The following samples were collected from JFK Library rooms:

- Main Level
- Upper Level

Date April 3rd

Report #: 118-19 Date: April 30, 2019

LABORATORY REPORT

To: Mountain Consulting Services Ron Knutson 9922 E Montgomery Drive, Suite 9 Spokane Valley WA 99206

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SUBJECT: Particle Identification

SPECIMEN: Five Set of Three Tapelifts

REFERENCE: JFK

INTRODUCTION

Five sets of three tapelifts each was received for analysis.

| Sample | Description | Analysis/Date |
|--------|---|---------------|
| ID | - | Collected |
| Ref 1 | Top of Till Mont Dusty | PI 4/3/19 |
| Ref 2 | Desk Center by Cord Drop | |
| Ref 3 | Top of Lower Mont | |
| Cir-1 | Top of Circulation Survey Box Dusty | PI 4/3/19 |
| Cir-2 | Top of Mont 2 nd From R looking @ Center | |
| Cir-3 | Back of Mont by Radius | |
| U02 | On Docking Por | PI 4/3/19 |
| U02b | On Top of R Mont | |
| U02c | Face of Phone | |
| U04 | Top of Samsung Proj | PI 4/3/19 |
| U06 | Top of Phone | |
| U08 | Top of Upper Cab by | |
| M04B | Top of File Cab | PI 4/3/19 |
| M04D | On Top of Wood File Cab by Door | |
| M04E | Top of Till Brown Table | |

Mont = Montror Proj = Projector Cos = Casiner

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.

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RESULTS

| Sample ID | Description | Glass Fiber | Summary of Particles |
|--------------|---|----------------|--|
| Ref I | Top of Till Mont Dusty | 21 | Skin Flakes, Clothing Fibers, Natural Minerals, Shoe Wear, Starch, Ink, Plant Debris |
| Ref 2 | Desk Center by Cord Drop | 2 | Skin Flakes, Clothing Fibers, Paper Fibers, Natural Minerals, Bird Feather Barbules, Ink, Starch, Fungal Spores |
| Ref 3 | Top of Lower Mont | 0 | Metal Flakes, Skin Flakes, Clothing Fibers, Natural Minerals |
| Cir-1 | Top of Circulation Survey Box Dusty | 13 | Skin Flakes, Paper Fibers, Clothing Fibers, Natural Minerals, Plant Debris, Bird Feather Barbules, Silica Phytoliths |
| Cir-2 | Top of Mont 2 nd From R looking @ Center | 10 | Skin Flakes, Clothing Fibers, Natural Minerals, High Hydrocarbon Soot, Bird Feather Barbules, |
| Cir-3 | Back of Mont by Radius | 5 | Skin Flakes, Clothing Fibers, Natural Minerals, Pollen, Paper, Starch, Paint, Fungal Spores |
| U02 | On Docking Por | 1 | Skin Flakes, Paper, Clothing Fibers, Natural Minerals, Fungal Spores |
| U02b | On Top of R Mont | 0 | Skin Flakes, Clothing Fibers, Natural Minerals (Low Particle Loading) |
| U02c | Face of Phone | 7 | Skin Flakes, Clothing Debris, Natural Minerals, Bird Feather Barbules, Fungal Spores, Starch |
| U04 | Top of Samsung Proj | 23 | Skin Flakes, Clothing Debris, Starch, Natural Minerals, Plant Debris, Bird Feather Barbuels, 21 short glass fibers / 2 long glass fibers |
| U06 | Top of Phone | 4 | Skin Flakes, Clothing Debris, Natural Minerals, Starch, Plant Debris, Ink |
| U08 | Top of Upper Cab by | 0 | Clothing Debris, Skin Flakes, Natural Minerals, Plant Debris |
| M04B | Top of File Cab | 8 | Clothing Fibers, Paper, Skin Flakes, Paint, Starch |
| M04D | On Top of Wood File Cab by Door | .0 | Skin Flakes, Paper, Natural Minerals, Starch, Carpet Beatle Hair |
| M04E | Top of Till Brown Table | 0 | Skin Flakes, Clothing Fibers, Natural Minerals (Low Particle Loading) |

The particles typically seen on these tapelifts included skin flakes, paper fiber, clothing fiber, natural minerals, plant parts, tire wear, starch, shoe wear, pollen, charred plant material, fungal spores, insect debris, feather barbules, wear metals, paint flakes, paint, and glass fiber.

Ten out of the fifteen samples contained a total 92 short glass fibers (less then 50microns in length) and 2 long glass fibers. Samples Ref 2, Ref 3, U02, U02b, U08, M04D, and M04E met the 2 glass fibers per sq. inch clearance requirement. 13 short glass fibers and 4 long glass fibers per square inch is associated with health complaint. All the samples contained normal to low particle loading.

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CONCLUSION

The material of greatest concern on these tapelifts was glass fiber. 92 short glass fibers and 2 long glass fibers were present in ten out of the fifteen samples. 13 short glass fibers and 4 long glass fibers per square inch is associated with health complaint. All the samples contained normal to low particle loading.

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

Signed: <u>Heidis Crutcher</u> Heidie Crutcher, Analyst

Signed: E. R. Crutcher, Consultant

CHAIN OF CUSTODY RECORD

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Phone: 509 924 9236 FAX: 509 924 2267 E-Mail: When to on Omountpon Consulting Job Reference: Address: 9822

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7609 140th PL NE, Redmond, WA 98052 Phone: (425) 885-9419

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