

STC

Environmental Services Inc.
Environmental Scientists and Engineers

4754 RESEARCH DRIVE

SAN ANTONIO, TEXAS 78240

Office (210) 696-6286 / FAX (210) 696-8761

July 9, 2007

Ms. Rachel Peña
SAHA
818 S. Flores Street
San Antonio, Texas 78204

RE: Report of Mold Clearance Testing of 142 Villa Grande, San Antonio, Texas
STC Project 27230R2R2

Ms. Peña:

In accordance with your request, we have conducted mold clearance testing at the above reference location. This air sampling consisted of bioaerosols air sampling of selected areas. The sampling was completed on June 29, 2007.

PROJECT INFORMATION

STC was asked to conduct mold clearance testing after remediation in response to a mold assessment conducted by Mr. David O. Scheiding P.E. of STC Environmental Services. Mr. Scheiding is a Texas Licensed Mold Consultant (MAC0174). The following comments document the results of the mold clearance sampling completed on June 29, 2007 in response to the mold remediation protocol documented by STC Report dated May 7, 2007.

During the indoor air quality investigation completed on April 23, 2007, it was determined that the HVAC system was becoming impacted with mold. It was recommended that the HVAC unit core and ducts be cleaned. After cleaning it was recommended that a retest of the HVAC unit be conducted. This retesting was the air sampling completed on June 29, 2007.

RESULTS OF THE INDOOR AIR QUALITY INVESTIGATION

Visual Inspection and Interviews

Upon arrival, STC inspected the HVAC return air and outlets for any visible evidence of mold. No evidence of build-up of mold was noted (See Photos 1, 2, 3 and 4).

Based on the above inspection, the following air samples were collected.

- A-1 Breathing environment from HVAC outlet closest to the HVAC unit
- A-2 Breathing environment by HVAC return vent

A-3 Outside

The three (3) air samples collected on June 29, 2007 were submitted to EMSL Analytical, Inc. in Houston, Texas for analysis for mold and fungi levels and identification. EMSL is a Texas licensed mold laboratory (LAB0105).

Air Sample Results

Three (3) air samples were collected for this clearance. The following tables depict the results of the air sampling.

**TABLE I
AIR SAMPLING RESULTS FOR
MOLD AND POLLEN SPORES**

Sample ID and Location	Particle ID	Concentration Particles/Cubic Meter	Adjusted for Outside
A-1 – Breathing environment from HVAC outlet closest to HVAC unit	Agrocybe/Coprinus	ND	N/A
	Alternaria	42	Less than outside
	Arthrospores	ND	N/A
	Ascospores	ND	N/A
	Aspergillus/Penicillium	ND	N/A
	Arthrinium	ND	N/A
	Basidiospores	ND	N/A
	Bipolaris	42	Less than outside
	Chaetomium	ND	N/A
	Cladosporium	42	Less than outside
	Curvularia	ND	N/A
	Epicoccum	ND	N/A
	Fusarium	ND	N/A
	Myxomycete	ND	N/A
	Nigrospora	ND	N/A
	Peronospora	ND	N/A
	Pithomyces/Ulocladium	ND	N/A
	Stachybotrys	ND	N/A
	Scopulariopsis	ND	N/A
	Smut	ND	N/A
	Tetraploa	ND	N/A
	Spegazzinia	ND	N/A
	Unidentifiable spores	ND	N/A
Total Mold	126	Less than outside	
Total Pollen	ND	N/A	
Hyphal Fragment	ND	N/A	
Fibrous Particulate	ND	N/A	
Insect Fragments	ND	N/A	

Sample ID and Location	Particle ID	Concentration Particles/Cubic Meter	Adjusted for Outside
A-2 – Breathing environment by HVAC return vent	Agrocybe/Coprinus	ND	N/A
	Alternaria	ND	N/A
	Arthrospores	ND	N/A
	Ascospores	ND	N/A
	Aspergillus/Penicillium	ND	N/A
	Arthrinium	ND	N/A
	Basidiospores	ND	N/A
	Bipolaris	210	Greater than outside
	Chaetomium	ND	N/A
	Cladosporium	1430	Greater than outside
	Curvularia	ND	N/A
	Epicoccum	42	Greater than outside
	Fusarium	ND	N/A
	Ganoderma	ND	N/A
	Nigrospora	ND	N/A
	Myxomycete	ND	N/A
	Pithomyces	ND	N/A
	Stachybotrys	ND	N/A
	Unidentifiable spores	42	Less than outside
	Total Mold	1720	N/A
Total Pollen	ND	N/A	
Hyphal Fragment	42	Equal to outside	
Fibrous Particulate	42	Equal to outside	
Insect Fragments	ND	N/A	
A-3 – Outside	Agrocybe/Coprinus	ND	N/A
	Alternaria	378	N/A
	Arthrospores	ND	N/A
	Ascospores	504	N/A
	Aspergillus/Penicillium	ND	N/A
	Arthrinium	ND	N/A
	Basidiospores	ND	N/A
	Bipolaris	84	N/A
	Cercospora	924	N/A
	Chaetomium	672	N/A
	Cladosporium	42	N/A
	Curvularia	ND	N/A
	Epicoccum	ND	N/A
	Fusarium	ND	N/A
	Ganoderma	42	N/A
	Nigrospora	ND	N/A
	Myxomycete	84	N/A
	Pithomyces	ND	N/A
	Stachybotrys	ND	N/A
	Unidentifiable spores	126	N/A
Total Mold	2860	N/A	
Total Pollen	42	N/A	
Hyphal Fragment	42	N/A	
Fibrous Particulate	ND	N/A	
Insect Fragments	42	N/A	

