STRATA
A Professional Services Corporation
Integrity from the Ground Up

October 9, 2012
File: EOUORI ON12030A

Ms. Carol Franks
Project Coordinator
Facilities & Planning
Eastern Oregon University
One University Blvd
La Grande, Oregon 97850
541-962-3020
cfranks@eou.edu

RE: Limited Hazardous Materials Building Survey
Quinn Coliseum
Eastern Oregon University
La Grande, Oregon

Dear Ms. Franks:

STRATA, A Professional Services Corporation (STRATA), is presenting the results of our authorized limited hazardous materials building survey (including asbestos, lead based paint [LBP], and polychlorinated biphenyls [PCB]) supporting Eastern Oregon University's (EOU) Quinn Coliseum limited renovation project located in La Grande, Oregon. This project has been completed referencing our proposal ONP12030A, dated May 18, 2012.

PROJECT BACKGROUND

Our asbestos survey was conducted referencing Environmental Protection Agency (EPA) Regulations 40 CFR 61 Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP), EPA Asbestos Hazard Emergency Response Act (AHERA) 40 Code of Federal Regulations (CFR) 763.86 sampling protocols by an accredited asbestos inspector, Oregon Department of Environmental Quality (DEQ) Asbestos Requirements (OAR 340-248) and by your specific instructions to only sample those building materials that would be disturbed by planned renovation activities.

Lead paint sampling, PCB sampling, and the PCB containing light ballasts and mercury thermostat switches inventory is intended to evaluate whether renovation demolition wastes are considered hazardous wastes under the Resource Conservation Recovery Act (RCRA) 40 CFR 261.24 (lead and mercury), the Toxic Substances Control Act (TSCA) 40 CFR 761.62 (PCBs), and Oregon Occupational Health and Safety Division (Oregon OSHA) OAR 437-002-0360, Toxic and Hazardous Substances (lead). We understand EOU is responsible for evaluating demolition worker protection requirements under the Occupational Safety and Health Act (OSHA).

Planned renovation activities for Quinn Coliseum have not been finalized. However, we conducted our sampling activities after reviewing the most recent renovation plans provided by

SERA Architects and after a discussion with Fortis (General Contractor) on September 5, 2012. Based on our site visit on September 5th and 6th, 2012, and your written authorization to proceed, STRATA personnel conducted the following project activities.

ASBESTOS CONTAINING MATERIALS (ACM) VISUAL INSPECTION

Our field activities began by visually observing building materials on September 5, 2012. We conducted our visual inspection to help identify homogeneous areas, defined as an area in which the suspect ACM appears to be uniform in texture, color, wear and is believed to have been applied during the same general time period. The original footprint of the building was constructed in 1957. Subsequent additions to the building were constructed in 1968 and 2001. Quinn Coliseum's construction history was used to segregate homogenous areas during the survey. Materials other than wood, glass, and metal were considered suspect.

ACM CONDITION AND FRIABILITY

Each identified homogeneous area was physically assessed to determine its condition (good, damaged, or significantly damaged) and to assess whether the suspect material should be classified friable or non-friable. Friable ACM can be crumbled or reduced to a powder by hand pressure, has been pulverized, or otherwise deteriorated so that the asbestos is no longer likely to be bound within its matrix. The observed ACMs were not assessed as friable.

SAMPLE COLLECTION

Asbestos

Based upon the visual inspection, suspect asbestos containing building material (ACBM) sampling strategies were established referencing EPA Regulations AHERA 40 CFR Part 763 Subpart E. Random Sampling, modified by physical access was performed on each identified suspect ACM. STRATA personnel utilized appropriate personal protective equipment while sampling. Additionally, sampling procedures included using engineering controls to reduce airborne fibers released during sample collection. One-hundred thirty nine material bulk samples were collected from 46 identified suspect homogeneous areas in Quinn Coliseum that we understand may be impacted by the proposed renovation project activities.

Lead-Based Paint

A total of ten paint chip samples were collected from the surface of interior walls, interior metal doors and door jambs, and concrete floors that may be impacted by renovation project activities. An approximate 1" x 1" paint sample was collected from the painted surfaces of these building materials. The paint chip samples were placed in individual sample containers and labeled with a unique sample identification number.

PCB

The PCB caulk bulk sample was collected from window caulk associated with the transite panels on the north side of the building. The required 5 grams of caulk was collected and placed in the sample container and chilled to 4 degrees Celsius or below, referencing EPA Method 8082.

Sample locations are illustrated on Figure 1, Sample Location Map, First Floor, Quinn Coliseum and Figure 2, Sample Location Map, Second Floor, Roof & Exterior, Quinn Coliseum. Figures are included in Appendix A, Figures and Photographs. The following summarizes the identified building materials:

Suspect Asbestos Containing Materials

- Vinyl floor tile and mastic, 12”x12”, beige with brown streaks (M-VFT-001)
- Covebase and mastic, 4”, brown (M-CBM-002)
- Covebase and mastic, 4”, blue (M-CBM-003)
- Covebase and mastic, 4”, dark beige (M-CBM -004)
- Carpet and mastic, blue (M-CPT-005)
- Carpet and mastic, brown (M-CPT-006)
- Gypsum wall system, smooth texture (M-WS-007)
- Concrete wall system with sandy texture (M-CONC-008)
- Acoustical ceiling panels, 3’x8’, white, spaghetti texture (M-ACP-009)
- Acoustical ceiling panels, 2’x4’, white, pinhole and worm pattern (M-ACP-010)
- Acoustical ceiling tiles, 1’x1’, white, deep fissure and pinhole pattern (M-ACT-011)
- Carpet and mastic, gray (M-CPT-012)
- Gypsum wall system, sandy texture (M-WS-013)
- Carpet and mastic, blue gray (M-CPT-014)
- Covebase and mastic, 4”, black (M-CBM-015)
- Parquet flooring and mastic (M-PAR-016)
- Ceramic floor tile with grout, 2”x2”, blue (M-CFT-017)
- Ceramic wall tile with grout, 4”x4”, white and 2”x2”, blue (M-CWT-018)
- Gypsum wall system, orange peel texture, white (M-WS-019)
- Gypsum ceiling system, heavy knockdown texture (M-CS-020)
- Acoustical ceiling tiles, 1’x1’, even-spaced grid pattern (M-ACT-021)
- Acoustical ceiling tiles, 1’x1’, computer grid pattern (M-ACP-023)
- Vinyl floor tile and mastic, 12”x12”, white and blue with blue flecks (M-VFT-024)
- Acoustical ceiling panels, 2’x4’, smooth (M-ACP-025)
- Linoleum flooring, beige/gray, pebble texture (M-LIN-026)
- Covebase and mastic, 4”, brownish pink (M-CBM-027)
- Covebase and mastic, 4”, light gray (M-CBM-028)
- Vinyl floor tile and mastic, 9”x9”, green (M-VFT-030)
- Vinyl floor tile and mastic, 9”x9”, beige (M-VFT-031)
- Gypsum wall system, light sandy texture (M-WS-032)
- Acoustical ceiling tile, 1’x1’, smooth, with brown mastic (M-ACT-033)
- Ceramic floor tile, 6”x6”, beige tile with dark brown grout (M-CFT-034)
- Ceramic wall tile, 1”x1”, multiple shades of beige (M-CWT-035)
- Transite panels (M-TRANS-036)
- Caulk, gray, thin – associated with M-TRANS-036 (M-CAULK-037)
- Ceramic floor tile, 1”x1”, multi-colored tile (M-CFT-038)
- Mopped tar roof with gravel (M-ROOF-039)
- Gypsum wall system, smooth texture (M-WS-041)

- Ceramic wall tile, 4”x8”, light green subway tile with white grout (M-CWT-042)
- Ceramic floor tile, 1”x1”, octagonal, light brown with dark brown grout (M-CFT-043)
- Ceramic floor tile, 2”x2”, dark brown with dark brown grout (M-CFT-044)
- Window glazing, gray (M-WG-045)
- Ceramic floor tile, 2”x2” beige tiles, 1”x2” green tiles, with dark brown grout (M-CFT-046)
- Ceramic wall tile, 4”x4”, white and green tiles (M-CWT-047)
- Covebase and mastic, 4”, green (M-CBM-048)
- Ceramic tile covebase, 4”x4” and 1”x1” ceramic tiles along shower gutters, beige (M-CERCBM-049)

Please note that numbers 022 and 029 and 040 were not used during survey activities. Additional information pertaining to these suspect asbestos containing materials is included in Table 1 - Homogeneous Material Summary Table.

Suspect Lead-Based Paint Materials

- White paint located on the interior walls of the building (LBP-1)
- White door paint located on the doors to Rooms 101E and 129 on the first floor of the building (LBP-2)
- Dark blue door paint located on doors throughout the building (LBP-3)
- Dark green paint on concrete floor in the secured Athletic Storage/Supplies area (LBP-4)
- Sage green paint located on the door & door jamb paint located in the first floor supplies/former shower area and the Public Locker Rooms (LBP-5)
- Light blue wall paint located on the interior walls of the former pool area (LBP-6)
- Beige paint located on the interior walls of the building (LBP-7)
- Yellow door paint located on the second floor Balcony Area above the gym (LBP-8)
- Brown door jamb paint located on two door jambs on the second floor Balcony Area above the gym (LBP-9)
- Light green wall paint on concrete walls in the Janitor’s Closets located throughout the building (LBP-10)

Suspect PCB Material

- Window caulk (M-CAULK-037-PCB)

Please note that PCB ballasts and mercury switches were not observed in the Quinn Coliseum areas that will be impacted by renovation project activities.

MATERIAL SAMPLE ANALYSIS

Samples collected during our survey were delivered under chain-of-custody protocol to Fiberquant Analytical Services (Fiberquant), an accredited laboratory participating in the National Voluntary Laboratory Accreditation Program (NVLAP) and analyzed for asbestos content using Polarized Light Microscopy (PLM) The percent asbestos, where applicable, will be determined by visual estimation. Point count and/or Transmission Electron Microscopy (TEM)

analysis was not performed as part of the analytical activities. The lead paint samples were submitted to Fiberquant for lead analysis by Flame Atomic Absorption (FAA). The PCB sample was submitted to Pace Analytical (Pace), a NELAC certified laboratory, for PCB analysis by EPA Method 8082.

PLM is the EPA recommended method for bulk sample analysis utilizing the unique optical and crystallographic properties for asbestos material identification purposes. These properties including: refractive indices, birefringence, sign of elongation, and extinction angle, are characteristically unique to each asbesti-form mineral and were used to identify asbestos types present in the samples.

Laboratory analytical results and copies of the chain-of-custody forms are included in Appendix B, Analytical Results and Chain-of-Custody Documentation. Laboratory and STRATA personnel certifications are included in Appendix C, Laboratory and Personnel Certificates.

REGULATORY DISCUSSION

Asbestos

Under current EPA, OSHA, and DEQ regulations, material containing greater than one percent asbestos (asbesti-form mineral) by weight is considered an ACM. Materials that have historically contained greater than one percent asbestos in their composition may either be classified as an assumed ACM, or be sampled by an AHERA accredited inspector and analyzed to determine the percentage by weight of asbestos contained in their composition and subsequently be classified as an ACM or non-ACM.

EPA NESHAPs regulations require identification, classification and strict consideration of existing building materials prior to beginning any renovation or demolition activity. NESHAPs regulations are concerned with regulated ACM (RACM) including: all friable ACM; Category I non-friable ACM that will be or has been subject to sanding, grinding, cutting, or abrading; Category II non-friable ACM that has become friable; and Category II non-friable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to a powder by forces expected to act on the material in the course of demolition or renovation activities. Category I non-friable ACMs include asbestos-containing packing, gaskets, resilient floor covering, asphalt roofing products, and pliable asbestos-containing sealants and mastics. Category II non-friable ACMs include any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure (e.g. asbestos cement products).

OSHA 29 CFR 1926.1101 Definitions

Class I asbestos work means activities involving the removal of TSI and surfacing ACM and PACM.

Class II asbestos work means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III asbestos work means repair and maintenance operations where asbestos is likely to be disturbed.

Class IV asbestos work means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.

Lead-Based Paint

The U.S. Department of Housing and Urban Development (HUD) defined lead-based paint has a concentration of >1.0 milligram per centimeter squared [mg/cm^2] lead or >0.5% lead by weight (5,000 mg/kg). However, the OSHA Standard for Lead in the Construction Industry does not recognize a minimum acceptable concentration of lead. Consequently, all painted surfaces in which any detectable level of lead is present must be considered as having the potential to present an occupational exposure to lead to an employee engaged in OSHA-regulated construction work. The lead PEL has been established at 50 micrograms per cubic meter air (50 $\mu g/m^3$).

Based on the results of the survey and laboratory testing, several response actions are available for the LBP components. Responses are typically focused on eliminating or reducing lead hazards. Responses vary from removing the building component or abating the paint to interim controls that are designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards.

Lead-Containing Paint Removal - If the building owner abates paint that contains lead prior to demolition, the removal should be completed by trained and qualified contractors. The contractor is responsible for exposure level monitoring, proper work area containment, and compliance with applicable OSHA regulations (OSHA Lead Standard, Code of Federal Regulations, 29 CFR Part 1926, Section 1926.62) and Oregon OSHA regulations (1926.62). Removal may create a hazardous waste and care should be exercised by the building owner/operator to select a qualified contractor to handle, test, and dispose the lead properly in accordance with federal, state, and local laws.

Lead-Containing Paint Disturbance - If painted surfaces that contain lead are disturbed through manual demolition, scraping, cutting, or torch burning, certain work practices must be implemented as defined by OSHA. Hot work, such as welding or torch cutting significantly increases the potential for exposure above the PEL. The OSHA Lead Standard and Oregon OSHA regulations include employee protection requirements for construction workers exposed to lead.

Construction tasks that disturb painted surfaces that contain any amount of lead trigger special protective measures for workers including respiratory protection; protective work clothing and equipment; change areas; hand washing facilities; training; posted signs; exposure monitoring; and initial medical surveillance from the start of work. These measures are required until and unless exposure assessment indicates that exposure levels warrant less protection. Alternatively, an exposure assessment may show that more protection is required.

Lead-Containing Paint Left In-Place - If lead-containing components were to remain in the facility, these components should be maintained in good repair.

PCB

In recent years, EPA has learned that caulk containing potentially harmful PCBs was used in many buildings, in the 1950s through the 1970s. In general, schools and buildings built after 1978 do not contain PCBs in caulk. On September 25, 2009, EPA announced new guidance for school administrators and building managers with important information about managing PCBs in caulk and tools to help minimize possible exposure.

Where schools or other buildings were constructed or renovated between 1950 and 1978, EPA recommends that PCB-containing caulk be removed during planned renovations and repairs (when replacing windows, doors, roofs, ventilation, etc.) It is critically important to assure that PCBs are not released to air during replacement or repair of caulk in affected buildings. Assessment of the building-specific ventilation system for potential contamination, proper cleaning when required, and isolation of the system to prevent further contamination are also important.

PCB-containing caulk is considered *PCB bulk product waste* if the concentration of PCBs in the caulk is greater than or equal to 50 parts per million (ppm). If PCBs have contaminated either the surrounding building materials or adjacent soil, these materials are considered *PCB remediation waste*. Disposal options for *PCB bulk product waste* include disposal in solid waste landfills or a risk-based option. Please note that a risk-based option (based on a site specific evaluation) requires you to obtain an approval from EPA based on a finding that the disposal will not present an unreasonable risk of injury to health or the environment. Disposal options for *PCB remediation waste* include self-implementing cleanup and disposal; performance-based disposal; and risk-based cleanup and disposal.

SUMMARY OF ANALYTICAL RESULTS

Asbestos Analytical Results

Homogeneous material M-VFT-001 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in the black mastic). This material is a 12”x12”, beige vinyl floor tile with brown streaks and is located in Rooms 126 – the Athletics Office. The mastic is considered a NESHAP Category I material and will require removal using OSHA Class II methods. The quantity of this material is approximately 1,500 square feet.

Homogeneous material M-PAR-016 is a non-friable, undamaged parquet floor (2-5% chrysotile identified in the black mastic/coating layer). This material is located in in Room 104 – the Racket Ball Room. There is a cork base with a black coating (lab identified this as black mastic) underneath the parquet flooring. The mastic is considered a NESHAP Category I material and will require removal using OSHA Class II methods. The quantity of this material is approximately 5,000 square feet.

