205742-04
Client Sample Id:	S1	S2	S3	S4
Location:	S1	S2	S3	S4
Project # :	DFM D #9	DFM D #9	DFM D #9	DFM D #9
Collect Date:	07/07/05	07/07/05	07/07/05	07/07/05
Receive Date:	07/08/05	07/08/05	07/08/05	07/08/05
Analyzed Date:	07/13/05	07/13/05	07/13/05	07/13/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		210		150		150	
Background Debris*	Moderate		Moderate		Moderate		Moderate	
Limit of Detection (spores)	<2		<2		<2		<1	
Alternaria	2	13			1	7	1	7
Ascospores	10	67	6	29			4	27
Aureobasidium								
Basidiospores	150	1,000	72	343	52	347	34	227
Bipolaris/Drechslera								
Botrytis								
Chaetomium								
Cladosporium	120	800	60	286	10	67	16	107
Curvularia								
Epicoccum								
Fusarium								
Nigrospora								
Other Colorless	2	13	1	5	1	7	1	7
Other Brown	1	7			2	13	3	20
Penicillium/Aspergillus	40	267	10	48	2	13	4	27
Rusts								
Smuts,Myxomycetes,Periconia	4	27	2	10	1	7	3	20
Stachybotrys chartarum								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Other:								
Cercospora	2	13						
Pithomyces	1	7						
Scopulariopsis			1	5				
Zygophiala							1	7
Polythrincium								
Arthrinium								
Total Spores/m3		2,214		726		461		449

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

July 13, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L205742-05	L205742-06	L205742-07
Client Sample Id:	S5	S6	S7
Location:	S5	S6	BLANK
Project # :	DFM D #9	DFM D #9	DFM D #9
Collect Date:	07/07/05	07/07/05	07/07/05
Receive Date:	07/08/05	07/08/05	07/08/05
Analyzed Date:	07/13/05	07/13/05	07/13/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		180		Not applic	
Background Debris*	Moderate		Heavy		N/A	
Limit of Detection (spores)	<1		<4		<1	
Alternaria			168	933		
Ascospores			140	778		
Aureobasidium						
Basidiospores	8	53	700	3,889		
Bipolaris/Drechslera			10	56		
Botrytis						
Chaetomium						
Cladosporium	1	7	2100	11,667		
Curvularia						
Epicoccum			28	156		
Fusarium			4	22		
Nigrospora			1	6		
Other Colorless			8	44		
Other Brown			4	22		
Penicillium/Aspergillus	1	7	84	467		
Rusts			2	11		
Smuts,Myxomycetes,Periconia			196	1,089		
Stachybotrys chartarum						
Stemphylium			1	6		
Torula			6	33		
Ulocladium						
Zygomycetes						
Other:						
Cercospora			42	233		
Pithomyces						
Scopulariopsis			2	11		
Zygophiala						
Polythrincium			1	6		
Arthrinium			3	17		
Total Spores/m3		67		19,446		

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

Summary of Remarks For Samples Printed
07/13/05 at 17:12:01

TSR Signing Reports: 051
R4 - Required TAT

Sample: L205742-01 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-02 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-03 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-04 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-05 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-06 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

Sample: L205742-07 Account: GEOKSMOLD Received: 07/08/05 10:08 Due Date: 07/13/05 00:00 RPT Date: 07/13/05 16:59

KLEINFELDER
An employee owned company

October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
11th Floor Offices
Docking State Office Building
915 SW Harrison Street
Topeka, Kansas
Kleinfelder Project No. 59382 Task 3

Dear Mr. Balch:

Kleinfelder has completed the authorized limited mold air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of mold in the air in the above referenced offices.

Scope of Services

At the direction of DFM personnel, specific areas of the offices were observed and sampled. Observations of reported water-affected areas were conducted. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On October 6, 2005, in the company of DFM personnel, the affected rooms and spaces were observed. These rooms included the south office area, Lisa's office, Jill P. cubicle, classroom, and outdoors. Indications of colonial mold growth were not visually observed in the offices or spaces.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, the classroom (a presumed non-affected area), and outdoors and sent to an accredited laboratory for analysis. (See Table 1 Sample Locations) Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 3

Findings and Conclusions

Active colonial growth of molds was not visually observed during the site reconnaissance. Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all five (5) of the samples. The results are summarized below.

