

The following samples were collected from Martin Hall rooms:

- 114A
- 135
- 151G
- 228
- 237
- 249

LABORATORY REPORT

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SUBJECT: Particle Identification
SPECIMEN: Two Sets of Three Tapelifts
REFERENCE: Mar/Wil

INTRODUCTION

Two sets of three tapelifts were received for analysis. The tapelifts were labeled as follows.

TAPELIFTS
Mar 151G
Mar 114A
Mar 135
Mar 228
Mar 249
Mar 237

The tapelifts were placed on clean microscope slides and immersed in acetone for about two hours and then removed. The slides with the tapelifts were rinsed with clean acetone as they were removed from the immersion tank. The tapelifts were allowed to dry for twenty minutes in a laminar flow Clean Work Station and then mounted using a synthetic resin (Shurmount). The completed mounts were analyzed using analytical light microscopy. The materials identified are listed in decreasing order of frequency, the most common materials first. The significance of a material's location in the list is not necessarily related to its health impact because some materials have a greater health impact at low levels than other materials do at high levels.

RESULTS

The tapelifts from Mar 151G, Mar 114A, and Mar 135 contained skin flakes, paper fiber, clothing fiber, natural minerals, silica phytoliths, starch, pollen, spores, bird feather barbules, tire wear, insect debris, charred wood, and glass fiber. Mar 151G contained 2 glass fibers, Mar 114A contained 6 glass fibers, and 135 contained 4 glass fibers. All these fibers were from an acoustic ceiling tile. These glass fibers are not typical fibers found in a HVAC system. The total particle loading on all three of these samples were low. The glass fiber count is below the typical level associated with health complaints it is high relative to the particle loading.

The tapelifts Mar 228, Mar 249, and Mar 237 contained paper fiber, clothing fiber, skin flakes, phytoliths, pollen, spores, starch, charred wood, charred plant, feather barbules, pencil debris, phytoliths, shoe wear, ink, insect debris, and glass fiber. Mar 228 and Mar 237 had very low particle loading. These samples contained a variety of pollens and an elevated amount of silica phytoliths. This indicates a high volume of particles from the outside is settling in this environment. Mar 249 had a moderate amount of particle loading and did contain 6 glass fibers. The glass fibers are consistent with fibers found in an acoustic ceiling tile. This is below the number of fibers associated with health complaints. The silica phytoliths were high and heat modified. This could be a result of agricultural burning.

CONCLUSION

All the samples had a high concentration of outdoor particulate. Samples Mar 249, 114A, 141G, and 135 contained glass fibers typical of acoustic ceiling tile. The glass fiber was below the number of glass fibers associated with health complaints.

Thank you for this opportunity to be of service. If I can provide any further assistance please contact me.

Signed: Heidie Crutcher
Heidie Crutcher, Analyst

Signed: ERC
E. R. Crutcher, Consultant