Homogeneous material M-CWT-018 is a non-friable, undamaged ceramic wall tile (>1-2% chrysotile identified in the remnant black mastic layer). This material is the 4”x4”, white ceramic wall tile and 2”x2”, blue ceramic wall tile located in the Men and Women’s Restrooms on the first floor. The mastic is considered a NESHAP Category I material and will require removal using OSHA Class II methods. The quantity of this material is approximately 1,200 square feet.

Homogeneous material M-VFT-030 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in both the floor tile and the black mastic layers). This material is a 9”x9”, green vinyl floor tile located underneath some of the carpet and linoleum flooring in Rooms 128 – Physical Therapy. The vinyl floor tile and mastic are considered NESHAP Category I materials and will require removal using OSHA Class II methods. Due to the limitations of our survey activities and the location of the vinyl floor tile located beneath the carpet and linoleum, the quantity of this material is unknown.

Homogeneous material M-VFT-031 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in both the floor tile and the black mastic layers). This material is a 9”x9”, beige vinyl floor tile located in Room 128E – Physical Therapy Storage room. The vinyl floor tile and mastic are considered NESHAP Category I materials and will require removal using OSHA Class II methods. The quantity of this material is approximately 200 square feet.

Homogeneous material M-CFT-034 is a non-friable, undamaged ceramic floor tile (5-10% chrysotile identified in a remnant black mastic layer). This material is a 6”x6”, beige ceramic floor tile with associated brown grout located in the North Entrance Vestibule The vinyl floor tile and mastic are considered NESHAP Category I materials and will require removal using OSHA Class II methods. The quantity of this material is approximately 750 square feet.

Homogeneous material M-TRANS-036 is non-friable, undamaged transite panels (assumed to be asbestos-containing) located along the base of the windows on the exterior north side of the building. The transite panels are considered a NESHAP Category II material and will require removal using OSHA Class II methods. The quantity of this material is approximately 2,500 square feet.

The ACM locations are identified on Figure 3, Hazardous Materials Location Map, First Floor, Quinn Coliseum; Figure 4, Hazardous Materials Location Map, First Floor, Quinn Coliseum; and Figure 5, Hazardous Materials Location Map, Second Floor, Roof & Exterior, Quinn Coliseum. Photographs of these ACMs are provided on the photo sheet in Appendix A, Figures and Photographs.

Lead-Based Paint Analytical Results

HUD-defined lead-based paints (>1.0 milligram per centimeter squared [mg/cm^2] lead or >0.5% lead by weight) were identified within the limited survey area and include:

Lead-based paint (0.78% lead) was identified in the paint sample LBP-2 obtained from the white door paint located on the doors to Rooms 101E and 129 on the first floor.

Lead-based paint (1.7% lead) was identified in the paint sample LBP-5 obtained from the sage green door & door jamb paint located in the first floor supplies/former shower area and the Public Locker Rooms.

Lead-based paint (1.0% lead) was identified in the paint sample LBP-8 obtained from yellow door paint located in the Balcony area over the gym.

Lead-based paint (3.6% lead) was identified in the paint sample LBP-9 obtained from brown door jamb paint located in the Balcony area over the gym.

Lead-based paint (0.63% lead) was identified in the paint sample LBP-10 obtained from the light green concrete wall paint located in the Janitor's closets throughout the building.

Lead-containing paints (<1/0 mg/cm2 or <0.5% lead by weight) were identified within the limited survey area and include:

Lead-containing paint (0.065% lead) was identified in the paint sample LBP-1 obtained from the white wall paint located throughout the building.

Lead-containing paint (0.0022% lead) was identified in the paint sample LBP-6 obtained from the light blue wall paint located in the pool area.

Lead-containing paint (0.019% lead) was identified in the paint sample LBP-7 obtained from the beige wall paint located throughout the building.

Lead-based and lead-containing paint locations are identified on Figure 4, Hazardous Materials Location Map, First Floor, Quinn Coliseum and Figure 5, Hazardous Materials Location Map, Second Floor, Roof & Exterior, Quinn Coliseum. Photographs of these materials are provided on the photo sheet in Appendix A, Figures and Photographs.

PCB Analytical Results

The results of the PCB sampling activities indicated the window caulk sample M-CAULK-037-PCB contained 868 ppm PCB, which is above the 50 ppm EPA regulatory limit. This window caulk is associated with the transite panels on the north side of the building.

PCB caulk locations are identified on Figure 5, Hazardous Materials Location Map, Second Floor, Roof & Exterior, Quinn Coliseum. A photograph of this material is provided on the photo sheet in Appendix A, Figures and Photographs.

EVALUATION LIMITATIONS

This letter is limited to the materials and activities described herein and is intended to aid in identifying ACMs, lead-based paint, and PCBs within the project area as specified by EOU. Electrical and energized systems were observed but not evaluated.

Destructive sampling was not part of STRATA's approved Scope. Asbestos materials may exist in areas inaccessible during the inspection, including but not limited to:

- Energized systems.
- Interstitial areas between walls, ceilings, and floors.
- Areas inaccessible without destructive sampling.
- Areas restricted by activity and use limitations.

STRATA endeavored to obtain bulk material samples from locations where visual impacts from the sampling activities would be less noticeable to the general public. Per our approved scope, repairing sampling locations was not required.

Our services consist of professional opinions made in accordance with generally accepted consulting and sampling principles and practices as they exist at the time of this letter, and in eastern Oregon. This acknowledgment is in lieu of all express or implied warranties. We prepared this letter for EOU's exclusive use; we cannot be responsible for any other use of this letter. This letter should be read and implemented in its entirety. Individual letter sections cannot be relied upon outside the context of the letter. The information is relevant to the dates of our site work, and should not be relied on to represent conditions at a substantially later date.

RECOMMENDATIONS AND CONCLUSIONS

Asbestos

A project competent person (AHERA Supervisor/Contractor) and asbestos-worker personnel trained per EPA's Model Accreditation Plan (MAP) will be required for the ACM abatement activities prior to building renovations. Removing these ACMs will be considered Class I & II asbestos abatement work per OSHA 29 CFR 1926.1101 and a containment area with sealed critical barriers, HEPA-filtered air, and wet methods should be utilized when removing these material. Oregon asbestos rules require written notification (10-day lead time) be given to DEQ when removing or encapsulating asbestos-containing material (OAR 340-248-0260). This notification must be submitted on DEQ forms and accompanied by the appropriate notification fee. If planned renovation activities disturb building materials that were not sampled as part of these project activities, the building materials must be assumed to be ACM and will require abatement.

Lead-Based Paint

The OSHA Standard for Lead in the Construction Industry does not recognize a minimum acceptable concentration of lead. Consequently, all painted surfaces in which any detectable level of lead is present must be considered as having the potential to present an occupational lead exposure to an employee engaged in OSHA-regulated construction work. EOU's General Contractor (Fortis) should conduct air sampling activities to monitor airborne lead concentrations and worker exposure to lead when lead-containing paint materials are disturbed during planned renovation activities. Removing the doors intact should not result in airborne lead concentrations exceeding the PEL, providing hot work (e.g. torch cutting/abrasive disk sawing) is not required for removal. Reusing or recycling the doors precludes RCRA disposal requirements.

PCB

The detected concentration of PCB in the window caulk associated with the transite panels on the north side of the building is above the EPA regulatory limit of 50 ppm, and special handling and/or disposal of this material as a PCB-containing waste is required in accordance with local, state and federal regulations (e.g. at a permitted landfill).

The Scope of Services for this project were limited to visual observation of suspect

hazardous building materials (including asbestos, lead-based paint, and PCB), collecting bulk material samples, and reporting analytical test results as part of the inspection. EOU is responsible for identifying all appropriate federal, state, and local regulations, and ensuring that they are in compliance with said regulations.

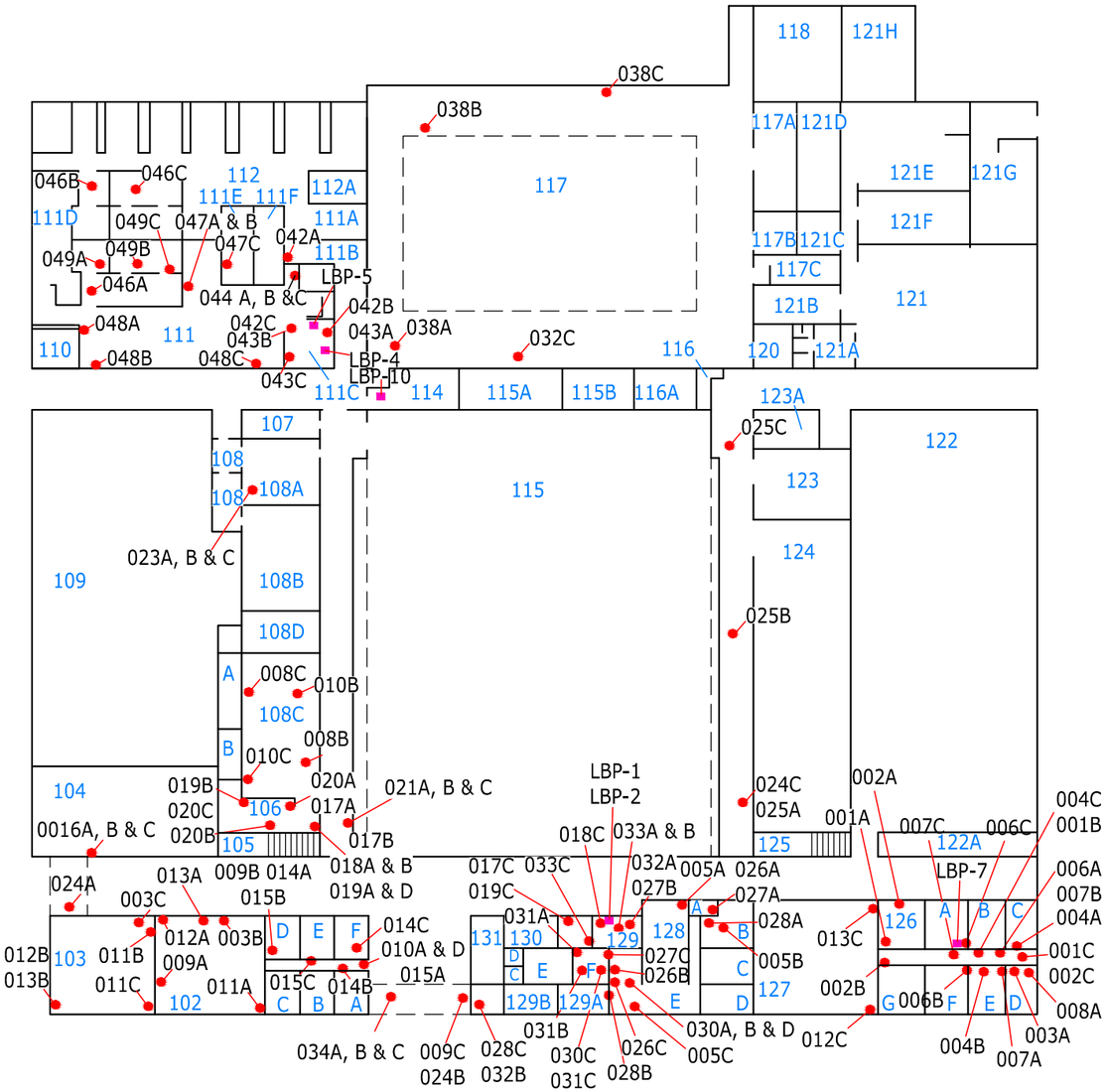
We appreciate the opportunity to assist you on this project. If you have any questions, please contact the undersigned at 208-376-8200.

Sincerely,
STRATA, INC.

Cristina Brischler
AHERA Building Inspector
Environmental Department Manager

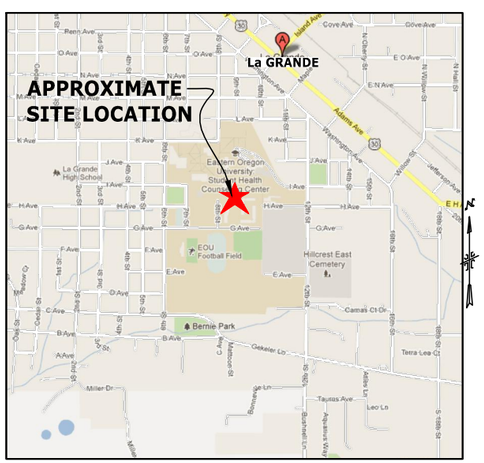
Shawn Ringo
AHERA Building Inspector
Northern Environmental Coordinator

Appendix: A – Figures, Photographs, and Tables
B – Analytical Results and Chain-of-Custody Documentation
C – Laboratory and Personnel Certificates



VICINITY MAP

NOT TO SCALE



LEGEND

001A — Bulk Sample Location (Submitted for Asbestos Analysis)

001-LBP — Paint Sample Location (Submitted for Lead Analysis)

SAMPLE LOCATION MAP
First Floor, Quinn Coliseum
Eastern Oregon University
La Grande, Oregon