Table 1
Air Sample Locations

Sample No.	Location / Volume	Mold Species	Fungal Spore Raw Counts	Total Count Spores / m^3
1	South office near copier / 150 L	*Alternaria* *Basidiospores* *Cladosporium* *Epicoccum* *Penicillium / Aspergillus*	1 4 3 1 1	68
2	Lisa's office / 210 L	*Basidiospores* *Cladosporium* Rusts Smuts, *Myxomycetes, Periconia*	1 10 2 1	94
3	Jill P. cubicle / 150 L	*Basidiospores* *Cladosporium* Smuts, *Myxomycetes, Periconia*	6 4 8	120
4	Classroom/ 150 L	*Alternaria* *Basidiospores* *Cladosporium* *Penicillium / Aspergillus* Rusts Smuts, *Myxomycetes, Periconia*	1 2 1 12 2 1	127
5	Outdoors / 180 L	*Alternaria* *Ascospores* *Basidiospores* *Bipolaris / Drechslera* *Cladosporium* *Curvularia*	32 24 96 4 640 1	6,826

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		Epicoccum	8	
		Fusarium	2	
		Nigrospora	2	
		Other Colorless	32	
		Other Brown	2	
		Penicillium / Aspergillus	48	
		Rusts	5	
		Smuts, *Myxomyctets, Periconia*	112	
		Torula	2	
		Other	14	

Penicillium / Aspergillus, are related genera that cannot be reliably distinguished from each other by spore type alone.

The laboratory report is included in Appendix A. The results indicate no evidence of mold spore bioamplification. The spore counts in the samples obtained within the building were markedly lower than the outdoor counts indicating satisfactory performance of the HVAC system.

Based on the test results, the source(s) contributing to the reported questionable indoor air quality does not appear to be fungal spores. Although operation and maintenance procedures should continue to prevent and control moisture intrusion which can potentially lead to mold growth, evidence of mold spore bioamplification was not identified at the time of this sampling event.

The conclusions presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, expressed or implied, is intended or made.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Assessment
Docking State Office Building
9th Floor
Topeka, Kansas
Project No. 59382 Task 3

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Industrial Hygiene Technician

Rowley R. Tedlock
Environmental Services Manager

Attachment

TWB/RRT:kr

cc: Kevin Fulton, Resource Management Office Services

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

ENVIRONMENTAL SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

October 12, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L217962-01	L217962-02	L217962-03	L217962-04
Client Sample Id:	1	2	3	4
Location:	S End Near Copy	Lisa Office	Jill P Cube	Classroom
Project # :	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11
Collect Date:	10/06/05	10/06/05	10/06/05	10/06/05
Receive Date:	10/10/05	10/10/05	10/10/05	10/10/05
Analyzed Date:	10/12/05	10/12/05	10/12/05	10/12/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		150		150		150	
Background Debris*	Light		Light		Moderate		Light	
Limit of Detection (spores)	<1		<1		<1		<1	
Alternaria	1	7					1	7
Ascospores								
Aureobasidium								
Basidiospores	4	27	1	7	6	40	2	13
Bipolaris/Drechslera								
Botrytis								
Chaetomium								
Cladosporium	3	20	10	67	4	27	1	7
Curvularia								
Epicoccum	1	7						
Fusarium								
Nigrospora								
Other Colorless								
Other Brown								
Penicillium/Aspergillus	1	7					12	80
Rusts			2	13			2	13
Smuts,Myxomycetes,Periconia			1	7	8	53	1	7
Stachybotrys chartarum								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Other:								
Pithomyces								
Cercospora								
Scopulariopsis								
Oidium								
Total Spores/m3		68		94		120		127

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Non-Viable(Spore Trap)Mold Spore Report
ESC SOP# 350306
EMLAP/AIHA # 100789

Tom Brennan

October 12, 2005

Kleinfelder
1601 SW 41st Street
Topeka, KS 66609

ESC Sample # :	L217962-05	L217962-06
Client Sample Id:	5	BLANK
Location:	Outdoors	Blank
Project # :	59382 T3 DOCK BLD 11	59382 T3 DOCK BLD 11
Collect Date:	10/06/05	10/06/05
Receive Date:	10/10/05	10/10/05
Analyzed Date:	10/12/05	10/12/05

