



## Astex Environmental Services, Inc.

123 Catalpa · San Antonio, TX 78209

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March 10, 2008

Mr. Lucas Oliva  
Design Manager Real Estate Services  
San Antonio Housing Authority  
818 S. Flores  
San Antonio, Texas 78204  
Phone: (210) 477-6004  
Email: lucas\_oliva@saha.org

RE: Limited Mold Inspection, 618 Villa Linda, San Antonio, Texas  
Astex Project #AES-08-J-4755

Dear Mr. Oliva,

Pursuant to your request, on March 5, 2008, Mr. Ron Greenberg of Astex Environmental Services, Inc. (AES), Texas Department of State Health Services (TDSHS) Mold Assessment Consultant MAC 0509 conducted a Limited Mold Inspection within the unoccupied home at 618 Villa Linda, San Antonio, Texas to investigate the general microbial conditions in the home prior to sale.

It should be noted that Astex inspected five residences within the same block and the three outside comparison/control samples were taken in the middle of the cul-de-sac; rear of 602 Villa Linda and on the corner of Villa Linda and Villa Rosa and all three samples are shown on all five reports since they are being used as control levels for all five properties.

### *Scope of Work*

The scope of work for this limited inspection included the collection of the following samples:

- Air samples (Allergenco brand cassettes) were collected in the following locations for the analysis of Total Bioaerosols:

1. inside – at the return air intake - 1 sample
2. inside – hallway between bedrooms - 1 sample
3. inside – master bedroom – 1 sample
4. kitchen/laundry – 1 sample
5. outside comparison/control samples - 3 samples (see note above)

Note: These samples were delivered to the contract lab, Crisp Analytical Laboratories, LLC, 2081 Hutton Dr., Carrollton, Texas 75006, for analyses in accordance with the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) as well as following the Food and Drug Administration (FDA) Good Laboratory Practice Guidelines.

### ***Visual and Moisture Inspection Results***

No visible mold and/or evidence of water intrusion were observed within the house or garage and no indications of moisture within the wall materials was noted.

### ***Temperature and Humidity Levels***

Temperature readings within the house were from 65.1 to 74.3 degrees Fahrenheit and humidity was noted to be between 27.2 to 30.7 percent

### ***Analytical Results***

The Allergenco Air Samples were collected by Astex personnel on the morning of March 5, 2008 and were delivered to the contract lab for analysis of total bioaerosols with the results being made a part of this report. The data generated in this report is based on the samples and accompanying information provided and represents concentrations at a point in time under the conditions sampled. Keep in mind, sample values fluctuate widely and single point-in-time samples can be highly variable.

Currently, there are no regulations, federal or state, establishing action limits for mold spores and mold particulates in indoor air. Also, there are no species of molds identified to be hazards to public health. Current practice is to compare interior to exterior samples, noting the species present and the contrasting levels of spores and particle.

During this limited investigation, the following observations were noted:

#### **Fungal Spores (Allergenco):**

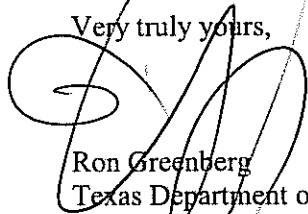
- Although the indoor air in general had acceptable levels of total fungal spores (1,152 to 1,440 count/M<sup>3</sup>) compared to outdoor air (2,592 to 3,888 count/M<sup>3</sup>) and the distribution of spores was typical of the outdoor air with *Cladosporium* being the dominant type, low levels of *Aspergillus*/*Penicillium*-like spores were detected inside (144 to 192 count/M<sup>3</sup>) versus none (0) reported in the outside control samples. The *Aspergillus*/*Penicillium*-like spores were detected in the samples at the return air (and living room) and in the master bedroom sample.

***Conclusions/Recommendations***

- Although the indoor air generally had acceptable levels of total fungal spores, the fact that there were *Aspergillus/ Penicillium*-like spores detected inside, indicates that at least select areas of the residence should be scheduled for cleaning by a mold abatement company. An air scrubber should be placed in close proximity of the HVAC return and in the master bedroom and at a minimum, those specific areas (including the living room) should HEPA vacuumed and sanitized.

Previous or future changes in mold concentrations cannot be inferred from these sample results. Please contact me at 210-828-9800 with any questions.