DRAWING DATE: 10-1-2012

DRAWING BY: DMS | CHECKED BY: CB

Not To Scale

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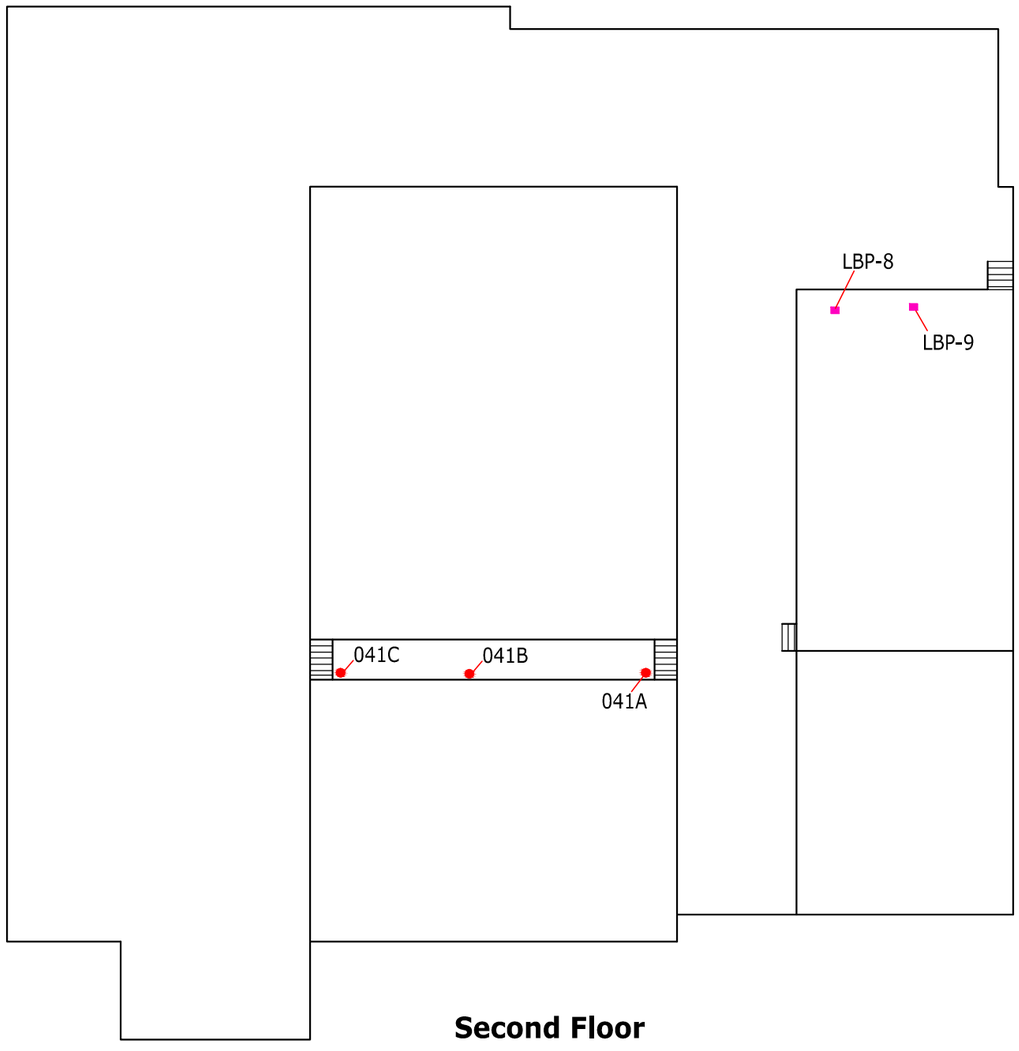
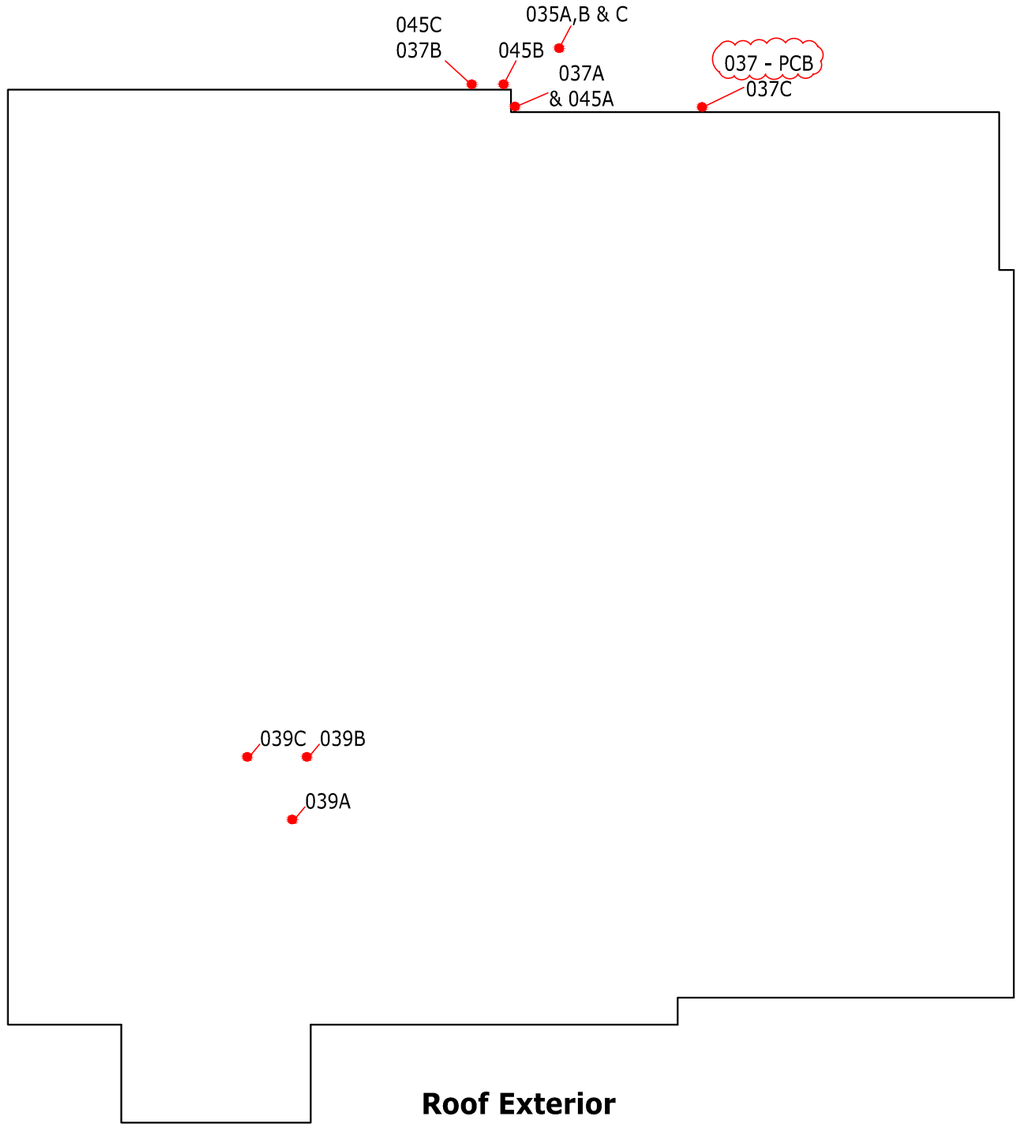
EOUORI ON12030A | FIGURE: 1



Second Floor



Roof Exterior

001A **LEGEND**

Bulk Sample Location
(Submitted for Asbestos Analysis)

001-LBP
Paint Sample Location
(Submitted for Lead Analysis)

037 - PCB
PCB

N

DRAWING DATE: 10-1-2012

DRAWING BY: DMS | CHECKED BY: CB

SAMPLE LOCATION MAP
Second Floor, Roof & Exterior
Quinn Coliseum Eastern Oregon University
La Grande, Oregon

Not To Scale

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EQUORI ON12030A | FIGURE: 2

Figure 3 - First Floor

Homogeneous material M-VFT-001 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in the black mastic). This material is a 12”x12”, beige vinyl floor tile with brown streaks and is located in Rooms 126 - the Athletics Office.

Homogeneous material M-PAR-016 is a non-friable, undamaged parquet floor (2-5% chrysotile identified in the black mastic/coating layer). This material is the parquet flooring in Room 104 - the Racket Ball Room. There is a cork base with a black coating (lab identified this as black mastic) underneath the parquet flooring.

Homogeneous material M-CWT-018 is a non-friable, undamaged ceramic wall tile (>1-2% chrysotile identified in the remnant black mastic layer). This material is the 4”x4”, white ceramic wall tile and 2”x2”, blue ceramic wall tile located in the Men and Women's Restrooms on the first floor of the building.

Homogeneous material M-VFT-030 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in both the floor tile and the black mastic layers). This material is a 9”x9”, green vinyl floor tile located underneath some of the carpet and linoleum flooring in Rooms 128 - Physical Therapy.

Homogeneous material M-VFT-031 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in both the floor tile and the black mastic layers). This material is a 9”x9”, beige vinyl floor tile located in Room 128E - Physical Therapy Storage room.

Homogeneous material M-CFT-034 is a non-friable, undamaged ceramic floor tile (5-10% chrysotile identified in a remnant black mastic layer). This material is a 6”x6”, beige ceramic floor tile with associated brown grout located in the North Entrance Vestibule.

Note: It is the responsibility of the abatement contractor to confirm locations and quantities of hazardous materials.

Note: Thermal pipe insulation located throughout the building may contain asbestos. Some thermal pipe insulation are labeled with asbestos labels. Assume the thermal pipe insulation is asbestos - containing, even if it does not have a label.

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DRAWING DATE: 10-1-2012

DRAWING BY: DMS | CHECKED BY: CB

HAZARDOUS MATERIALS LOCATION MAP
First Floor, Quinn Coliseum
Eastern Oregon University
La Grande, Oregon

Not To Scale

STRATA
A PROFESSIONAL SERVICES CORPORATION
Integrity from the Ground Up

EOUORI ON12030A | FIGURE: 3

Figure 4 - First Floor

Lead-containing paint (0.065% lead) was identified in the paint sample LBP-1 obtained from the white wall paint located throughout the building.

Lead-containing paint (0.0022% lead) was identified in the paint sample LBP-6 obtained from the light blue wall paint located in the pool area.

Lead-containing paint (0.019% lead) was identified in the paint sample LBP-7 obtained from the beige wall paint located throughout the building.

Lead-based paint (0.78% lead) was identified in the paint sample LBP-2 obtained from the white door paint located on at least two doors on the first floor.

Lead-based paint (1.7% lead) was identified in the paint sample LBP-5 obtained from the sage green door & door jamb paint located in the first floor supplies/former shower area and the Public Locker Rooms.

Lead-based paint (0.63% lead) was identified in the paint sample LBP-10 obtained from the light green concrete wall paint located in the Janitor's closets throughout the building.

Note: It is the responsibility of the abatement contractor to confirm locations and quantities of hazardous materials.

Note: Thermal pipe insulation located throughout the building may contain asbestos. Some thermal pipe insulation are labeled with asbestos labels. Assume the thermal pipe insulation is asbestos - containing, even if it does not have a label.

HAZARDOUS MATERIALS LOCATION MAP
First Floor, Quinn Coliseum
Eastern Oregon University
La Grande, Oregon

DRAWING DATE: 10-1-2012

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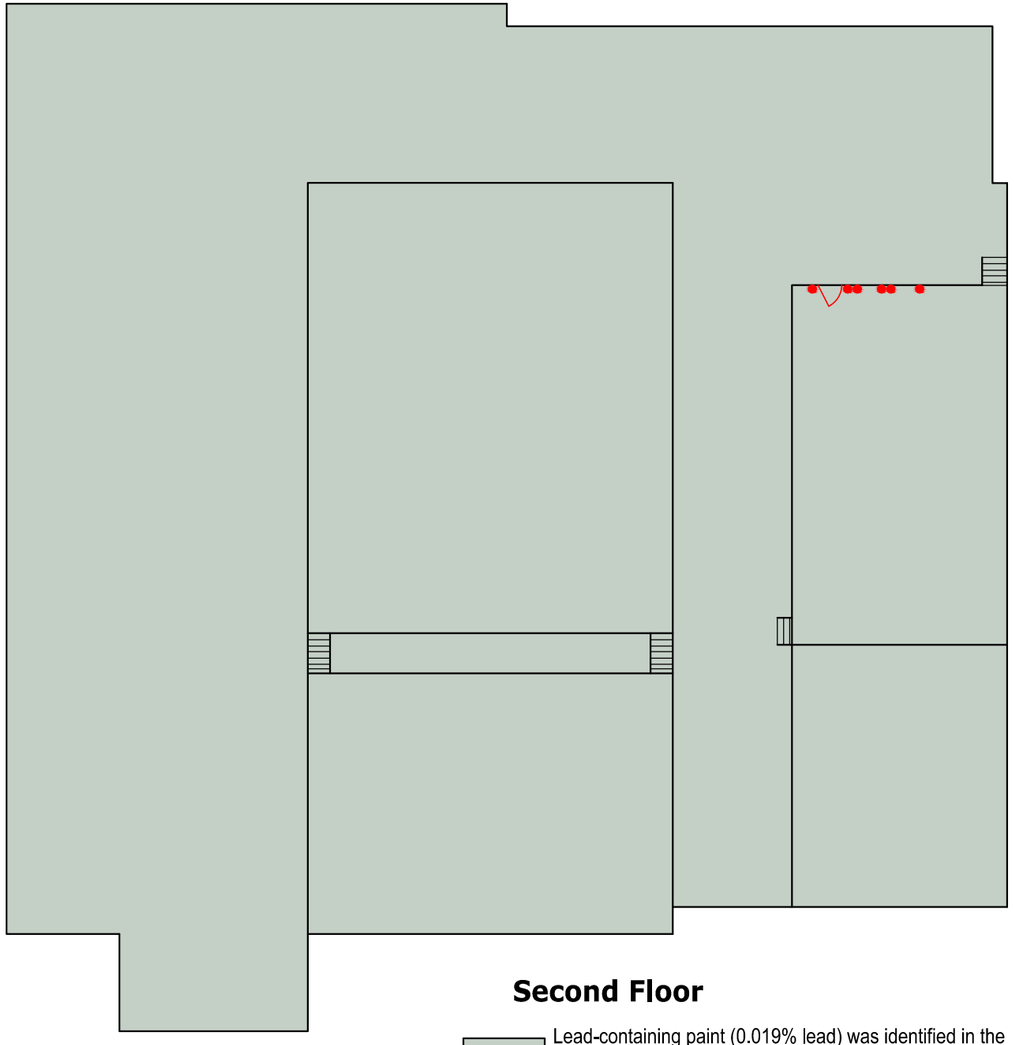
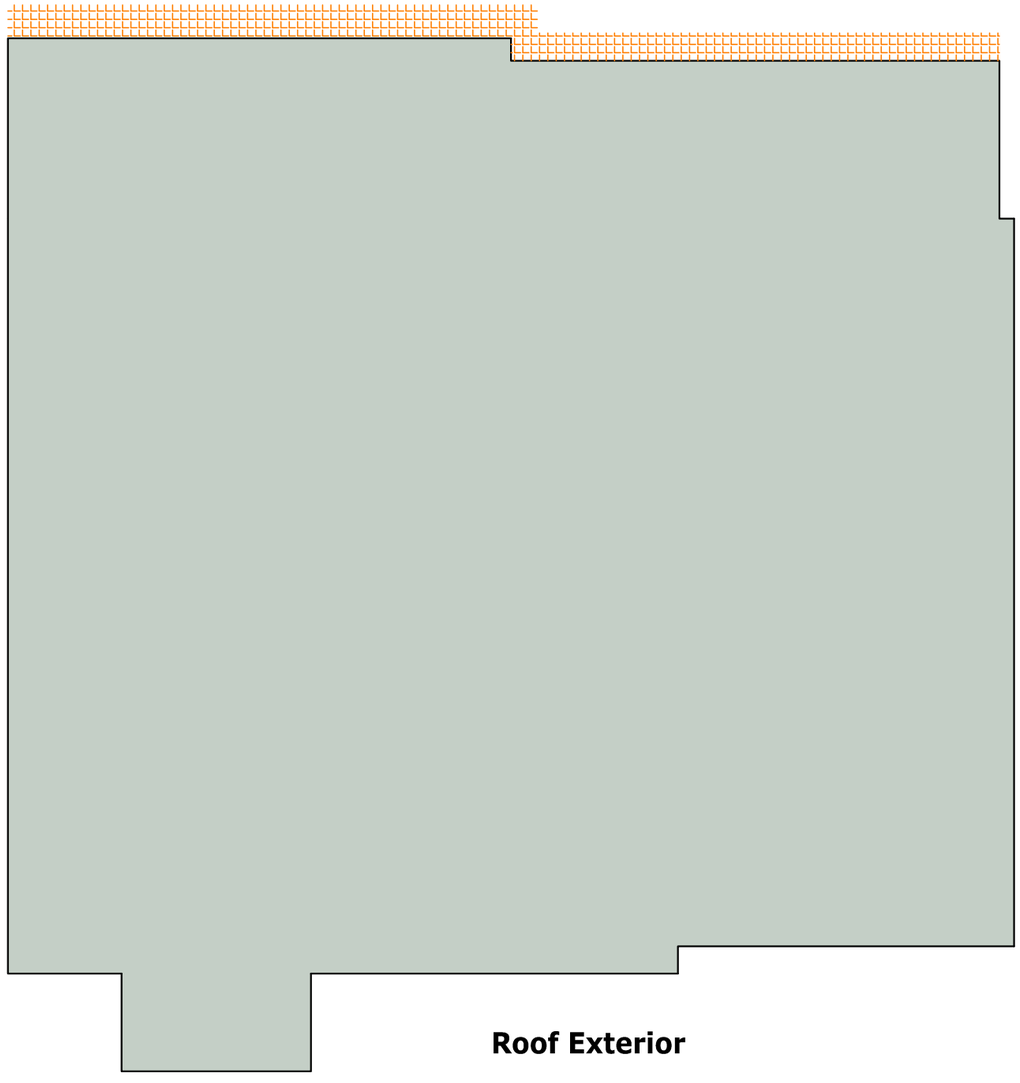
EOUORI ON12030A | FIGURE: 4



Second Floor



Roof Exterior

Figure 5 - Second Floor, Exterior and Roof

Homogeneous material M-TRANS-036 is non-friable, undamaged transite panels (assumed to be asbestos-containing) located along the base of the windows on the exterior north side of the building.

Lead-containing paint (0.065% lead) was identified in the paint sample LBP-1 obtained from the white wall paint located throughout the building.

Lead-containing paint (0.0022% lead) was identified in the paint sample LBP-6 obtained from the light blue wall paint located in the pool area.

Lead-containing paint (0.019% lead) was identified in the paint sample LBP-7 obtained from the beige wall paint located throughout the building.

Lead-based paint (1.0% lead) was identified in the paint sample LBP-8 obtained from yellow door paint located in the Balcony area over the gym.

Lead-based paint (3.6% lead) was identified in the paint sample LBP-9 obtained from brown door jamb paint located in the Balcony area over the gym.

PCB caulk (868 ppm PCB) was identified in the caulk sample M-CAULK-037-PCB. This window caulk is associated with the transite panels on the north side of the building.

Note: It is the responsibility of the abatement contractor to confirm locations and quantities of hazardous materials.

Note: Thermal pipe insulation located throughout the building may contain asbestos. Some thermal pipe insulation are labeled with asbestos labels. Assume the thermal pipe insulation is asbestos - containing, even if it does not have a label.