Parameter	Raw Counts	Spores/m3	Raw Counts	Spores/m3
Volume(liters)	150		Not applic	
Background Debris*	Heavy		N/A	
Limit of Detection (spores)	<4		<1	
Alternaria	32	213		
Ascospores	24	160		
Aureobasidium				
Basidiospores	96	640		
Bipolaris/Drechslera	4	27		
Botrytis				
Chaetomium				
Cladosporium	640	4,267		
Curvularia	1	7		
Epicoccum	8	53		
Fusarium	2	13		
Nigrospora	2	13		
Other Colorless	32	213		
Other Brown	2	13		
Penicillium/Aspergillus	48	320		
Rusts	5	33		
Smuts,Myxomycetes,Periconia	112	747		
Stachybotrys chartarum				
Stemphylium				
Torula	2	13		
Ulocladium				
Zygomycetes				
Other:				
Pithomyces	2	13		
Cercospora	10	67		
Scopulariopsis	1	7		
Oidium	1	7		
Total Spores/m3		6,826		

Claudia G. Zimmerman, ESC Representative

*Background debris is an indication of amount of non-fungal biological particulate matter present on the sample and is characterized as very light, light, Moderate, heavy or very heavy. Heavy background debris may reduce readability so that spore counts should be considered minimal.
Unless otherwise indicated samples were received in good condition.
Blank corrections have not been applied.

Company Name/Address: Kleinfelder Topeka

Alternate billing information:

Mail to:

Email to:

Project Description: Docking Bld. 11TH Floor

Phone:

FAX:

Client Project #: 59382 - T3

Collected by (print):

P.O.#:

Collected by (signature): T Brennan

Rush? (Lab MUST Be Notified)
____ Same Day. . . . . 2 X
____ Next Day. . . . . 1.75 X
____ Two Day . . . . . 1.5 X

Date Results Needed:

Email? __No X Yes

FAX? __No__Yes

Analysis Requested

Sample ID	Sample Description	Type *	Volume or Area	Date	Time	SPORE TRAP	DIRECT EXAM	QUANTITATIVE FUNGAL	CULTURABLE AIR FUNGI (ANDERSEN)	QUANTITATIVE BACTERIA	CULTURABLE AIR BACTERIA	E. COLI / COLIFORM (presence/absence)	ENTEROCOCCUS (presence/absence)	Remarks/	Sample # (lab only)
1	S. End, Near Copier	ST	150L	10/6		X									217982-01
2	Lisa's Office	ST	150			X									02
3	Jill P. Cube	ST	150			X									03
4	Classroom	ST	150			X									04
5	Outdoors	ST	150			X									05
Blank		ST	—			X									06

*Type = **Tape** - Tapelift , **Bulk** - Bulk , **Swab** - Swab , **CP** - Contact Plate , **SS** - Soil, **W** - Water , **ST** - Spore Trap : Allergenco, Zefon, (Air -O -Cell), **AF** - Andersen Fungal , **AB** - Andersen Bacterial

Comments: 3502 7552 1057

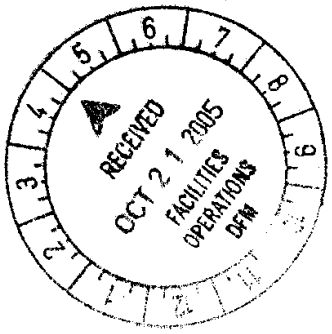
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: (lab use only)
T Brennan	10/7	12:00			
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Temp: 4.4 / Containers Received: 6	
Relinquished by (Signature)	Date:	Time:	Received for lab by (Signature)	Date: 10/10/05 / Time: 9:00	pH Checked: / NCF:

Chain of Custody Page ___ of ___

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

CoCode: (lab use only)
Template/Prelogin
Shipped Via:

KLEINFELDER
An employee owned company



October 19, 2005

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Mold Testing and Site Observations
Docking State Office Building
11th Floor - South
Topeka, Kansas
Proposal No TEV05073

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited mold testing services and site observations at the above referenced location in Topeka, Kansas. We understand that suspect mold has been reported in the office spaces, and observed on piping located in mechanical areas of the building, and sampling of the air is requested. In addition, observations of the site are requested in order to assess the origin of the moisture intrusions.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Based on experience and preliminary observations of the spaces involved, we anticipate five (5) air samples would be collected: three (3) in the effected areas, one (1) in a non-effected area, and one (1) outdoors.