Air Sample Discussion (General)

The results of air sampling should always include a comparison to outside levels at the time of indoor sampling. This is required since make-up air for the HVAC unit comes from outside as well as outside air entering with normal door opening during entry and departure events. It also should be noted that there are **NO** specified levels of mold/fungi that are considered harmful to humans. Each individual has a different tolerance level for molds/fungi species. In addition, different geographical locations also have a wide variance of air quality levels. Therefore what is considered normal outside in one (1) geographical area may never occur in other geographical areas.

It is generally accepted that “normal” outside levels are 1,200 or 12,000 counts/m³ depending on Laboratory Protocol, with the majority of the particles made up of the common species of Aspergillus/Penicillium and Cladosporium. Based on this outside “normal” level, the inside level that is accepted as “normal” is 300 or 3,000 counts/m³. Essentially acceptable indoor air quality is normally considered to be 50% of the outside level when the HVAC unit is running. This is why a comparison is always required to establish acceptable indoor levels. With the HVAC system running then the indoor air quality should be less than 2,000 or 20,000 counts/m³. For clearance sampling the inside should be less than the outside level with **NO** Stachybotrys.

Air Sample Results Discussion (Specific)

The air sample collected outside (A-3) produced a level of 2,860 counts/m³. The species identified included Alternaria, Myxomycete, Cladosporium, Ascospores, Bipolaris, Curvularia, Ganoderma, Cercospora and Unidentifiable spores. This level is above the level normally accepted as “normal” for outside.

The air sample collected from the HVAC outlet closest to the HVAC unit (A-1) produced a result of 126 counts/m³. The species identified included Alternaria, Bipolaris and Cladosporium. These species were also present in the outside sample only at a much higher level. This level is 4.4% of the outside. The level from the HVAC system on April 23, 2007 was 1,760 counts/m³. This confirms that the HVAC has been remediated.

A second air sample was collected by the HVAC unit return vent (A-2) to verify that the breathing environment inside the residence remains acceptable. This sample produced a level of 1,720 counts/m³. The species identified were Bipolaris, Cladosporium, Epicoccum and Unidentifiable spores. This level is 60.1% of the outside level. Since the house has been vacant, this level is below the outside level and does not contain Stachybotrys. Therefore the breathing environment inside the residence is considered to remain acceptable for mold.

CONCLUSIONS

Based on the above investigation, the following conclusions are supported:

- The HVAC unit has been properly remediated.
- The breathing environment inside the residence is considered acceptable with **NO** Stachybotrys present.

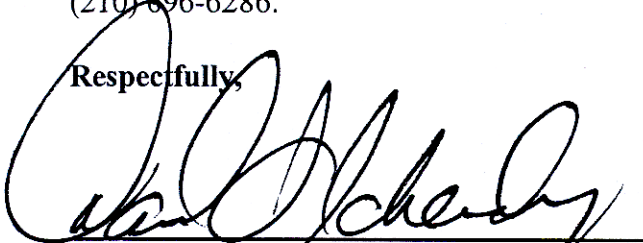
RECOMMENDATIONS

Based on the above results, the following recommendations are provided.

- No further remedial actions are recommended or considered warranted at the current time.

If you have any questions concerning the above, please do not hesitate to contact our office at (210) 696-6286.

Respectfully,



David O. Scheiding, P.E.
President - Principal Engineer
Texas Mold Assessment Consultant
MAC0174

**Attachments: Laboratory Report
Photos**



EMSL Analytical, Inc.