HAZARDOUS MATERIALS LOCATION MAP
Second Floor, Roof & Exterior
Quinn Coliseum Eastern Oregon University
La Grande, Oregon

DRAWING DATE: 10-1-2012

DRAWING BY: DMS | CHECKED BY: CB

Not To Scale

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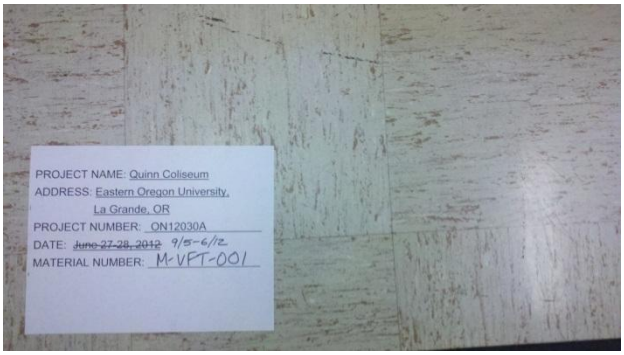
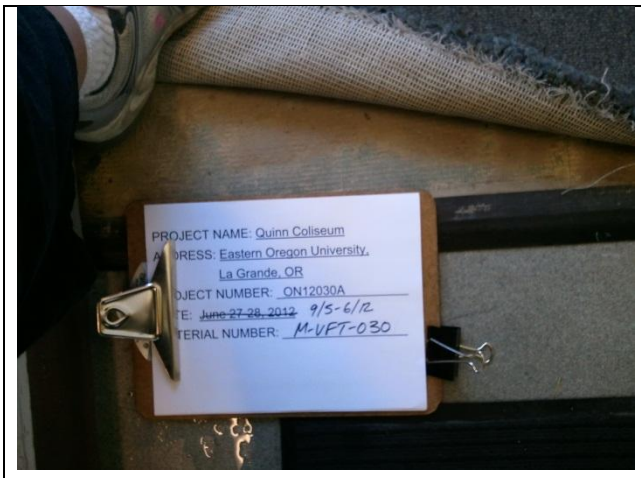
EQUORI ON12030A | FIGURE: 5

Photographs
Limited Hazardous Materials Building Survey
Quinn Coliseum
Eastern Oregon University, La Grande, Oregon
EOUORI ON12030A

	**Photograph 1**: Homogeneous material M-VFT-001 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in the black mastic). This material is a 12”x12”, beige vinyl floor tile with brown streaks and is located in Rooms 126 – the Athletics Office. The mastic is considered a NESHAP Category I material and will require removal using OSHA Class II methods. The quantity of this material is approximately 1,500 square feet.
	**Photograph 2**: Homogeneous material M-PAR-016 is a non-friable, undamaged parquet floor (2-5% chrysotile identified in the black mastic/coating layer). This material is the parquet flooring in Room 104 – the Racket Ball Room. There is a cork base with a black coating (lab identified this as black mastic) underneath the parquet flooring. The mastic is considered a NESHAP Category I material and will require removal using OSHA Class II methods. The quantity of this material is approximately 5,000 square feet.
	**Photograph 3**: Homogeneous material M-CWT-018 is a non-friable, undamaged ceramic wall tile (>1-2% chrysotile identified in the remnant black mastic layer). This material is the 4”x4”, white ceramic wall tile and 2”x2”, blue ceramic wall tile located in the Men and Women’s Restrooms on the first floor of the building. The mastic is considered a NESHAP Category I material and will require removal using OSHA Class II methods. The quantity of this material is approximately 1,200 square feet.

Photographs
Limited Hazardous Materials Building Survey
Quinn Coliseum
Eastern Oregon University, La Grande, Oregon
EOUORI ON12030A

	**Photograph 4**: Homogeneous material M-VFT-030 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in both the floor tile and the black mastic layers). This material is a 9”x9”, green vinyl floor tile located underneath some of the carpet and linoleum flooring in Rooms 128 – Physical Therapy. The vinyl floor tile and mastic are considered NESHAP Category I materials and will require removal using OSHA Class II methods. Due to the limitations of our survey activities and the location of the vinyl floor tile located beneath the carpet and linoleum, the quantity of this material is unknown.
	**Photograph 5**: Homogeneous material M-VFT-031 is a non-friable, undamaged vinyl floor tile with associated mastic (5-10% chrysotile identified in both the floor tile and the black mastic layers). This material is a 9”x9”, beige vinyl floor tile located in Room 128E – Physical Therapy Storage room. The vinyl floor tile and mastic are considered NESHAP Category I materials and will require removal using OSHA Class II methods. The quantity of this material is approximately 200 square feet.
	**Photograph 6**: Homogeneous material M-CFT-034 is a non-friable, undamaged ceramic floor tile (5-10% chrysotile identified in a remnant black mastic layer). This material is a 6”x6”, beige ceramic floor tile with associated brown grout located in the North Entrance Vestibule The vinyl floor tile and mastic are considered NESHAP Category I materials and will require removal using OSHA Class II methods. The quantity of this material is approximately 750 square feet.

Photographs
Limited Hazardous Materials Building Survey
Quinn Coliseum
Eastern Oregon University, La Grande, Oregon
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	**Photograph 7**: Homogeneous material M-TRANS-036 is non-friable, undamaged transite panels (assumed to be asbestos-containing) located along the base of the windows on the exterior north side of the building. The transite panels are considered a NESHAP Category II material and will require removal using OSHA Class II methods. The quantity of this material is approximately 2,500 square feet.
	**Photograph 8**: Lead-based paint (0.78% lead) was identified in the paint sample LBP-2 obtained from the white door paint located on the doors to Rooms 101E and 129 on the first floor.
	**Photograph 9**: Lead-based paint (1.7% lead) was identified in the paint sample LBP-5 obtained from the sage green door & door jamb paint located in the first floor supplies/former shower area and the Public Locker Rooms.

Photographs
Limited Hazardous Materials Building Survey
Quinn Coliseum
Eastern Oregon University, La Grande, Oregon
EOUORI ON12030A

	**Photograph 10**: Lead-based paint (1.0% lead) was identified in the paint sample LBP-8 obtained from yellow door paint located in the Balcony area over the gym.
	**Photograph 11**: Lead-based paint (3.6% lead) was identified in the paint sample LBP-9 obtained from brown door jamb paint located in the Balcony area over the gym.
	**Photograph 12**: Lead-based paint (0.63% lead) was identified in the paint sample LBP-10 obtained from the light green concrete wall paint located in the Janitor's closets throughout the building.
	**Photograph 13**: Lead-containing paint (0.065% lead) was identified in the paint sample LBP-1 obtained from the white wall paint located throughout the building.

Photographs
Limited Hazardous Materials Building Survey
Quinn Coliseum
Eastern Oregon University, La Grande, Oregon
EOUORI ON12030A

	**Photograph 14**: Lead-containing paint (0.0022% lead) was identified in the paint sample LBP-6 obtained from the light blue wall paint located in the pool area.
	**Photograph 15**: Lead-containing paint (0.019% lead) was identified in the paint sample LBP-7 obtained from the beige wall paint located throughout the building.
	**Photograph 16**: The results of the PCB sampling activities indicated the window caulk sample M-CAULK-037-PCB contained 868 ppm PCB, which is above the 50 ppm EPA regulatory limit. This window caulk is associated with the transite panels on the north side of the building.

Table 1 - Homogeneous Material Summary Table
Limited Hazardous Building Materials Survey
Quinn Coliseum
Eastern Oregon University, La Grande, Oregon

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-VFT-001	Vinyl Floor Tile and Mastic, 12″x 12″, beige with brown streaks	Rooms 126 - Athletics Office, Hallway, Copier Room	Good	Non-friable	1,500 SF[5]	M-VFT-001A	Off-white floor tile	NAD[4]
							Black mastic	**5-10% Chrysotile**
						M-VFT-001B	Off-white floor tile	NAD
							Yellow mastic	NAD
							Black mastic	**5-10% Chrysotile**
						M-VFT-001C	Off-white floor tile	NAD
							Yellow mastic	NAD
							Black mastic	**5-10% Chrysotile**
M-CBM-002	Covebase and Mastic, 4″, brown	Rooms 126 - Athletics Office, Hallway, Copier Room	Good	Non-friable	40 SF	M-CBM-002A	Brown covebase	NAD
							Brown mastic	NAD
						M-CBM-002B	Brown covebase	NAD
							Brown mastic	NAD
						M-CBM-002C	Brown covebase	NAD
							Brown mastic	NAD
M-CBM-003	Covebase and Mastic, 4″, blue	Rooms 101F, 102, 103, and 126D	Good	Non-friable	20 SF	M-CBM-003A	Blue covebase	NAD
							Off-white mastic	NAD
						M-CBM-003B	Blue covebase	NAD
							Off-white mastic	NAD
							Brown mastic	NAD
						M-CBM-003C	Blue covebase	NAD
							Off-white mastic	NAD
							Brown mastic	NAD
M-CBM-004	Covebase and Mastic, 4″, dark beige	Rooms 126B, 126C, and 126E	Good	Non-friable	10 SF	M-CBM-004A	Off-white mastic	NAD
							Off-white covebase	NAD
							Brown Mastic	NAD
						M-CBM-004B	Off-white base cove	NAD
							Off-white mastic	NAD
						M-CBM-004C	Off-white base cove	NAD
							Off-white mastic	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	Description	Location[1]	Condition[2]	Friability[3]	Quantity	Sample Number	Layer	Result
M-CPT-005	Carpet, blue	Rooms 101C, 126D, 126F, 126G, 128B, 128C, 128D, and the custodian room 129	Good	Non-friable	1,800 SF	M-CPT-005A	Various carpet	NAD
							Tan mastic	NAD
						M-CPT-005B	Various carpet	NAD
							Tan mastic	NAD
						M-CPT-005C	Various carpet	NAD
							Tan mastic	NAD
M-CPT-006	Carpet, brown	Rooms 126B, 126C, and 126E	Good	Non-friable	600 SF	M-CPT-006A	Various carpet	NAD
						M-CPT-006B	Various carpet	NAD
							Tan mastic	NAD
						M-CPT-006C	Various carpet	NAD
							Tan mastic	NAD
M-WS-007	Wall system, white and blue in room 126D, beige in remainder, smooth texture	Rooms 126A, 126B, 126C, 126D, 126E, 126F, and 126G	Good	Non-friable	7,000 SF	M-WS-007A	Off-white paint	NAD
							White texture/joint compound	<=1% Chrysotile
							Tan paper cardboard	NAD
							Drywall core	NAD
						M-WS-007B	Off-white paint	NAD
							White texture/joint compound	<=1% Chrysotile
							Tan paper cardboard	NAD
							White drywall core	NAD
						M-WS-007C	Off-white paint	NAD
							White texture/joint compound	<=1% Chrysotile
							Tan paper cardboard	NAD
							White drywall core	NAD
M-CONC-008	Concrete Wall System, white or beige, sandy texture	Rooms 108, 126C, and 126D	Good	Non-friable	3,000 SF	M-CONC-008A	Off-white paint	NAD
						M-CONC-008B	Off-white paint	NAD
							Gray concrete	NAD
						M-CONC-008C	Off-white paint	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	Description	Location[1]	Condition[2]	Friability[3]	Quantity	Sample Number	Layer	Result
M-ACP-009	Acoustical Ceiling Panels, white, 3'x 8'	Rooms 101A, 101B, 101C, 101D, 101E, 101F, 102, 103 and adjacent hallway, 126C, 128, and 129	Good	Friable	3,500 SF	M-ACP-009A	Off-white paint	NAD
							Tan acoustical tile	NAD
						M-ACP-009B	Off-white paint	NAD
							Tan acoustical tile	NAD
						M-ACP-009C	Off-white paint	NAD
							Tan acoustical tile	NAD
M-ACP-010	Acoustical Ceiling Panels, 2'x 4', pinhole plus worm patterns	Room 108, Hallway in Room 126, Hallway to Room 101	Good	Non-friable	1,200 SF	M-ACP-010A	Off-white paint	NAD
							Off-white acoustical tile	NAD
						M-ACP-010B	Off-white paint	NAD
							Off-whie acoustical tile	NAD
						M-ACP-010C	Off-white paint	NAD
							Off-white acoustical tile	NAD
						M-ACP-010D	Off-white paint	NAD
							Off-white acoustical tile	NAD
M-ACT-011	Acoustical Ceiling Tile, 1'x 1', deep fissure and pinhole pattern	Rooms 102 and 103 on wall, Room 126 on ceiling	Good	Friable	750 SF	M-ACT-011A	White paint	NAD
							Off-white acoustical tile	NAD
							Brown mastic	NAD
							Off-white paint	NAD
							Off-white plaster	NAD
						M-ACT-011B	White paint	NAD
							Off-white acoustical tile	NAD
							Brown mastic	NAD
							Off-white paint	NAD
						M-ACT-011C	White paint	NAD
							Off-white acoustical tile	NAD
							Brown mastic	NAD
							Off-white paint	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	Description	Location[1]	Condition[2]	Friability[3]	Quantity	Sample Number	Layer	Result
M-CPT-012	Carpet and Mastic, gray	Rooms 102, 103, 108, 123, 127, and 129	Good	Non-friable	1,200 SF	M-CPT-012A	Various carpet	NAD
							Tan mastic	NAD
						M-CPT-012B	Various carpet	NAD
							Tan mastic	NAD
						M-CPT-012C	Various carpet	NAD
							Tan mastic	NAD
M-WS-013	Wall System (associated with M-CONC-008 areas - white), sandy texture	Rooms 102, 103, 108, 124, 126, and 127	Good	Non-friable	6,000 SF	M-WS-013A	Off-white paint	NAD
							White plaster (top coat)	NAD
						M-WS-013B	Off-white paint	NAD
							White plaster (top coat)	NAD
							Off-white plaster (scratch coat)	NAD
						M-WS-013C	Off-white paint	NAD
							Tan paper/ cardboard	NAD
							White plaster (top coat)	NAD
M-CPT-014	Carpet and Mastic, blue-gray	Rooms 101A, 101B, 101D, 101E, 101F, and Hallway	Good	Non-friable	1,000 SF	M-CPT-014A	Various carpet	NAD
							Tan mastic	NAD
						M-CPT-014B	Various carpet	NAD
							Tan mastic	NAD
						M-CPT-014C	Various carpet	NAD
M-CBM-015	Cove Base and Mastic, 4", black	Rooms 101A, 101B, 101C, 101D, 101E, 101F, 108, 124, and hallways throughout	Good	Non-friable	50 SF	M-CBM-015A	Black base cove	NAD
							Off-white mastic	NAD
							Off-white mastic	NAD
						M-CBM-015B	Blue paint	NAD
							Black base cove	NAD
							Off-white mastic	NAD
						M-CBM-015C	Blue paint	NAD
							Black base cove	NAD
							Off-white mastic	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-PAR-016	Parquet Flooring Mastic	Room 104	Good	Non-friable	5,000 SF	M-PAR-016A	Yellow polymer	NAD
							Black mastic	**2-5% Chrysotile**
							Brown cork	NAD
							Tan wood	NAD
						M-PAR-016B	Yellow polymer	NAD
							Black mastic	**2-5% Chrysotile**
							Brown cork	NAD
							Tan wood	NAD
						M-PAR-016C	Yellow polymer	NAD
							Black mastic	**2-5% Chrysotile**
							Brown cork	NAD
							Tan wood	NAD
M-CFT-017	Ceramic Floor Tile, 2"x 2", blue	Men's and Women's Restroom floors	Good	Non-friable	400 SF	M-CFT-017A	Blue ceramic	NAD
							White grout	NAD
							Gray mortar	NAD
						M-CFT-017B	Blue ceramic	NAD
							Gray grout	NAD
							Gray mortar	NAD
							Off-white leveling compound	NAD
						M-CFT-017C	Blue ceramic	NAD
							Gray mortar	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-CWT-018	Ceramic Wall Tile, white 4"x 4" tile with blue 2"x 2" tile	Men's and Women's Restroom walls	Good	Non-friable	1,200 SF	M-CWT-018A	White ceramic	NAD
							White grout	NAD
							Gray mortar	NAD
							Off-white leveling compound	NAD
							Black mastic	**>1-2% Chrysotile**
						M-CWT-018B	White ceramic	NAD
							White grout	NAD
							Gray mortar	NAD
							Yellow masti	NAD
						M-CWT-018C	White ceramic	NAD
							Gray mortar	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-WS-019	Wall System, white, orange peel texture	Men's and Women's Restroom walls	Good	Non-friable	2,400 SF	M-WS-019A	Off-white paint	NAD
							Off-white texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
						M-WS-019B	Off-white paint	NAD
							Off-white texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
						M-WS-019C	Off-white paint	NAD
							Off-white texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
						M-WS-019D	Off-white paint	NAD
							Off-white texture/joint	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-CS-020	Ceiling Support System, heavy knockdown texture	Men's Restroom ceiling	Good	Non-friable	200 SF	M-CS-020A	Off-white paint	NAD
							Off-white texture/joint	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
						M-CS-020B	Off-white paint	NAD
							Off-white texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
						M-CS-020C	Off-white paint	NAD
							Off-white texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
M-ACT-021	Acoustical Ceiling Tile, 1'x 1', even spread grid	East Hallway	Good	Friable	800 SF	M-ACT-021A	Off-white paint	NAD
							Yellow acoustical tile	NAD
							Brown mastic	NAD
						M-ACT-021B	Off-white paint	NAD
							Yellow acoustical tile	NAD
							Brown mastic	NAD
						M-ACT-021C	Off-white paint	NAD
							Yellow acoustical tile	NAD
							Brown mastic	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
Homogeneous material identifier 022 was not used in the field.								
M-ACP-023	Acoustical Ceiling Panel, 1'x 1', white, computer pattern grid	Room 106, Equipment Room, Southeast Hallway near pool entrance	Good	Friable	600 SF	M-ACP-023A	Off-white paint	NAD
							Tan acoustical tile	NAD
							Brown glue	NAD
						M-ACP-023B	Off-white paint	NAD
							Tan acoustical tile	NAD
							Brown glue	NAD
						M-ACP-023C	Off-white paint	NAD
							Tan acoustical tile	NAD
							Brown glue	NAD
M-VFT-024	Vinyl Floor Tile with Mastic, 12"x 12", white with blue flecks	Room 124, Hallways throughout	Good	Non-friable	25,000 SF	M-VFT-024A	Blue floor tile	NAD
							Yellow mastic	NAD
							Off-white floor tile	NAD
							Yellow mastic	NAD
						M-VFT-024B	Blue floor tile	NAD
							Yellow mastic	NAD
							Off-white floor tile	NAD
							Yellow mastic	NAD
						M-VFT-024C	Blue floor tile	NAD
							Yellow mastic	NAD
							Off-white floor tile	NAD
							Yellow mastic	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-ACP-025	Acoustical Ceiling Panel, 2'x 4', white, smooth texture	Room 124, West Hallway and North Stair Landing	Good	Friable	2,000 SF	M-ACP-025A	White paint	NAD
							Yellow acoustical tile	NAD
							Tan paper/ cardboard	NAD
							Silver foil	NAD
						M-ACP-025B	White paint	NAD
							Yellow acoustical tile	NAD
							Tan paper/ cardboard	NAD
							Silver foil	NAD
						M-ACP-025C	White paint	NAD
							Yellow acoustical tile	NAD
							Tan paper/ cardboard	NAD
							Silver foil	NAD
M-LIN-026	Linoleum Flooring, beige and gray, pebble texture	Room 128A (restroom), outside of Room 128E, and Room 129A (restroom)	Good	Non-friable	300 SF	M-LIN-026A	Various sheet flooring surface	NAD
							Off-white sheet flooring backing	NAD
							Tan mastic	<=1% Chrysotile
						M-LIN-026B	Various sheet flooring surface	NAD
							Off-white sheet flooring backing	NAD
							Yellow mastic	NAD
						M-LIN-026C	Tan mastic	NAD
							Various sheet flooring surface	NAD
							Off-white sheet flooring backing	NAD
							Tan mastic	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-CBM-027	Cove Base and Mastic, brownish pink	Room 128A (restroom), Custodian Closet next to Room 128	Good	Non-friable	15 SF	M-CBM-027A	Purple base cove	NAD
							Off-white mastic	NAD
							Yellow mastic	NAD
						M-CBM-027B	Purple base cove	NAD
							Off-white mastic	NAD
						M-CBM-027C	Purple base cove	NAD
							Brown mastic	NAD
M-CBM-028	Cove Base and Mastic, 4", light gray	Rooms 128 and 129	Good	Non-friable	15 SF	M-CBM-028A	Gray base cove	NAD
							Off-white mastic	NAD
						M-CBM-028B	Gray base cove	NAD
							Off-white mastic	NAD
						M-CBM-028C	Gray base cove	NAD
							Off-white mastic	NAD
Homogeneous material identifier 029 was not used in the field.								
M-VFT-030	Vinyl Floor Tile, 9"x 9", green	Room 128 underneath M-LIN-026 and M-CPT-005	Good	Non-friable	Unknown	M-VFT-030A	**Green floor tile**	**5-10% Chrysotile**
							Black mastic	**5-10% Chrysotile**
						M-VFT-030B	**Green floor tile**	**5-10% Chrysotile**
							Black mastic	**5-10% Chrysotile**
						M-VFT-030C	**Green floor tile**	**5-10% Chrysotile**
							Black mastic	**5-10% Chrysotile**
						M-VFT-030D	**Green floor tile**	**5-10% Chrysotile**
							Black mastic	**5-10% Chrysotile**