B. Provide a Senior Staff Professional to observe the site.

C. Provide a written report documenting the findings and conclusions of the Mold testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L: 2005\Proposals\TOP5P315

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

The estimated fees for the services are itemized as follows:

Project Professional II	$ 750.00
Air Monitoring for Mold (Analytical)	$ 400.00
Summary Report	$ 500.00
Estimated Fee	$ 1,650.00

The estimated fee includes collection and analysis of up to five (5) mold air samples. Additional required samples, approved by you, will be billed at a rate of $35.00/sample for surface collection and analysis, $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Limited Mold Testing
Docking State Office Building – 11th Floor
Topeka, Kansas
TEV05073

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the signature blocks below and return a copy to our Topeka office to provide notice-to-proceed.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager

Rowley R. Tedlock
Environmental Services Manager

TWB:RT/kr

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: Dan Galeb (Print name of individual) FOR: Division of Facilities Management (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

D. KEITH MEYERS, DIRECTOR

K A N S A S

DEPARTMENT OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT

KATHLEEN SEBELIUS, GOVERNOR
DUANE A. GOOSSEN, SECRETARY
CAROL L. FOREMAN, DEPUTY SECRETARY

FAX TRANSMITTAL

TO: Thomas W Brennan
Kleinfelder

FAX NO.: (785) 267-7145

FROM: Dan Balch

DATE: October 24, 2005

PAGES: __4___ (Total pages including transmittal cover sheet)

SUBJECT: Proposal No TEV05073

COMMENT:

LANDON STATE OFFICE BUILDING, 900 SW JACKSON ST., STE. 653, TOPEKA, KS 66612-2210
Voice 785-296-8070 Fax 785-296-3456 http://da.state.ks.us/fm

TRANSMISSION VERIFICATION REPORT

TIME : 10/24/2005 11:46
NAME : DIV FACILITIES MNGT
FAX : 7852963456
TEL :
SER.# : BROH4J825065

DATE,TIME	10/24 11:45
FAX NO./NAME	92677145
DURATION	00:00:38
PAGE(S)	04
RESULT	OK
MODE	STANDARD ECM

KLEINFELDER
An employee owned company

January 4, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 SW Jackson, Room 600
Topeka, Kansas 66612

RE: Abatement Oversight & Clearance Sampling
Kansas Statehouse / Docking Building Tunnel
Topeka, Kansas
Proposal No TEV07001

Dear Mr. Balch:

The purpose of this letter is to provide a proposal for limited abatement oversight and clearance air sampling assessment services at the above referenced location in Topeka, Kansas. We understand that 9-inch by 9-inch floor tile and mastic is scheduled for removal and project oversight, perimeter air sampling, and clearance sampling of the air is requested. In addition, observations of the site are requested.

In connection with the tasks to be performed for this project, Kleinfelder will exercise reasonable efforts to accomplish these tasks employing professional standards applicable in today's area-wide industry.

This assessment will include the following scope of services:

A. Pre-work walk-through.

B. Provide perimeter barrier air monitoring outside the work area.

C. Provide clearance air monitoring at the conclusion of the scheduled work.

D. Provide a Senior Staff Professional to observe the site.

E. Provide a written report documenting the findings and conclusions of the Air Quality testing including recommendations for additional work, if appropriate. The report will include observations, tabulated test results, sample locations and material conditions. The report will not contain sample location diagrams or extent of material drawings.

L:2007\Proposals\TOP7P003

The estimated fees for the services are itemized as follows:

Project Professional II	$ 1,400.00
Air Monitoring (Analytical)	$ 400.00
Summary Report	$ 1,000.00
Estimated Fee	$ 2,800.00

The estimated fee includes collection and analysis of up to fifteen (15) air samples. Additional required samples, approved by you, will be billed at a rate of $58.00/sample for air sample collection and analysis if required. A final invoice will be submitted upon completion of the project. The actual fee will be based on the actual number of units performed in accordance with the Unit Fee Schedule in our "On-Call" Agreement for Services. If conditions are encountered that require major revisions in the sampling program or result in higher costs, we will contact you prior to proceeding with any additional work to discuss the matter and obtain authorization to proceed. The work will be performed in accordance with the provisions of the agreement between DFM and Kleinfelder dated July 8, 2005.

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or if any results are obtained that they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent certain results of this work may be based on subjective interpretation. Kleinfelder makes no warranties, express or implied, including without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in the report is not to be construed as legal advice.

Further, there can be no assurance that any sampling techniques, if employed, will necessarily disclose all contaminants at the site due, among other things and without limitation, to such factors as a practical and contractual limitation on the number and location of samples, and the like. Further, Kleinfelder assumes no risk for existing conditions on the site or for the consequential effects which may result from testing that conformed to reasonable professional standards applicable in the industry at the time the work was performed.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Thank you for the opportunity to present this proposal. If you have any questions, or if we may be of further assistance, please contact us at 785-267-7131. Please execute the attached notice-to-proceed and return a copy to our Topeka office.