Very truly yours,



Ron Greenberg  
Texas Department of State Health Services (TDSHS)  
Mold Assessment Consultant No. MAC 0509

Attachments:            Chain of Custody  
                                 Laboratory Results

**INDOOR AIR QUALITY  
ALLERGENIC PARTICLE  
LABORATORY ANALYSIS REPORT**

Astex Inc.  
123 Catalpa  
San Antonio, TX 78209  
phone: 210-828-9800  
fax: 210-829-4927  
reference number: CAL08031512

PO #:  
Turnaround Time: 24 Hours  
Received: 03/06/08 8:30 am

**LABORATORY ANALYSIS METHOD:**

Summary of light microscopy analysis of allergenic particles in tape or air cassettes. Tape lift samples indicate presence or absence and identification of known allergenic particles. Air cassettes can be quantified in airborne concentrations (total counts/m<sup>3</sup>). Pollen and fungus type qualifications are based on keys and reference standards for known allergenic types. Sample analysis is performed by professionally trained individuals. This test report relates only to items tested. This report does not imply endorsement by any US Government agency. This report may not be reproduced except in full, without written permission from CA Labs. CA Labs - Dallas is accredited by AIHA for viable fungi analysis.

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. If there are concerns about health aspects of known allergens, consult a physician. Pollen and spore types identified are all naturally occurring and may grow anywhere in a natural environment where water is present. While it is normal for fungi to be present inside buildings from outside sources, growth occurs in humid conditions. Fungi cannot spread from building to building, as it is always present, but may not be growing. To control allergens in an area, drying and use of HEPA filters are recommended. Bias is present in all types of spore trap cassettes by particle size, capture, spread and counting procedure used. Quantification is susceptible to variance of 100% and standard deviation to 200%. Unless notified in writing to return samples covered by this report, CA Labs will store the samples for thirty (30) days before discarding. A shipping and handling fee may be assessed for the return of any samples. This method is not covered by the scope of NVLAP or AIHA accreditation.

This report is intended for the recipient, only. Please notify us if you have received this document in error  
(we will advise you to destroy or return this document.)

Analysis performed at Crisp Analytical Labs, L.L.C. 2081 Hutton Dr. Suite 301  
Carrollton, TX 75006; phone (972)488-1414, fax (972)488-8006, after-hours  
mobile (214)564-8366.

**Crisp Analytical Labs, L.L.C. / C.A. Labs, L.L.C. / Crisp Analytical Labs at Houston, L.L.C.**

Client: Astex Inc. Allergenic Particle Report CA Lab Project #: CAL08031512 Date: 03/06/08  
 Address: 123 Catalpa San Antonio, TX 7820 Analysis: Light Microscopy identification of pollen/fungal spore per CA Labs Air-o-cell method Project name: 618 Villa Linda AES-08-J-4755 page #1  
 Attn: Ron Greenberg Sample media : Air-o-cell / Cyclax D (airborne )

Sample #	4755-117		4755-118		4755-119		4755-120		Total	Per- cent
	Inside Return	75	Inside Hall	75	Inside M. Bedroom	75	Inside Kitchen	75		
Alternaria			4	48	3.4		4	48	3.3	
Ascomycetes	7	96	8.3			7	96	7.1	4	48
Basidiomycetes										
Botrytis										
Chaetomium										
Cladosporium	68	912	79.2	94	1,248	89.7	79	1,056	101	1,344
Curvularia										
Dreschlera/Bipolaris										
Epicoccum				7	96	6.9				
Oidium/Pero										
Nigrospora										
Penicillium/Asp	11	144	12.5			14	192	14.3		
Periconia/Myx										
Pithomyces										
Pseudo/Cercospora										
Rust										
Smut										
Stachybotrys										
Pollen										
Hypphae	4	48		4	48		4	48		
Particulate	4	48		4	48		4	48		
	66	1,152		104	1,392		101	1,344	109	1,440
	Total	Cnts./	Per-	Total	Cnts./	Per-	Total	Cnts./	Total	Per-
	Cnts.	m3	cent	Cnts.	m3	cent	Cnts.	m3	Cnts.	cent

Crisp Analytical Labs, L.L.C. 2081 Hutton , Suite 301 Carrollton, TX 75006  
 Dallas Baton Rouge Houston  
 Analyst - Chad Lytle General Manager - Leslie Crisp