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-VFT-031	Vinyl Floor Tile, 9"x 9", beige, smooth texture	Room 128E	Good	Non-friable	200 SF	M-VFT-031A	**Tan floor tile**	**5-10% Chrysotile**
							Black mastic	**5-10% Chrysotile**
						M-VFT-031B	**Tan floor tile**	**5-10% Chrysotile**
							Black mastic	**5-10% Chrysotile**
						M-VFT-031C	**Tan floor tile**	**5-10% Chrysotile**
							Black mastic	**5-10% Chrysotile**
M-WS-032	Wall System, light sandy texture	Rooms 128 and 129, Custodian, Pool Area, Pool Balcony Area	Good	Non-friable	5,000 SF	M-WS-032A	Off-white paint	NAD
							White plaster (top coat)	NAD
							Tan plaster (scratch coat)	NAD
							Tan paper/ cardboard	NAD
							Drywall core	NAD
						M-WS-032B	Off-white paint	NAD
							White plaster (top coat)	NAD
							Tan plaster (scratch coat)	NAD
						M-WS-032C	Various paint	NAD
							Gray stucco	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-ACT-033	Acoustical Ceiling Tile, 1'x 1', brown mastic, smooth texture	Custodian Room next to Room 128, Women's Restroom	Good	Friable	350 SF	M-ACT-033A	White surface	NAD
							Yellow acoustical tile	NAD
							Tan glue	NAD
						M-ACT-033B	White surface	NAD
							Yellow acoustical tile	NAD
							Tan glue	NAD
							Brown glue	NAD
						M-ACT-033C	White surface	NAD
							Yellow acoustical tile	NAD
							Tan glue	NAD
							Brown glue	NAD
M-CFT-034	Ceramic Floor Tile, 6"x 6", beige with dark brown grout	North Entrance Vestibule on floor	Good	Non-friable	750 SF	M-CFT-034A	**Black mastic**	**5-10% Chrysotile**
							Tan ceramic	NAD
							Gray mortar	NAD
						M-CFT-034B	**Black mastic**	**5-10% Chrysotile**
							Tan ceramic	NAD
							Gray mortar	NAD
						M-CFT-034C	Tan ceramic	NAD
							Gray mortar	NAD
M-CWT-035	Ceramic Wall Tile, 1"x 1", multi-beige	North Entrance Exterior on west wall	Good	Non-friable	1,500 SF	M-CWT-035A	Off-white ceramic	NAD
							Gray grout	NAD
							Tan ceramic	NAD
						M-CWT-035B	Off-white ceramic	NAD
							Gray grout	NAD
						M-CWT-035C	Off-white ceramic	NAD
							Gray grout	NAD
M-TRANS-036	Transite Panels	Lower Portion of Exterior Windows	Good	Non-friable	2,500 SF	**This material is assumed to be asbestos-containing.**		

Homogeneous Material Information						Analytical Data		
Homogeneous Material	**Description**	**Location[1]**	**Condition[2]**	**Friability[3]**	**Quantity**	**Sample Number**	**Layer**	**Result**
M-CAULK-037	Caulk, thin, gray	Lower Portion of Exterior Windows associated with M-TRANS-036	Good	Non-friable	< 5 SF	M-CAULK-037A	Off-white paint	NAD
							Clear sealant	NAD
						M-CAULK-037B	Off-white paint	NAD
							Clear sealant	NAD
							Black Sealant	NAD
						M-CAULK-037C	Tan sealant	NAD
M-CFT-038	Cermic Floor Tile, 1"x 1", multi-colored, rough texture	Pool Area decking	Good	Non-friable	3,000 SF	M-CFT-038A	Off-white ceramic	NAD
							Gray grout	NAD
						M-CFT-038B	Off-white ceramic	NAD
							Gray grout	NAD
						M-CFT-038C	Off-white ceramic	NAD
							Gray grout	NAD
M-ROOF-039	Roofing, mopped tar with gravel	Roof, above North Entrance Vestibule	Good	Friable	8,000 SF	M-ROOF-039A	Black roof ply/bitumen	NAD
							Tan plaster	NAD
						M-ROOF-039B	Black roof ply/bitumen	NAD
							Tan plaster	NAD
						M-ROOF-039C	Black roof ply/bitumen	NAD
							Tan plaster	NAD
Homogeneous material identifier 040 was not used in the field.								

Homogeneous Material Information						Analytical Data		
Homogeneous Material	Description	Location[1]	Condition[2]	Friability[3]	Quantity	Sample Number	Layer	Result
M-WS-041	Wall System, white, smooth texture	Pool Balcony, on south wall	Good	Non-friable	3,000 SF	M-WS-041A	Off-white paint	NAD
							White texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
						M-WS-041B	Off-white paint	NAD
							White texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
						M-WS-041C	Off-white paint	NAD
							White texture/joint compound	NAD
							Tan paper/cardboard	NAD
							White drywall core	NAD
M-CWT-042	Ceramic Wall Tile, 4"x 8", light green sometimes painted white with white grout	Storage, Men's and Women's Public Locker Rooms, on walls	Good	Non-friable	2,500 SF	M-CWT-042A	White ceramic	NAD
							White grout	NAD
						M-CWT-042B	White ceramic	NAD
							White grout	NAD
						M-CWT-042C	White ceramic	NAD
							White grout	NAD
M-CFT-043	Ceramic Floor Tile, octagonal 1"x 1", light brown with brown grout	Storage Room (back room)	Good	Non-friable	150 SF	M-CFT-043A	Tan ceramic	NAD
							Gray grout	NAD
						M-CFT-043B	Tan ceramic	NAD
							Gray grout	NAD
						M-CFT-043C	Tan ceramic	NAD
							Gray grout	NAD
M-CFT-044	Ceramic Floor Tile, 2"x 2", brown with dark brown grout	Storage Room, Men's and Women's Public Restrooms	Good	Non-friable	3,000 SF	M-CFT-044A	Tan ceramic	NAD
							Gray grout	NAD
						M-CFT-044B	Tan ceramic	NAD
							Gray grout	NAD
						M-CFT-044C	Tan ceramic	NAD
							Gray grout	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	Description	Location[1]	Condition[2]	Friability[3]	Quantity	Sample Number	Layer	Result
M-WG-045	Window Glazing	Exterior, north side of building	Damaged	Non-friable	< 5 SF	M-WG-045A	White surface	NAD
							Gray putty	<=1% Chrysotile
						M-WG-045B	White surface	NAD
							Gray putty	<=1% Chrysotile
						M-WG-045C	White surface	NAD
							Gray putty	<=1% Chrysotile
M-CFT-046	Ceramic Floor Tile, 2"x 2" beige tiles, 1"x 2" green tiles with brown grout	Men's and Women's Public Locker Rooms, on floors	Good	Non-friable	5,000 SF	M-CFT-046A	Green tile	NAD
							Tan tile	NAD
						M-CFT-046B	Tan tile	NAD
							Gray grout	NAD
							Gray mortar	NAD
						M-CFT-046C	Tan tile	NAD
							Gray grout	NAD
M-CWT-047	Ceramic Wall Tile, 4"x 4", white and green, glassy finish	Men's and Women's Public Locker Room, on walls	Good	Non-friable	3,000 SF	M-CWT-047A	White tile	NAD
							Off-white grout	NAD
							Off-white mortar	NAD
							Green tile	NAD
							Off-white grout	NAD
							Off-white mastic	NAD
						M-CWT-047B	White tile	NAD
							Off-white grout	NAD
							Off-white mortar	NAD
							Green tile	NAD
							Off-white grout	NAD
							Off-white mastic	NAD
						M-CWT-047C	White tile	NAD
							Off-white grout	NAD
							Off-white mortar	NAD

Homogeneous Material Information						Analytical Data		
Homogeneous Material	Description	Location[1]	Condition[2]	Friability[3]	Quantity	Sample Number	Layer	Result
M-CBM-048	Cove Base and Mastic, 4", green	Men's and Women's Public Locker Rooms	Good	Non-friable	500 SF	M-CBM-048A	Green base cove	NAD
							Off-white mastic	NAD
						M-CBM-048B	Green base cove	NAD
							Off-white mastic	NAD
						M-CBM-048C	Green base cove	NAD
							Off-white mastic	NAD
M-CERCBM-049	Ceramic Tile, 4"x 4" and 1"x 1", beige	Women's Public Locker Room, along shower gutters	Good	Non-friable	300 SF	M-CERCBM-049A	Tan ceramic	NAD
							Off-white grout	NAD
						M-CERCBM-049B	Tan ceramic	NAD
							Off-white grout	NAD
							Gray mastic	NAD
						M-CERCBM-049C	Tan ceramic	NAD
							Off-white grout	NAD
							Gray mastic	NAD

Notes:

[1] The locations and amounts of suspect materials are approximate and based on initial field observations made during the sampling activities, prior to receipt of analytical results. It is the responsibility of the Contractor to verify the location and amounts of all materials.

[2] Condition is either Good, Damaged, or Significantly Damaged

[3] Friable: Material that when dry can be crumbled, pulverized, or reduced to powder by hand pressure.