Respectfully submitted,

KLEINFELDER

Thomas W. Brennan
Project Manager
TWB:FDA/kr

Franky D. Arnwine, R.G.
Environmental Group Manager

NOTICE-TO-PROCEED AND ACCEPTANCE OF AGREEMENT

BY: _____ FOR: _____
(Print name of individual) (Print Name of firm)

Please fax Notice-to-Proceed to 785-267-7145 as soon as possible and return a signed original for our records.

L:2007\Proposals\TOP7P003

KLEINFELDER
EXPECT MORE®

November 30, 2007

Mr. Dan Balch
State of Kansas
Division of Facilities Management
900 Jackson
Topeka, Kansas 66612

RE: Air Quality Testing
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 87886

Dear Mr. Balch:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne mold spores in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On September 25, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces, the south hallway, and outdoors.

Kleinfelder personnel established a limited sampling protocol for mold spores in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), the hallway and outdoors. The samples collected were sent to an accredited laboratory, using chain-of-custody procedures, for analysis.

Findings and Conclusions

Currently, there are no Kansas regulations limiting airborne and surface microbial contaminants in indoor environments. The environmental evaluation criteria used for assessing the results of this assessment include guidelines provided by the microbial testing laboratory and peer-reviewed references.

KLEINFELDER 1601 S.W. 41st Street, Topeka, KS 66609 (785) 267-7131 (785) 267-7145 fax

Indications of current colonial mold growth were not visually observed in the office spaces.

Sampling Results

Air samples were collected and sent to an accredited laboratory for analysis. The laboratory report indicates that spores were analytically confirmed in all six (6) of the samples. The results are summarized below.

Table 1
Sample Locations Summary

Sample No.	Location	Fungal Spore Count	Total Count Spores / m^3
1	Outside	4,280	29,000
2	Car. Office	458	3,100
3	L & M Office	72	480
4	Kelli Office	70	470
5	Storage	82	550
6	Hallway	1,678	11,000
Blank	Blank	---	---

The laboratory report is included in Appendix A.

Findings

Based on laboratory analysis of air samples for mold species identification and relative spore counts, the mold species identified in the indoor and outdoor samples were generally similar. A few additional mold species were identified in the outdoor sample, which is typically expected.

The species represented in the analysis are not considered toxigenic, although *Alternaria,* Ascocpores and *Cladosporium* spores can induce allergic responses in sensitive individuals when the mold spore counts are extremely high. Allergic responses to *Penicillium / Aspergillus* in sensitive individuals has also been reported. *Penicillium / Aspergillus*, are reported as "combined" as they are related genera that cannot be reliably distinguished from each other by spore type alone.

Bioamplification of mold spores can be reported if mold spore counts indoors are similar to outdoor spore counts. Under normal conditions, the indoor mold spore concentrations should be at least an order of magnitude less than the outdoor levels. (Ex. - If the outdoor numbers were analyzed as in the thousands, then the indoor counts should be in the hundreds.)

The air sampling results indicate no evidence of mold spore bioamplification in the office spaces of the 1st floor. The numbers of mold spore counts that appear in the laboratory analysis indicate the HVAC system is functioning in a normal capacity.

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Mold growth episodes are precipitated by moisture events. Only in the presence of moisture will mold grow. No moisture events were observed during the site visit. We conclude the mold spores observed in the laboratory analysis were from a previous moisture event.

The evidence does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our observations and testing results, we make the following recommendations:

- Continue efforts to prevent moisture intrusion from plumbing and outside sources.
- Continue efforts to control moisture that does infiltrate or collect on the interior spaces.
- Clean surface mold growth, if observed.

According to the Air Conditioning, Heating, Ventilation, Refrigeration (ASHRAE) guidelines, "relative humidity above 60% may result in mold problems." (ASHRAE Standard 55-1992) Operation and maintenance procedures should continue efforts to prevent and control moisture intrusion which can potentially lead to mold growth.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the laboratory tests, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,
KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