2501 Central Parkway, Suite C-17 Houston, TX 77092

Phone: (713) 686-3635

Fax: (713) 686-3645

Email: houstonlab@emsl.com

Attn: Dave Scheiding
STC Environmental Services, Inc.
4754 Research Drive
San Antonio, TX 78240

EMSL Order: 150703645
Customer ID: STCE50
Received: 7/2/07
Analyzed: 7/3/07
Report Date: 7/12/07

Proj: 27230 / 142 Villa Grande

Air-O-Cell™ Cassette Analysis of Fungal Spores & Other Airborne Particulates by Optical Microscopy (EMSL Method M001)

Lab Sample Number:	150703645-0001	150703645-0002	150703645-0003		
Client Sample ID:	A-1	A-2	A-3		
Volume:	75	75	75		
Sample Location:	HVAC Outlet	HVAC Return	Outside		
Spore Types	Count/m ³	Count/m ³	Count/m ³		
Agrocybe/Coprinus	-	-	-		
Alternaria	42	-	378		
Ascospores	-	-	504		
Aspergillus/Penicillium	-	-	-		
Basidiospores	-	-	-		
Bipolaris	42	210	84		
Chaetomium	-	-	-		
Cladosporium	42	1430	672		
Curvularia	-	-	42		
Epicoccum	-	42	-		
Fusarium	-	-	-		
Ganoderma	-	-	42		
Myxomycete	-	-	84		
Paecilomyces	-	-	-		
Rust	-	-	-		
Scopulariopsis	-	-	-		
Stachybotrys	-	-	-		
Torula	-	-	-		
Ulocladium	-	-	-		
Unidentifiable Spores	-	42	126		
Zygomycetes	-	-	-		
Cercospora	-	-	924		
Total Fungi	126	1720	2860		
Fibrous Particulate	-	42	-		
Hyphal Fragment	-	42	42		
Insect Fragment	-	-	42		
Pollen	-	-	42		
Analytical Sensitivity	42	42	42		
Skin Fragments (1-4)	1	1	1		
Background (1-5)	2	2	2		

No discernable field blank was submitted with this group of samples.

AIHA EMLAP Accreditation #102575

Samples received in good condition unless otherwise noted.

High Levels of background particulate can obscure spores and other particulates leading to underestimation.

Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification.

The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment.

Present= Spores found during additional scan at lower mag. This report relates only to the samples reported and may not be reproduced,

except in full, without written approval by EMSL. Results have not been adjusted for field or laboratory blank unless otherwise noted.

Mary Sacilowski, Laboratory Manager
or Other Approved Signatory

158703645



MICROBIOLOGY - CHAIN OF CUSTODY

Date Collected: 6/29/07 Date Sent: 6/29/07

Contact: SCHEDVING Bill To: STC ENVIRONMENTAL
 Company:

STC ENVIRONMENTAL SERVICES
4754 RESEARCH DRIVE
SAN ANTONIO, TEXAS 78240

Phone: (210) 696-6286 Fax: (210) 696-8761

Project Name: 27230 142 VILLA GRAMA

Air Samples	Wipe & Bulk Samples
<input checked="" type="checkbox"/> Mold & Fungi by Air-O-Cell Cassette (Select turn around time)	<input type="checkbox"/> Mold & Fungi - Direct Examination (Select turn-around time) Submit cellophane tape sample or bulk
<input type="checkbox"/> Mold & Fungi by Agar Plate (Count & identification)	<input type="checkbox"/> Mold & Fungi - Direct Examination - Follow up examination by culture if necessary
<input type="checkbox"/> Mold & Fungi by Agar Plate (Count Only)	<input type="checkbox"/> Mold & Fungi - Culture (ID & Count)
<input type="checkbox"/> Bacterial Count & Gram Stain	<input type="checkbox"/> Mold & Fungi - Culture (Count Only)
<input type="checkbox"/> Bacterial Count & Identification (Three most prominent types)	<input type="checkbox"/> Bacterial Count & Gram Stain
<input type="checkbox"/> Bacterial Count & Identification (Three most prominent types)	<input type="checkbox"/> Bacterial Count & Identification (Three most prominent types)

STC PR 470-07
 Stan D. Schuyler

TURN AROUND TIME:
 Same Day 1 Day 2 Day 3 Day 4 Day 5 Day 6-10 Day

SAMPLE ID	LOCATION	VOLUME	COMMENTS
A-1	HUM OUTLET	75 L	MOLD/FUNGI
A-2	HUM RETURN	75 L	↓ ↓
A-3	OUTSIDE	75 L	↓ ↓

Rec'd: Blatt 7/2/07 - 8:45AM



PHOTO 1: View of a clean HVAC return air vent.



PHOTO 2: View of a clean HVAC outlet.



PHOTO 3: Additional view of a clean HVAC outlet.



PHOTO 4: Additional view of a clean HVAC outlet.