[4] NAD: No Asbestos Detected

[5] SF : square feet

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

September 19, 2012

Cristina Brischler
Strata
8653 W Hackamore Drive
Boise, ID 83709

RE: Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Dear Cristina Brischler:
Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle Hubbling

michelle.hubbling@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE ANALYTE COUNT

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10204955001	**M-Caulk-037-PCB**	EPA 8082	KL1	11	PASI-M

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Minneapolis, MN 55414
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ANALYTICAL RESULTS

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Sample: M-Caulk-037-PCB **Lab ID: 10204955001** Collected: 09/06/12 00:00 Received: 09/11/12 09:55 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Soxtherm	Analytical Method: EPA 8082 Preparation Method: EPA 3541							
PCB-1016 (Aroclor 1016)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**868000**	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11100-14-4	
Surrogates								
Tetrachloro-m-xylene (S)	0	%	30-150	100	09/11/12 13:43	09/18/12 13:27	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	100	09/11/12 13:43	09/18/12 13:27	2051-24-3	S4

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QUALITY CONTROL DATA

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

QC Batch: OEXT/19644 Analysis Method: EPA 8082
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 10204955001

METHOD BLANK: 1284790 Matrix: Solid
Associated Lab Samples: 10204955001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1221 (Aroclor 1221)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1232 (Aroclor 1232)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1242 (Aroclor 1242)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1248 (Aroclor 1248)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1254 (Aroclor 1254)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1260 (Aroclor 1260)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1262 (Aroclor 1262)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1268 (Aroclor 1268)	ug/kg	ND	33.0	09/14/12 12:29	
Decachlorobiphenyl (S)	%	88	30-150	09/14/12 12:29	
Tetrachloro-m-xylene (S)	%	33	30-150	09/14/12 12:29	

LABORATORY CONTROL SAMPLE & LCSD: 1284791 1284792

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	667	633	616	95	92	65-125	3	20	
PCB-1260 (Aroclor 1260)	ug/kg	667	556	532	83	80	60-125	4	20	
Decachlorobiphenyl (S)	%				97	85	30-150			
Tetrachloro-m-xylene (S)	%				92	90	30-150			

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QUALIFIERS

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: GCSV/10127

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10204955001	**M-Caulk-037-PCB**	EPA 3541	OEXT/19644	EPA 8082	GCSV/10127

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Minneapolis, MN 55414
612-607-1700

1125 10204955

Page: 1 of 1

8 of 10

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Strata, Inc.	Report To:	Cristina Brischler	Attention:	same
Address:	8653 W Hackamore Drive	Copy To:		Company Name:	
	Boise, ID 83709 CB			Address:	
Email To:	cbrischler@stratageotech.com	Purchase Order No.:	ON12030A	Pace Quote Reference:	
Phone: 208-376-8200	Fax: 208-376-8201	Project Name:	Quinn Coliseum Building Survey	Pace Project Manager:	
Requested Due Date/TAT:	Normal	Project Number:	ON12030A	Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER _____

Site Location STATE: ~~CB~~ OR

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	Section D Required Client Information / SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test: PCB in caulk	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	M-CAULK-037-PCB ~~PCB~~ CB	~~WP~~ SL	G	~~3/29/12~~ 9/6/12 CB	NA	NA	NA	80	1	X								N	X		601
2	CB																				
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		9-10-12	0825		9/11/12	955	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cristina Brischler

SIGNATURE of SAMPLER: | DATE Signed (MM/DD/YY): 3/29/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: StrataA **Project #:** WO# : 10204955

10204955

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☐Pace ☐Other:

Tracking Number: 8254 6829 7685

Custody Seal on Cooler/Box Present? ☐Yes ☑No **Seals Intact?** ☐Yes ☐No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☑Bubble Bags ☐None ☐Other: **Temp Blank?** ☐Yes ☑No

Thermometer Used: ☑B88A912167504 ☐80512447 **Type of Ice:** ☐Wet ☐Blue ☐None ☐Samples on ice, cooling process has begun

Cooler Temperature: 0.8 **Biological Tissue Frozen?** ☐Yes ☐No **Date and Initials of Person Examining Contents:** 9/11/12 ch

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out?	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☑Yes	☐No	☐N/A	3.
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☑No	☐N/A	7.
Sufficient Volume?	☑Yes	☐No	☐N/A	8.
Correct Containers Used?	☑Yes	☐No	☐N/A	9. baggie
-Pace Containers Used?	☐Yes	☑No	☐N/A	
Containers Intact?	☑Yes	☐No	☐N/A	10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☑N/A	11.
Sample Labels Match COC?	☑Yes	☐No	☐N/A	12.
-Includes Date/Time/ID/Analysis Matrix: SL				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐Yes	☐No	☑N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH ☐HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐Yes	☐No	☑N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐Yes	☑No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐Yes	☐No	☑N/A	14.
Trip Blank Present?	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 9/11/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical®	Document Name: Sample Container Count	Document Revised: 22Sept2011 Page 1 of 1
	Document No.: F-MN-C-090-Rev.00	Issuing Authority: Pace Minnesota Quality Office

Client: _____ **Project #:** _____

COC ID: _____ **COC Page** _____ of _____

Sample Line Item	~~DG9H~~ PB	AG1U	WGFU	JGFU	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	VG9M	VG9H	VG9U	Comments
1	1															
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

Container Codes:

DG9H	40mL HCL amber VOA vial	AF	Air Filter	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber glass	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved **amber** vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber glass	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber glass	BP3A	250mL NaOh, Asc Acid plastic	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved **clear** vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear glass	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

FIBERQUANT ANALYTICAL SERVICES

Atomic Absorption Spectrometer (AAS) Analysis of Paint

JobNumber: **201208687**

Client:

STRATA INC

8653 W HACKAMORE DR

BOISE, ID 83704-0000

Office Phone: (208) 376-8200

FAX: (208) 376-8201

 # Samples: 10 AA **Rec:** 9/11/2012 **Method:** Modified SW 846 3050b/7420 Pb in paint by weight AA Analysis

Client Job: Quinn Coliseum **PO Number:** ON12030A

Report Date: 9/13/2012 **Date Analyzed:** 9/13/2012 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** AApw

The received samples were analyzed for Pb (total) using "Test Methods for Evaluating Solid Waste" (SW 846, December 1996 updates). The extraction/digestion method was SW 3050b. The analytical method is "flame atomic absorption, direct aspiration", SW 7420.. Briefly the procedures are as follows. The incoming paint samples are first homogenized by mixing and crushing. A sub-sample is weighed to 0.0001 gm into a 50ml centrifuge tube. To the run stream are added the quality assurance samples described below. Six mls of concentrated HNO3 and one ml of 30% H2O2 are added to each container. The tubes are caped and heated for 1 hour at 95 deg. C. After cooling, the contents of the centrifuge tube are brought up to exactly 25 mls, completing the digestion/extraction.

The sample and quality assurance extractions are then analyzed on a TJA M5 flame atomic absorption spectrometer. The wavelengths and other instrumental settings are set according to the manufacturer's recommendations, or as otherwise specified in the published method. Absorptions are recorded from sample and standard solutions. A calibration curve is fitted to at least three standard solutions, and the concentrations of the sample extracts are calculated from the curve. The ppm (ug/gm) and weight percent for each sample is calculated from the sub-sample weight, extract volume, and extract concentration.

The results from this analysis is generally compared to either the HUD guidelines, in which a sample is positive if it contains >0.5% (5000 ppm) Pb, or the Consumer Products Safety Commission (CPSC) limit, in which a paint or surface coating containing greater than 90 ppm is defined as lead-containing. The expected coefficient of variation for this method is approximately 20-30%. The results are reported to two significant figures. The Sample Reporting Limit (RL) listed below is twice the Sample Detection Limit, which is calculated for each sample from the experimentally determined Method Detection Limit. The limit of reliable quantitatiion is generally regarded as five to ten times the limit of detection. Therefore, samples smaller than 0.1 gm may give results too near the CPSC standard to be reliable. Problems in analysis or other information is provided in the "Analytical Notes" below. Blanks, if analyzed, are treated the same as samples and are not used for correcting non-blank results.

The following on-going quality assurance program was followed to ensure reproducible and dependable results: All analysts are degreed chemists trained extensively in-house for at least six months prior to un-supervised runs. Blank matrix samples are analyzed at a rate of 5% (at least one per run). Reference standards are analyzed at a rate of 5% (at least one per run), and compared to statistical records via control charts. Spiked matrix samples are analyzed at a rate of 5% (at least one per run), and compared to statistical records via control charts. Duplicate samples are analyzed at a rate of 5% (at least one per run), and compared to statistical records via control charts. For each instrumental run, the spectrometer is checked for sensitivity and stability. The calibration standards are made fresh weekly, and checked each run against a calibration verification standard from another source. All calculations are performed twice - once in a calibration spreadsheet, and once during the report generation, and also checked by hand. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. Fiberquant participates in the Environmental Lead Proficiency Analytical Testing (ELPAT) program, is accredited by AIHA-LAP, LLC for environmental lead in paint (Lab # 101593), and is recognized by the National Lead Laboratory Accreditation Program (NLLAP) for the analysis of Pb in paint. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Calibration Curve:

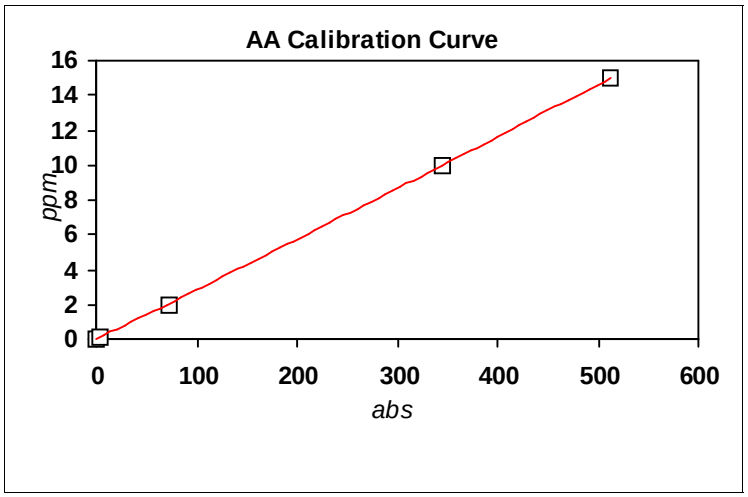
Pb

Run # 8814 ***9/13/2012***

Instrument: M5-2

Standards:	ppm	avg. mAbs.
1	0.13	3
2	2	73
3	10	344
4	15	513

ax2	0.00000186
bx	0.02832142
c	-0.00298
R2	0.9999466



Analysis Results:

Job Number:	201208687

AApw

Lab Number	Client Number	Date	Condition	Weight (gm)	ug/ml	ml	Dil	Analyte	wt %	ppm	RL(ppm)
2012-08687- 1	LBP-1	9/6/2012	acceptable	0.2026	5.30014	25	1	Pb	0.065	650	16
2012-08687- 2	LBP-2	9/6/2012	acceptable	0.2167	1.36073	25	50	Pb	0.78	7800	15
2012-08687- 3	LBP-3	9/6/2012	acceptable	0.2109	-0.003	25	1	Pb	<0.0015	<15	15
2012-08687- 4	LBP-4	9/6/2012	acceptable	0.2071	-0.003	25	1	Pb	<0.0016	<16	16
2012-08687- 5	LBP-5	9/6/2012	acceptable	0.2551	3.56626	25	50	Pb	1.7	17000	13
2012-08687- 6	LBP-6	9/6/2012	acceptable	0.2257	0.19536	25	1	Pb	0.0022	22	14
2012-08687- 7	LBP-7	9/6/2012	acceptable	0.2193	1.64592	25	1	Pb	0.019	190	15
2012-08687- 8	LBP-8	9/6/2012	acceptable	0.2035	1.70300	25	50	Pb	1	10000	16
2012-08687- 9	LBP-9	9/6/2012	acceptable	0.0931	2.70434	25	50	Pb	3.6	36000	35
2012-08687- 10	LBP-10	9/6/2012	acceptable	0.1692	0.84834	25	50	Pb	0.63	6300	19

Martin Esquer

Analyst: MARTIN A. ESQUER

Printed: 13-Sep-12

Original Print Date: 13-Sep-12

Larry S. Pierce

Larry S. Pierce, Approved Accreditation Signatory

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Strata, Inc.	
Address 8653 W Hackamore Drive	
City, State, Zip Code Boise, ID 83704	
Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☐ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☐	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☒ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☒	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (Include asar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) LBP-1	white wall paint	9/6/12		
2) LBP-2	White door paint			
3) LBP-3	dark blue door paint			
4) LBP-4	dark green concrete floor paint			
5) LBP-5	Sage green door paint			
6) LBP-6	lt. blue wall paint			
7) LBP-7	beige wall paint			
8) LBP-8	(yellow) door paint			
9) LBP-9	brown door jamb paint			
10) LBP-10	lt. green concrete wall paint	↓		
11)				
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				

1)Relinquished by:	Date: 9-10-12	Time: 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:42	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name F/X			Page 1 of 1	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208687

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber:	**201208688**

Client: **STRATA INC**

8653 W HACKAMORE DR

BOISE, ID 83704-0000

Office Phone: (208) 376-8200
FAX: (208) 376-8201

 # Samples: 139 PLM **Rec:** 9/11/2012 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: Quinn Coliseum **PO Number:** ON12030A

Report Date: 9/14/2012 **Date Analyzed:** 9/14/2012 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40CFT Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Sample # M-ACP-040D was listed on client chain-of-custody but later removed. This sample was mistakenly added to job but not received.

PLM Analysis Summary: **Job Number: 201208688** Quinn Coliseum

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # **M-VFT-001A**			2012-08688- 1	Flooring	Positive Layer? Yes
Layer # 1	off-white	floor tile		*no asbestos detected*	
Layer # 2	black	mastic		*5-10% chrysotile asbestos*	
Sample # **M-VFT-001B**			2012-08688- 2	Flooring	Positive Layer? Yes
Layer # 1	off-white	floor tile		*no asbestos detected*	
Layer # 2	yellow	mastic		*no asbestos detected*	
Layer # 3	black	mastic		*5-10% chrysotile asbestos*	
Sample # **M-VFT-001C**			2012-08688- 3	Flooring	Positive Layer? Yes
Layer # 1	off-white	floor tile		*no asbestos detected*	
Layer # 2	yellow	mastic		*no asbestos detected*	
Layer # 3	black	mastic		*5-10% chrysotile asbestos*	
Sample # **M-CBM-002A**			2012-08688- 4	Miscellaneous	Positive Layer? No
Layer # 1	brown	base cove		*no asbestos detected*	
Layer # 2	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-002B**			2012-08688- 5	Miscellaneous	Positive Layer? No
Layer # 1	brown	base cove		*no asbestos detected*	
Layer # 2	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-002C**			2012-08688- 6	Miscellaneous	Positive Layer? No
Layer # 1	brown	base cove		*no asbestos detected*	
Layer # 2	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-003A**			2012-08688- 7	Miscellaneous	Positive Layer? No
Layer # 1	blue	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Sample # **M-CBM-003B**			2012-08688- 8	Miscellaneous	Positive Layer? No
Layer # 1	blue	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Layer # 3	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-003C**			2012-08688- 9	Miscellaneous	Positive Layer? No
Layer # 1	blue	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Layer # 3	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-004A**			2012-08688- 10	Miscellaneous	Positive Layer? No
Layer # 1	off-white	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Layer # 3	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-004B**			2012-08688- 11	Miscellaneous	Positive Layer? No
Layer # 1	off-white	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Sample # **M-CBM-004C**			2012-08688- 12	Miscellaneous	Positive Layer? No
Layer # 1	off-white	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Sample # **M-CPT-005A**			2012-08688- 13	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	
Sample # **M-CPT-005B**			2012-08688- 14	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	
Sample # **M-CPT-005C**			2012-08688- 15	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	
Sample # **M-CPT-006A**			2012-08688- 16	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Sample # **M-CPT-006B**			2012-08688- 17	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	

Sample # **M-CPT-006C**			2012-08688- 18	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-WS-007A**			2012-08688- 19	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*<=1% chrysotile asbestos*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-007B**			2012-08688- 20	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*<=1% chrysotile asbestos*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-007C**			2012-08688- 21	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*<=1% chrysotile asbestos*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CONC-008A**			2012-08688- 22	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Sample # **M-CONC-008B**			2012-08688- 23	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	gray	concrete	*no asbestos detected*		
Sample # **M-CONC-008C**			2012-08688- 24	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Sample # **M-ACP-009A**			2012-08688- 25	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-009B**			2012-08688- 26	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-009C**			2012-08688- 27	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010A**			2012-08688- 28	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010B**			2012-08688- 29	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010C**			2012-08688- 30	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010D**			2012-08688- 31	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACT-011A**			2012-08688- 32	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Layer # 4	off-white	paint	*no asbestos detected*		
Layer # 5	off-white	plaster	*no asbestos detected*		
Sample # **M-ACT-011B**			2012-08688- 33	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Layer # 4	off-white	paint	*no asbestos detected*		
Sample # **M-ACT-011C**			2012-08688- 34	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Layer # 4	off-white	paint	*no asbestos detected*		
Sample # **M-CPT-012A**			2012-08688- 35	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-012B**			2012-08688- 36	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-012C**			2012-08688- 37	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-WS-013A**			2012-08688- 38	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		