Attachment
TWB/FDA:kr

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CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air Cassette
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	I07-0915
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20798		M20799		M20800		M20801	
Client Sample ID	1		2		3		4	
Location	Outside		Car Off		L & M Off		Kel Off	
Volume (L)	150		150		150		150	
Debris Rating	Moderate		Moderate		Moderate		Moderate	
Pollen count	8		3		2		1	
Mycelial fragments	39		4		1		4	
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	9	60	2	13	2	13	1	7
Arthrinium								
Ascospores	3,514	23,000	435	2,900	58	390	57	380
Aspergillus / Penicillium	129	860	2	13			7	47
Basidiospores	87	580			1	7	1	7
Bipolaris / Drechslera	2	13						
Cercospora	11	73						
Chaetomium								
Cladosporium	392	2,600	16	110	7	47	2	13
Curvularia	1	7			1	7		
Epicoccum								
Fusarium								
Helicomyces/Helicosporium								
Nigrospora	6	40						
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	112	750	1	7			1	7
Pithomyces	5	33	2	13	3	20	1	7
Rusts	8	53						
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula	4	27						
Ulocladium								
Unspecified Spores								
Total	4,280	29,000	458	3,100	72	480	70	470
Limit of Detection (Spores/m3)	7		7		7		7	

Comments: No discernable field blank was included with this project.

The Sample(s) in this report was/were received in acceptable condition.

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

AIHA EMLAP No. 103025

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Cary, NC 27511

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Form #STRS.05.07.1/1LM

JCSBC
2-2-2016
<<Att.7.--459

CAROLINA ENVIRONMENTAL, INC.

LABORATORY REPORT

FUNGAL ANALYSIS - AIR

Client:	Kleinfelder	**Sampling Method:**	Air-O-Cell
Address:	1601 SW 41st Street	**Analytical Method:**	Spore Trap Analysis-102
	Topeka, KS 66609	**CEI Lab Code:**	**I07-0915**
		Date Received:	9/26/2007
		Date Analyzed:	9/26/2007
Project ID:		**Date Reported:**	9/26/2007
Project Site:	KS Doc	**Analyzed By:**	Ed O'Brien

CEI Sample ID	M20802		M20803		M20804			
Client Sample ID	**5**		**6**		**7**			
Location	Store		Hallway		BLANK			
Volume (L)	150		150		N/A			
Debris Rating	Moderate		Heavy					
Pollen count	4		6					
Mycelial fragments	3		19					
	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3	Total Count	Spores/m^3
Alternaria	1	7	8	53				
Arthrinium								
Ascospores	65	430	1,508	10,000				
Aspergillus / Penicillium	1	7	8	53				
Basidiospores			6	40				
Bipolaris / Drechslera			1	7				
Cercospora								
Chaetomium								
Cladosporium	5	33	112	750				
Curvularia			2	13				
Epicoccum			1	7				
Fusarium								
Helicomyces/Helicosporium			4	27				
Nigrospora								
Oidium / Peronospora								
Periconia / Smuts / Myxomycetes	6	40	19	130				
Pithomyces	3	20	6	40				
Rusts	1	7	3	20				
Spegazzinia								
Stachybotrys								
Stemphylium								
Tetraploa								
Torula								
Ulocladium								
Unspecified Spores								
Total	82	550	1,678	11,000				
Limit of Detection (Spores/m3)	7		7					

Comments: No discernable field blank was included with this project.			**No Mold Detected**	
The Sample(s) in this report was/were received in acceptable condition.				

The above results relate only to the items tested, and cannot be extrapolated to anything larger than their original intent. Also, these results cannot be interpreted without physical inspection and consideration for the building's characteristics and factors that may have led to its condition.

Note: Final counts (Spores/m3) are reported to 2 significant figures.

Ed O'Brien , Analyst

Final Review By: Tianbao Bai, Ph.D., CIH, Lab Director

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2-2-2016
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I07.0915 (7)
M20798.M20804

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107 New Edition Court, Cary, NC 27511
Tel: 919-481-1413 Fax: 919-481-1442

CHAIN OF CUSTODY RECORD
MICROBIOLOGY ANALYSIS

Client: Kleinfelder	**Project Manager:** Thomas Brennan
Address: 1601 SW 41st Street	**Date:**
Topeka, Ks	**Phone:** 785-267-7131
Client ID#:	**Fax:** 785-267-7145
PO #:	**Project ID:**
Project: Ks Doc	

ANALYSIS CODES

101	Fungi Tape (Direct Surface)	107	Fungi & Bacteria Culture (Bulk, Dust, Wipe)
102	Fungi Total (Air-O-Cell)	108	Pollen
103	Fungi Culture (Air)	109	Dust Characterization
104	Fungi Culture (Bulk, Dust, Wipe)	110	Respirable or Total Dust
105	Bacteria Culture (Air)	111	Allergens Mite (Various Species)
106	Bacteria Culture (Bulk, Dust, Wipe)	112	Allergens Animal (Various Species)