Sample # **M-WS-013B**			2012-08688- 39	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		
Layer # 3	off-white	plaster (scratch coat)	*no asbestos detected*		
Sample # **M-WS-013C**			2012-08688- 40	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	paper/cardboard	*no asbestos detected*		
Layer # 3	white	plaster (top coat)	*no asbestos detected*		
Sample # **M-CPT-014A**			2012-08688- 41	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-014B**			2012-08688- 42	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-014C**			2012-08688- 43	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Sample # **M-CBM-015A**			2012-08688- 44	Miscellaneous	Positive Layer? No
Layer # 1	black	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Layer # 3	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-015B**			2012-08688- 45	Miscellaneous	Positive Layer? No
Layer # 1	blue	paint	*no asbestos detected*		
Layer # 2	black	base cove	*no asbestos detected*		
Layer # 3	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-015C**			2012-08688- 46	Miscellaneous	Positive Layer? No
Layer # 1	blue	paint	*no asbestos detected*		
Layer # 2	black	base cove	*no asbestos detected*		
Layer # 3	off-white	mastic	*no asbestos detected*		
Sample # **M-PAR-016A**			2012-08688- 47	Flooring	Positive Layer? Yes
Layer # 1	yellow	polymer	*no asbestos detected*		
Layer # 2	black	mastic	*2-5% chrysotile asbestos*		
Layer # 3	brown	cork	*no asbestos detected*		
Layer # 4	tan	wood	*no asbestos detected*		
Sample # **M-PAR-016B**			2012-08688- 48	Flooring	Positive Layer? Yes
Layer # 1	yellow	polymer	*no asbestos detected*		
Layer # 2	black	mastic	*2-5% chrysotile asbestos*		
Layer # 3	brown	cork	*no asbestos detected*		
Layer # 4	tan	wood	*no asbestos detected*		
Sample # **M-PAR-016C**			2012-08688- 49	Flooring	Positive Layer? Yes
Layer # 1	yellow	polymer	*no asbestos detected*		
Layer # 2	black	mastic	*2-5% chrysotile asbestos*		
Layer # 3	brown	cork	*no asbestos detected*		
Layer # 4	tan	wood	*no asbestos detected*		
Sample # **M-CFT-017A**			2012-08688- 50	Miscellaneous	Positive Layer? No
Layer # 1	blue	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-017B**			2012-08688- 51	Miscellaneous	Positive Layer? No
Layer # 1	blue	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Layer # 4	off-white	leveling compound	*no asbestos detected*		
Sample # **M-CFT-017C**			2012-08688- 52	Miscellaneous	Positive Layer? No
Layer # 1	blue	ceramic	*no asbestos detected*		
Layer # 2	gray	mortar	*no asbestos detected*		
Sample # **M-CWT-018A**			2012-08688- 53	Miscellaneous	Positive Layer? Yes
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Layer # 4	off-white	leveling compound	*no asbestos detected*		
Layer # 5	black	mastic	*>1-2% chrysotile asbestos*		
Sample # **M-CWT-018B**			2012-08688- 54	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-CWT-018C**			2012-08688- 55	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	gray	mortar	*no asbestos detected*		
Sample # **M-WS-019A**			2012-08688- 56	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		

Sample # **M-WS-019B**			2012-08688- 57	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-019C**			2012-08688- 58	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-019D**			2012-08688- 59	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CS-020A**			2012-08688- 60	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CS-020B**			2012-08688- 61	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CS-020C**			2012-08688- 62	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-ACT-021A**			2012-08688- 63	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Sample # **M-ACT-021B**			2012-08688- 64	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Sample # **M-ACT-021C**			2012-08688- 65	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Sample # **M-ACP-023A**			2012-08688- 66	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Layer # 3	brown	glue	*no asbestos detected*		
Sample # **M-ACP-023B**			2012-08688- 67	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Layer # 3	brown	glue	*no asbestos detected*		
Sample # **M-ACP-023C**			2012-08688- 68	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Layer # 3	brown	glue	*no asbestos detected*		
Sample # **M-VFT-024A**			2012-08688- 69	Flooring	Positive Layer? No
Layer # 1	blue	floor tile	*no asbestos detected*		
Layer # 2	yellow	mastic	*no asbestos detected*		
Layer # 3	off-white	floor tile	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-VFT-024B**			2012-08688- 70	Flooring	Positive Layer? No
Layer # 1	blue	floor tile	*no asbestos detected*		
Layer # 2	yellow	mastic	*no asbestos detected*		
Layer # 3	off-white	floor tile	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-VFT-024C**			2012-08688- 71	Flooring	Positive Layer? No
Layer # 1	blue	floor tile	*no asbestos detected*		
Layer # 2	yellow	mastic	*no asbestos detected*		
Layer # 3	off-white	floor tile	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-ACP-025A**			2012-08688- 72	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	silver	foil	*no asbestos detected*		

Sample # **M-ACP-025B**			2012-08688- 73	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	silver	foil	*no asbestos detected*		
Sample # **M-ACP-025C**			2012-08688- 74	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	silver	foil	*no asbestos detected*		
Sample # **M-LIN-026A**			2012-08688- 75	Flooring	Positive Layer? No
Layer # 1	various	sheet flooring surface	*no asbestos detected*		
Layer # 2	off-white	sheet flooring backing	*no asbestos detected*		
Layer # 3	tan	mastic	*<=1% chrysotile asbestos*		
Sample # **M-LIN-026B**			2012-08688- 76	Flooring	Positive Layer? No
Layer # 1	various	sheet flooring surface	*no asbestos detected*		
Layer # 2	off-white	sheet flooring backing	*no asbestos detected*		
Layer # 3	yellow	mastic	*no asbestos detected*		
Sample # **M-LIN-026C**			2012-08688- 77	Flooring	Positive Layer? No
Layer # 1	tan	mastic	*no asbestos detected*		
Layer # 2	various	sheet flooring surface	*no asbestos detected*		
Layer # 3	off-white	sheet flooring backing	*no asbestos detected*		
Layer # 4	tan	mastic	*no asbestos detected*		
Sample # **M-CBM-027A**			2012-08688- 78	Miscellaneous	Positive Layer? No
Layer # 1	purple	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Layer # 3	yellow	mastic	*no asbestos detected*		
Sample # **M-CBM-027B**			2012-08688- 79	Miscellaneous	Positive Layer? No
Layer # 1	purple	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-027C**			2012-08688- 80	Miscellaneous	Positive Layer? No
Layer # 1	purple	base cove	*no asbestos detected*		
Layer # 2	brown	mastic	*no asbestos detected*		
Sample # **M-CBM-028A**			2012-08688- 81	Miscellaneous	Positive Layer? No
Layer # 1	gray	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-028B**			2012-08688- 82	Miscellaneous	Positive Layer? No
Layer # 1	gray	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-028C**			2012-08688- 83	Miscellaneous	Positive Layer? No
Layer # 1	gray	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-VFT-030A**			2012-08688- 84	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-030B**			2012-08688- 85	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-030C**			2012-08688- 86	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-030D**			2012-08688- 87	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-031A**			2012-08688- 88	Flooring	Positive Layer? Yes
Layer # 1	tan	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-031B**			2012-08688- 89	Flooring	Positive Layer? Yes
Layer # 1	tan	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-031C**			2012-08688- 90	Flooring	Positive Layer? Yes
Layer # 1	tan	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-WS-032A**			2012-08688- 91	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		
Layer # 3	tan	plaster (scratch coat)	*no asbestos detected*		
Layer # 4	tan	paper/cardboard	*no asbestos detected*		
Layer # 5	white	drywall core	*no asbestos detected*		
Sample # **M-WS-032B**			2012-08688- 92	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		
Layer # 3	tan	plaster (scratch coat)	*no asbestos detected*		

Sample # **M-WS-032C**			2012-08688- 93	Cementitious	Positive Layer? No
Layer # 1	various	paint	*no asbestos detected*		
Layer # 2	gray	stucco	*no asbestos detected*		
Sample # **M-ACT-033A**			2012-08688- 94	Acoustical Tile	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	glue	*no asbestos detected*		
Sample # **M-ACT-033B**			2012-08688- 95	Acoustical Tile	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	glue	*no asbestos detected*		
Layer # 4	brown	glue	*no asbestos detected*		
Sample # **M-ACT-033C**			2012-08688- 96	Acoustical Tile	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	glue	*no asbestos detected*		
Layer # 4	brown	glue	*no asbestos detected*		
Sample # **M-CFT-034A**			2012-08688- 97	Miscellaneous	Positive Layer? Yes
Layer # 1	black	mastic	*5-10% chrysotile asbestos*		
Layer # 2	tan	ceramic	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-034B**			2012-08688- 98	Miscellaneous	Positive Layer? Yes
Layer # 1	black	mastic	*5-10% chrysotile asbestos*		
Layer # 2	tan	ceramic	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-034C**			2012-08688- 99	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	mortar	*no asbestos detected*		
Sample # **M-CWT-035A**			2012-08688- 100	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Layer # 3	tan	ceramic	*no asbestos detected*		
Sample # **M-CWT-035B**			2012-08688- 101	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CWT-035C**			2012-08688- 102	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CAULK-037A**			2012-08688- 103	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	clear	sealant	*no asbestos detected*		
Sample # **M-CAULK-037B**			2012-08688- 104	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	clear	sealant	*no asbestos detected*		
Layer # 3	black	sealant	*no asbestos detected*		
Sample # **M-CAULK-037C**			2012-08688- 105	Adhesive/caulk	Positive Layer? No
Layer # 1	tan	sealant	*no asbestos detected*		
Sample # **M-CFT-038A**			2012-08688- 106	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-038B**			2012-08688- 107	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-038C**			2012-08688- 108	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-ROOF-039A**			2012-08688- 109	Roofing	Positive Layer? No
Layer # 1	black	roof ply/bitumen	*no asbestos detected*		
Layer # 2	tan	plaster	*no asbestos detected*		
Sample # **M-ROOF-039B**			2012-08688- 110	Roofing	Positive Layer? No
Layer # 1	black	roof ply/bitumen	*no asbestos detected*		
Layer # 2	tan	plaster	*no asbestos detected*		
Sample # **M-ROOF-039C**			2012-08688- 111	Roofing	Positive Layer? No
Layer # 1	black	roof ply/bitumen	*no asbestos detected*		
Layer # 2	tan	plaster	*no asbestos detected*		
Sample # **M-WS-041A**			2012-08688- 112	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-041B**			2012-08688- 113	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		

Sample # **M-WS-041C**			2012-08688- 114	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CWT-042A**			2012-08688- 115	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Sample # **M-CWT-042B**			2012-08688- 116	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Sample # **M-CWT-042C**			2012-08688- 117	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Sample # **M-CFT-043A**			2012-08688- 118	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-043B**			2012-08688- 119	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-043C**			2012-08688- 120	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-ACP-040D**			2012-08688- 121	Not Analyzed	
Sample # **M-CFT-044A**			2012-08688- 122	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-044B**			2012-08688- 123	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-044C**			2012-08688- 124	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-WG-045A**			2012-08688- 125	Adhesive/caulk	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	gray	putty	*<=1% chrysotile asbestos*		
Sample # **M-WG-045B**			2012-08688- 126	Adhesive/caulk	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	gray	putty	*<=1% chrysotile asbestos*		
Sample # **M-WG-045C**			2012-08688- 127	Adhesive/caulk	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	gray	putty	*<=1% chrysotile asbestos*		
Sample # **M-CFT-046A**			2012-08688- 128	Miscellaneous	Positive Layer? No
Layer # 1	green	tile	*no asbestos detected*		
Layer # 2	tan	tile	*no asbestos detected*		
Sample # **M-CFT-046B**			2012-08688- 129	Miscellaneous	Positive Layer? No
Layer # 1	tan	tile	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-046C**			2012-08688- 130	Miscellaneous	Positive Layer? No
Layer # 1	tan	tile	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CWT-047A**			2012-08688- 131	Miscellaneous	Positive Layer? No
Layer # 1	white	tile	*no asbestos detected*		
Layer # 2	off-white	grout	*no asbestos detected*		
Layer # 3	off-white	mortar	*no asbestos detected*		
Layer # 4	green	tile	*no asbestos detected*		
Layer # 5	off-white	grout	*no asbestos detected*		
Layer # 6	off-white	mastic	*no asbestos detected*		
Sample # **M-CWT-047B**			2012-08688- 132	Miscellaneous	Positive Layer? No
Layer # 1	white	tile	*no asbestos detected*		
Layer # 2	off-white	grout	*no asbestos detected*		
Layer # 3	off-white	mortar	*no asbestos detected*		
Layer # 4	green	tile	*no asbestos detected*		
Layer # 5	off-white	grout	*no asbestos detected*		
Layer # 6	off-white	mastic	*no asbestos detected*		
Sample # **M-CWT-047C**			2012-08688- 133	Miscellaneous	Positive Layer? No
Layer # 1	white	tile	*no asbestos detected*		
Layer # 2	off-white	grout	*no asbestos detected*		
Layer # 3	off-white	mortar	*no asbestos detected*		
Sample # **M-CBM-048A**			2012-08688- 134	Miscellaneous	Positive Layer? No
Layer # 1	green	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		

Sample #	**M-CBM-048B**		2012-08688- 135	Miscellaneous		Positive Layer? No
	Layer # 1	green	base cove	*no asbestos detected*		
	Layer # 2	off-white	mastic	*no asbestos detected*		
Sample #	**M-CBM-048C**		2012-08688- 136	Miscellaneous		Positive Layer? No
	Layer # 1	green	base cove	*no asbestos detected*		
	Layer # 2	off-white	mastic	*no asbestos detected*		
Sample #	**M-CERCBM-049A**		2012-08688- 137	Miscellaneous		Positive Layer? No
	Layer # 1	tan	ceramic	*no asbestos detected*		
	Layer # 2	off-white	grout	*no asbestos detected*		
Sample #	**M-CERCBM-049B**		2012-08688- 138	Miscellaneous		Positive Layer? No
	Layer # 1	tan	ceramic	*no asbestos detected*		
	Layer # 2	off-white	grout	*no asbestos detected*		
	Layer # 3	gray	mastic	*no asbestos detected*		
Sample #	**M-CERCBM-049C**		2012-08688- 139	Miscellaneous		Positive Layer? No
	Layer # 1	tan	ceramic	*no asbestos detected*		
	Layer # 2	off-white	grout	*no asbestos detected*		
	Layer # 3	gray	mastic	*no asbestos detected*		

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample M-VFT-001A **Lab Number** 2012-08688- 1 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	99	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-001B **Lab Number** 2012-08688- 2 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-001C **Lab Number** 2012-08688- 3 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-CBM-002A **Lab Number** 2012-08688- 4 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	brown	1	n.d.	-	-	-	-	-
2	mastic	2	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-002B **Lab Number** 2012-08688- 5 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	brown	1	n.d.	-	-	-	-	-
2	mastic	2	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-002C **Lab Number** 2012-08688- 6 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	brown	1	n.d.	-	-	-	-	-
2	mastic	2	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-003A **Lab Number** 2012-08688- 7 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	blue	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-003B **Lab Number** 2012-08688- 8 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	blue	1	n.d.	n.d.	-	-	-	-
2	mastic	2	off-white	1	n.d.	n.d.	-	-	-	-
3	mastic	1	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	-	-	-	-
				Fiber Identification:	talc and transitional	non-fibrous tremolit				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	gb/dr	w/b	1.601	<1.60
2	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	gb/dr	1.619	1.601
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CBM-003C **Lab Number** 2012-08688- 9 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	blue	1	n.d.	n.d.	n.d.	-	-	-
2	mastic	2	off-white	1	n.d.	n.d.	n.d.	-	-	-
3	mastic	1	brown	1	<=1%	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	<=1%	-	-	-

Fiber Identification: talc and transitional | non-fibrous tremolit | cellulose fiber

	Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	gb/dr	w/b	1.601	<1.60
2	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	gb/dr	1.619	1.601
3	cellulose fiber	W	F	N	N	H	+	U					
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CBM-004A **Lab Number** 2012-08688- 10 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	off-white	1	n.d.	-	-	-	-	-
3	mastic	1	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-

Fiber Identification: none

	Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-004B **Lab Number** 2012-08688- 11 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-004C **Lab Number** 2012-08688- 12 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CPT-005A **Lab Number** 2012-08688- 13 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	93	various	1	80-90%	-	-	-	-	-
2	mastic	7	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-005B **Lab Number** 2012-08688- 14 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	80-90%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	80-90%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-005C **Lab Number** 2012-08688- 15 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	80-90%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	80-90%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-006A **Lab Number** 2012-08688- 16 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	100	various	1	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps.

Sample M-CPT-006B **Lab Number** 2012-08688- 17 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-006C **Lab Number** 2012-08688- 18 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WS-007A **Lab Number** 2012-08688- 19 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	n.d.	-	-	-
2	texture/joint compound	1	white	3	<=1%	n.d.	n.d.	-	-	-
3	paper/cardboard	5	tan	2	n.d.	90-100%	n.d.	-	-	-
4	drywall core	93	white	3	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	5-10%	<=1%	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber	glass fiber			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2	cellulose fiber	W	F	N	N	H	+	U					
3	glass fiber	CL	D	Y									
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Point Count: Layer Number 2; 2 asbestos counts per 400 total counts = .5 percent.

Sample M-WS-007B **Lab Number** 2012-08688- 20 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	n.d.	-	-	-
2	texture/joint compound	1	white	3	<=1%	n.d.	n.d.	-	-	-
3	paper/cardboard	5	tan	2	n.d.	90-100%	n.d.	-	-	-
4	drywall core	93	white	3	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	5-10%	<=1%	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber	glass fiber			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2	cellulose fiber	W	F	N	N	H	+	U					
3	glass fiber	CL	D	Y									
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Point Count: Layer Number 2; 2 asbestos counts per 400 total counts = .5 percent.