TURN-AROUND TIME

- ☐ 7-14 DAYS*
- ☐ 3-5 DAYS
- ☐ 48 HOURS
- ☐ 24 HOURS
- ☐ SAME DAY

* All cultures are 7-14 day TAT

SAMPLE INFORMATION

	FIELD ID #	SAMPLE LOCATION	ANALYSIS CODES	AREA (sq. inches)	AIR VOLUME (liters)
M20798	1	outside	102		150
11	2	Car Off	102		150
500	3	L + M Off	102		150
01	4	Kel Off	102		150
02	5	Store	102		150
03	6	Hallway	102		150
04					

REMARKS:

Relinquished By: T V Brennan	Date / Time: 9/25/07
Received By: Kristi Pruitt	Date / Time: 9/26/07 9:25 am

LAB USE ONLY

Sample Condition Upon Receipt:	Acceptable ☒	Not Acceptable ☐	Explanation:

RESPONSIBILITY ASSIGNMENTS
FOR
SOFT COSTS CHECKLIST
DOCKING BUILDING

September10, 2004

1. SITE INVESTIGATION

- Soils Borings - **GLPM**
- Exploratory Investigation - **DFM**
- Surveys - **GLPM**
- Environmental Audit - **DFM**
- Hazardous Contamination Reports - **DFM**
- Regulatory Fees - **TURNER**
- Environmental Cleanup - **TURNER**

2. PROFESSIONAL FEES

- A/E Fees - **GLPM**
  - Lighting
  - Acoustical
  - Vertical Transportation
  - Site, Utilities
  - Base Building
- Civil - **GLPM**
- Interior Design - **GLPM**
- Dietary Consultant - **GLPM**
  - Food Service
- Graphics Consultant - **GLPM**
- Equipment Planning - **GLPM**
- Testing and Inspection - **TURNER/GLPM**
- T&B, Commissioning – **TURNER/GLPM**

3. FINANCING RELATED

- Feasibility Studies - **DFM**
- Bond Council - **DFM**
- Loan Acquisition Costs - **DFM**
- Construction Interest - **DFM**
- Permanent Financing Costs - **DFM**
- Closing Costs - **DFM**
- Zoning Fees - **DFM**
- Legal Expenses - **DFM**
- Feasibility Study - **DFM**
- Investment Banker/Bond Underwriter - **DFM**

4. MISCELLANEOUS

- Builder's Risk Insurance - **TURNER**
- Site Acquisition – **N/A**

- Misc. Equipment
  - Furniture – **TURNER/GLPM**
  - Window Washing – **NIC**
  - Rubbish Removal/Compactor – **NIC**
  - Maintenance – **NIC**
  - Files – **NIC**
- Special Equipment
  - Kitchen - **TURNER**
  - Dining Room - **TURNER**
  - Medical – **NIC**
  - Computer - **NIC**
  - Telecommunications RI – **TURNER**
  - Telecommunications Eq. - **NIC**
  - Audio Visual - **TURNER**
- Signage, Including Directory - **TURNER**
- Public Relations – **N/A**
- Miscellaneous Travel – **N/A**
- Personnel Relocation - **DFM**
- Department Relocation - **DFM**
- Owner's Project Staff - **DFM**
- Security Equipment, Electronic Surveillance, Card Key, etc. - **TURNER**
- Utility Service Charges - **TURNER**
- Document Printing - **TURNER**
- Window Treatments - **TURNER**
- Art - **NIC**
- Fountains - **TURNER**

5. CONTINGENCY

- Project Contingency (5% - 7%) (Over and above Construction Contingency) - **DFM**

KLEINFELDER
EXPECT MORE®

November 28, 2007

Mr. George Werth, Chief Engineer
State of Kansas Division of Facilities Management
900 SW Jackson Street, Room 600
Topeka, Kansas 66612-2210

RE: Air Quality Screening
Docking Office Building, 1st Floor
Topeka, Kansas
Kleinfelder Project No. 78215, Task 12

Dear Mr. Werth:

Kleinfelder has completed the authorized limited air quality testing at the above referenced location. The purpose of the sampling was to quantify levels of airborne volatile organic chemicals (VOC's) in the spaces sampled.

Scope of Services

At the direction of DFM personnel, specific areas of the 1st floor were observed and sampled. A sampling strategy was developed based on the observations of the affected areas. Interviews of personnel were conducted.

Methods

On November 7, 8 and 13, 2007, in the company of DFM personnel, Kleinfelder staff observed the affected rooms and spaces. These spaces included office spaces and the south hallway.

Kleinfelder personnel established a limited sampling protocol for VOC's in air. Air samples were collected from the offices and spaces observed, a storage office, (a presumed non-affected area), and the hallway. Several areas of concern within the offices were sampled as areas of possible sources for indoor air quality (IAQ) contaminants. Those areas included: the southeast office suite (the southeast office suite is made up of the Directors office, cubicle spaces and a storage room, the following references to specific spaces are for general space indications), in Carmen's office, east side by air handler, near desk, near conference table, west wall, and inside the wall access hatch; the former storage room, Kelli's office, Lisa & Marty's office, Bonnie's office; hallway, pipe chase and drinking fountain drain. A photo-ionization detector (PID) was used to count the number of reactive chemical molecules in the air and record the quantity in calculated parts per million (PPM).

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The instrument calculates and records in units of PPM, the average value of reactive gasses in the air and the peak value of any sampling period. The average value recorded for all of the sampling locations was 0.0 PPM. Several peak levels were recorded for known materials within some of the sample locations. See Table 1 – Air Sampling Results Summary.

Sampling Results

Air samples were collected and recorded in the instrument. Sample Numbers are generated by the instrument. The results are summarized below.

Table 1
Air Sampling Results Summary

Sample No.	Location	Average Count PPM	Peak value PPM	Known Material
87	Carmen's office, east side air unit	0.0	0.0	N/A
88	Carmen's desk	0.0	0.0	N/A
89	Conference table	0.0	24	Marker
90	Carmen's office, west wall	0.0	0.0	N/A
91	Break room	0.0	0.0	N/A
92	Marker	0.0	24.3	Marker
93	Break room floor	0.0	0.0	N/A
94	Store room / Kelli's office	0.0	54	Hand gel / nail polish
95	Lisa / Marty office	0.0	34	Lotion
96	Bonnie's office	0.0	0.0	N/A
97	Carmen's office p.m.	0.0	0.0	N/A
98	Carmen's office 11/13	0.0	0.0	N/A
99	South air handler	0.0	0.0	N/A
100	Marker	0.0	28	Marker
101	Carmen's office southwest corner	0.0	0.0	N/A
102	Lamp alarm	0.0	0.0	N/A
103	Hall pipe chase	0.0	0.0	N/A
104	Drinking fountain drain	0.0	0.0	N/A

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Findings

Based on instrument results of air samples for VOC counts, no unknown sources of VOC were identified. A few known sources of VOC were identified (hand gel, nail polish, lotions and markers), which is typically expected. The average level of VOC for the sampling time periods was 0.0 PPM.

The air sampling results indicate no evidence of unknown VOC in the office spaces of the 1st floor.

Based on interviews, the presence of an unknown/difficult to describe odor/sensation exists in the spaces observed.

The evidence compiled by this VOC screening, along with the results of previous mold sampling and other observations, does not support any condition of emergency status for the spaces observed. The evidence indicates normal functioning of the HVAC system, and normal conditions within a building envelope.

Recommendations

Based on our interviews, observations and testing results, we make the following recommendations:

- Thoroughly clean and disinfect the carpets and upholstery. We recommend steam extraction, followed by HEPA vacuuming after the carpet is completely dry.
- Use exceptional quality filters for the air in the spaces to collect any particulate material.
- Continue monitoring carbon monoxide and carbon dioxide levels. We recommend periodic twenty-four hour monitoring.

This VOC screening was conducted using a PID. The PID instrument samples the ambient air and ionizes any available molecules within a specific range of electro-photo ionization and records those ionization events. Other materials may be present that are beyond the ionization potential of the instrument. Those materials include, but are not limited to, particulates, simple gasses, (CO_2, CO, No_2, etc.) and inorganic chemicals.

If conditions persist after the recommended actions have been completed, additional assessment parameters may be discussed. We will be open to explore additional avenues of evaluation including possible dust identification, specific air analysis, general air analysis biological assessment or other parameters.

The conclusions and recommendations presented in this report are based in part upon the site conditions observed during the site visit, results of the air quality screening, interviews and from other information discussed in this report. This report reflects conditions as they existed at the time of the site visit.

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This report has been prepared for the exclusive use of our client for the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. No warranty, express or implied, is intended or made.

Thank you for the opportunity to be of service to the State of Kansas Division of Facilities Management. If you have any questions about this report, please contact us at 785-267-7131.

Respectfully submitted,

KLEINFELDER CENTRAL, INC.

Thomas W. Brennan
Industrial Hygiene Technician

Franky D. Arnwine, R.G.
Environmental Group Manager

TWB/FDA:kr

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