Sample M-WS-007C **Lab Number** 2012-08688- 21 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	n.d.	-	-	-
2	texture/joint compound	1	white	3	<=1%	n.d.	n.d.	-	-	-
3	paper/cardboard	5	tan	2	n.d.	90-100%	n.d.	-	-	-
4	drywall core	93	white	3	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	5-10%	<=1%	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber	glass fiber			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2	cellulose fiber	W	F	N	N	H	+	U					
3	glass fiber	CL	D	Y									
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Point Count: Layer Number 2; 1 asbestos counts per 400 total counts = .25 percent.

Sample M-CONC-008A **Lab Number** 2012-08688- 22 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): powder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CONC-008B **Lab Number** 2012-08688- 23 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	90	off-white	1	n.d.	-	-	-	-	-
2	concrete	10	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CONC-008C **Lab Number** 2012-08688- 24 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-ACP-009A **Lab Number** 2012-08688- 25 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	98	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-009B **Lab Number** 2012-08688- 26 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	98	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-009C **Lab Number** 2012-08688- 27 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	98	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-010A **Lab Number** 2012-08688- 28 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACP-010B **Lab Number** 2012-08688- 29 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACP-010C **Lab Number** 2012-08688- 30 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACP-010D **Lab Number** 2012-08688- 31 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACT-011A **Lab Number** 2012-08688- 32 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 5 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	83	off-white	3	10-20%	10-20%	-	-	-	-
3	mastic	11	brown		n.d.	n.d.	-	-	-	-
4	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
5	plaster	3	off-white	2	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACT-011B **Lab Number** 2012-08688- 33 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	85	off-white	3	10-20%	10-20%	-	-	-	-
3	mastic	12	brown		n.d.	n.d.	-	-	-	-
4	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
	Total %	100	**Overall %**		10-20%	10-20%	-	-	-	-
			Fiber Identification:		cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACT-011C **Lab Number** 2012-08688- 34 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	85	off-white	3	10-20%	10-20%	-	-	-	-
3	mastic	12	brown		n.d.	n.d.	-	-	-	-
4	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
	Total %	100	**Overall %**		10-20%	10-20%	-	-	-	-
			Fiber Identification:		cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-CPT-012A **Lab Number** 2012-08688- 35 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-012B **Lab Number** 2012-08688- 36 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-012C **Lab Number** 2012-08688- 37 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WS-013A **Lab Number** 2012-08688- 38 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	98	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-013B **Lab Number** 2012-08688- 39 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	68	white	2	n.d.	-	-	-	-	-
3	plaster (scratch coat)	30	off-white	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-013C **Lab Number** 2012-08688- 40 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	paper/cardboard	8	tan	2	90-100%	-	-	-	-	-
3	plaster (top coat)	90	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-CPT-014A **Lab Number** 2012-08688- 41 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-014B **Lab Number** 2012-08688- 42 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-014C **Lab Number** 2012-08688- 43 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	100	various	1	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CBM-015A **Lab Number** 2012-08688- 44 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	black	1	n.d.	-	-	-	-	-
2	mastic	1	off-white	1	n.d.	-	-	-	-	-
3	mastic	1	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-015B **Lab Number** 2012-08688- 45 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	0.5	blue	1	n.d.	-	-	-	-	-
2	base cove	98	black	1	n.d.	-	-	-	-	-
3	mastic	1.5	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-015C **Lab Number** 2012-08688- 46 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	blue	1	n.d.	-	-	-	-	-
2	base cove	97	black	1	n.d.	-	-	-	-	-
3	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-PAR-016A **Lab Number** 2012-08688- 47 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): polymer, wood,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	polymer	7	yellow	1	n.d.	-	-	-	-	-
2	mastic	3	black	1	2-5%	-	-	-	-	-
3	cork	35	brown	2	n.d.	-	-	-	-	-
4	wood	55	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	pb/r	1.561	1.549
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-PAR-016B **Lab Number** 2012-08688- 48 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): polymer, wood,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	polymer	7	yellow	1	n.d.	-	-	-	-	-
2	mastic	3	black	1	2-5%	-	-	-	-	-
3	cork	35	brown	2	n.d.	-	-	-	-	-
4	wood	55	tan	1	n.d.	-	-	-	-	-
	Total %	100	**Overall %**		<=1%	-	-	-	-	-
			Fiber Identification:		chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	pb/r	1.561	1.549
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-PAR-016C **Lab Number** 2012-08688- 49 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): polymer, wood,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	polymer	7	yellow	1	n.d.	-	-	-	-	-
2	mastic	3	black	1	2-5%	-	-	-	-	-
3	cork	35	brown	2	n.d.	-	-	-	-	-
4	wood	55	tan	1	n.d.	-	-	-	-	-
	Total %	100	**Overall %**		<=1%	-	-	-	-	-
			Fiber Identification:		chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	pb/r	1.561	1.549
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CFT-017A **Lab Number** 2012-08688- 50 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	blue	1	n.d.	-	-	-	-	-
2	grout	5	white	2	n.d.	-	-	-	-	-
3	mortar	5	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CFT-017B **Lab Number** 2012-08688- 51 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	77	blue	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
3	mortar	15	gray	1	n.d.	-	-	-	-	-
4	leveling compound	3	off-white	3	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CFT-017C **Lab Number** 2012-08688- 52 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	blue	1	n.d.	-	-	-	-	-
2	mortar	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CWT-018A **Lab Number** 2012-08688- 53 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 5 **Pos Layer?** Yes **# Sub-Samples** 15

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	79	white	1	n.d.	n.d.	-	-	-	-
2	grout	5	white	2	n.d.	n.d.	-	-	-	-
3	mortar	5	gray	1	n.d.	n.d.	-	-	-	-
4	leveling compound	10	off-white	3	n.d.	n.d.	-	-	-	-
5	mastic	1	black	1	2-5%	>1-2%	-	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	chrysotile asbestos				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CWT-018B **Lab Number** 2012-08688- 54 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 12

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	91	white	1	n.d.	-	-	-	-	-
2	grout	5	white	2	n.d.	-	-	-	-	-
3	mortar	3	gray	1	n.d.	-	-	-	-	-
4	mastic	1	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CWT-018C **Lab Number** 2012-08688- 55 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	98	white	1	n.d.	-	-	-	-	-
2	mortar	2	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-WS-019A **Lab Number** 2012-08688- 56 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-019B **Lab Number** 2012-08688- 57 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-019C **Lab Number** 2012-08688- 58 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-019D **Lab Number** 2012-08688- 59 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CS-020A **Lab Number** 2012-08688- 60 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CS-020B **Lab Number** 2012-08688- 61 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CS-020C **Lab Number** 2012-08688- 62 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-ACT-021A **Lab Number** 2012-08688- 63 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	60	yellow	3	90-100%	n.d.	-	-	-	-
3	mastic	37	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACT-021B **Lab Number** 2012-08688- 64 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	42	yellow	3	90-100%	n.d.	-	-	-	-
3	mastic	55	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	40-50%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACT-021C **Lab Number** 2012-08688- 65 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	55	yellow	3	90-100%	n.d.	-	-	-	-
3	mastic	43	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACP-023A **Lab Number** 2012-08688- 66 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	80	tan	3	90-100%	-	-	-	-	-
3	glue	18	brown	1	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACP-023B **Lab Number** 2012-08688- 67 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	82	tan	3	90-100%	-	-	-	-	-
3	glue	15	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	80-90%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACP-023C **Lab Number** 2012-08688- 68 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	72	tan	3	90-100%	-	-	-	-	-
3	glue	25	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-VFT-024A **Lab Number** 2012-08688- 69 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	48	blue	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	floor tile	50	off-white	1	n.d.	-	-	-	-	-
4	mastic	1	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-024B **Lab Number** 2012-08688- 70 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	53	blue	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	floor tile	45	off-white	1	n.d.	-	-	-	-	-
4	mastic	1	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-024C **Lab Number** 2012-08688- 71 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	55	blue	1	n.d.	-	-	-	-	-
2	mastic	3	yellow	1	n.d.	-	-	-	-	-
3	floor tile	40	off-white	1	n.d.	-	-	-	-	-
4	mastic	2	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-ACP-025A **Lab Number** 2012-08688- 72 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, binder, metal

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2.5	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	96	yellow	3	90-100%	n.d.	-	-	-	-
3	paper/cardboard	0.5	tan	2	n.d.	90-100%	-	-	-	-
4	foil	1	silver	1	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	90-100%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-025B **Lab Number** 2012-08688- 73 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, binder, metal

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	96	yellow	3	90-100%	n.d.	-	-	-	-
3	paper/cardboard	0.5	tan	2	n.d.	90-100%	-	-	-	-
4	foil	1.5	silver	1	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	90-100%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-025C **Lab Number** 2012-08688- 74 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, binder, metal

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2.5	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	96	yellow	3	90-100%	n.d.	-	-	-	-
3	paper/cardboard	0.5	tan	2	n.d.	90-100%	-	-	-	-
4	foil	1	silver	1	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	90-100%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-LIN-026A **Lab Number** 2012-08688- 75 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): polymer, filler, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sheet flooring surface	70	various	1	n.d.	n.d.	n.d.	-	-	-
2	sheet flooring backing	28	off-white	3	30-40%	2-5%	n.d.	-	-	-
3	mastic	2	tan	1	<=1%	n.d.	<=1%	-	-	-
	Total %	100		**Overall %**	5-10%	>1-2%	<=1%	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber	chrysotile asbestos			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of vinyl matrix using solvent.

Sample M-LIN-026B **Lab Number** 2012-08688- 76 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sheet flooring surface	70	various	1	n.d.	n.d.	-	-	-	-
2	sheet flooring backing	25	off-white	3	30-40%	2-5%	-	-	-	-
3	mastic	5	yellow	1	<=1%	n.d.	-	-	-	-
	Total %	100		**Overall %**	5-10%	>1-2%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of vinyl matrix using solvent.

Sample M-LIN-026C **Lab Number** 2012-08688- 77 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): polymer, filler, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mastic	4	tan	1	2-5%	-	-	-	-	-
2	sheet flooring surface	75	various	1	n.d.	-	-	-	-	-
3	sheet flooring backing	20	off-white	3	30-40%	-	-	-	-	-
4	mastic	1	tan	1	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of vinyl matrix using solvent.

Sample M-CBM-027A **Lab Number** 2012-08688- 78 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	96	purple	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	<=1%	-	-	-	-	-
3	mastic	2	yellow	1	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-027B **Lab Number** 2012-08688- 79 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	purple	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-027C **Lab Number** 2012-08688- 80 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	purple	1	n.d.	n.d.	-	-	-	-
2	mastic	2	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	-	-	-	-
				Fiber Identification:	talc and transitional	non-fibrous tremolit				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	sb/o	w/b	1.607	<1.60
2	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	sb/o	1.619	1.607
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CBM-028A **Lab Number** 2012-08688- 81 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	gray	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-028B **Lab Number** 2012-08688- 82 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	gray	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-028C **Lab Number** 2012-08688- 83 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	gray	1	n.d.	-	-	-	-	-
2	mastic	3	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-VFT-030A **Lab Number** 2012-08688- 84 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	green	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-030B **Lab Number** 2012-08688- 85 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	97	green	1	5-10%	-	-	-	-	-
2	mastic	3	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-030C **Lab Number** 2012-08688- 86 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	97	green	1	5-10%	-	-	-	-	-
2	mastic	3	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-030D **Lab Number** 2012-08688- 87 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	green	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-031A **Lab Number** 2012-08688- 88 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	tan	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-031B **Lab Number** 2012-08688- 89 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	tan	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-031C **Lab Number** 2012-08688- 90 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	99	tan	1	5-10%	-	-	-	-	-
2	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-WS-032A **Lab Number** 2012-08688- 91 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 5 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): powder, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	18	white	2	n.d.	-	-	-	-	-
3	plaster (scratch coat)	50	tan	2	>1-2%	-	-	-	-	-
4	paper/cardboard	5	tan	2	90-100%	-	-	-	-	-
5	drywall core	25	white	3	>1-2%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-032B **Lab Number** 2012-08688- 92 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	22	white	2	n.d.	-	-	-	-	-
3	plaster (scratch coat)	75	tan	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-032C **Lab Number** 2012-08688- 93 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	10	various	1	n.d.	-	-	-	-	-
2	stucco	90	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Procedure: dissolution of stucco matrix using acid.

Sample M-ACT-033A **Lab Number** 2012-08688- 94 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	-	-	-	-	-
2	acoustical tile	80	yellow	3	90-100%	-	-	-	-	-
3	glue	18	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACT-033B **Lab Number** 2012-08688- 95 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	60	yellow	3	90-100%	n.d.	-	-	-	-
3	glue	18	tan	1	n.d.	n.d.	-	-	-	-
4	glue	20	brown	1	n.d.	>1-2%	-	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	wollastonite				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	wollastonite	W	G	N	N	M	B	P					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACT-033C **Lab Number** 2012-08688- 96 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	n.d.	n.d.	-	-	-
2	acoustical tile	60	yellow	3	90-100%	n.d.	n.d.	-	-	-
3	glue	18	tan	1	n.d.	n.d.	n.d.	-	-	-
4	glue	20	brown	1	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	<=1%	-	-	-
				Fiber Identification:	glass fiber	talc and transitional	non-fibrous tremolit			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	sb/o	w/b	1.607	<1.60
3	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	sb/o	1.619	1.607
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CFT-034A **Lab Number** 2012-08688- 97 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mastic	3	black	1	5-10%	-	-	-	-	-
2	ceramic	50	tan	1	n.d.	-	-	-	-	-
3	mortar	47	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent. No grout.

Sample M-CFT-034B **Lab Number** 2012-08688- 98 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mastic	0.5	black	1	5-10%	-	-	-	-	-
2	ceramic	75	tan	1	n.d.	-	-	-	-	-
3	mortar	24.5	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent. No grout.

Sample M-CFT-034C **Lab Number** 2012-08688- 99 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	65	tan	1	n.d.	-	-	-	-	-
2	mortar	35	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent. No grout. Note: A black mastic was present but was too thin to analyze. Mortar may have been grout on all three samples.

Sample M-CWT-035A **Lab Number** 2012-08688- 100 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	off-white	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
3	ceramic	15	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent.

Sample M-CWT-035B **Lab Number** 2012-08688- 101 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	off-white	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent.

Sample M-CWT-035C **Lab Number** 2012-08688- 102 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	off-white	1	n.d.	-	-	-	-	-
2	grout	10	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent.

Sample M-CAULK-037A **Lab Number** 2012-08688- 103 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	5	off-white	1	n.d.	-	-	-	-	-
2	sealant	95	clear	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent.

Sample M-CAULK-037B **Lab Number** 2012-08688- 104 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	5	off-white	1	n.d.	-	-	-	-	-
2	sealant	65	clear	1	n.d.	-	-	-	-	-
3	sealant	30	black	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent.

Sample M-CAULK-037C **Lab Number** 2012-08688- 105 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CFT-038A **Lab Number** 2012-08688- 106 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	off-white	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-038B **Lab Number** 2012-08688- 107 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	off-white	1	n.d.	-	-	-	-	-
2	grout	10	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-038C **Lab Number** 2012-08688- 108 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	off-white	1	n.d.	-	-	-	-	-
2	grout	20	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-ROOF-039A **Lab Number** 2012-08688- 109 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	85	black	1	10-20%	-	-	-	-	-
2	plaster	15	tan	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	10-20%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Procedure: dissolution of matrix using dilute HCl acid. Note: unable to determine exact layer number and sequence. Note: sample was a mixture of several roofing elements; similar pieces were analyzed as single roofing layers.

Sample M-ROOF-039B **Lab Number** 2012-08688- 110 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	97	black	1	20-30%	-	-	-	-	-
2	plaster	3	tan	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	20-30%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Procedure: dissolution of matrix using dilute HCl acid. Note: unable to determine exact layer number and sequence. Note: sample was a mixture of several roofing elements; similar pieces were analyzed as single roofing layers.

Sample M-ROOF-039C **Lab Number** 2012-08688- 111 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	90	black	1	10-20%	<=1%	-	-	-	-
2	plaster	10	tan	2	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	10-20%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Procedure: dissolution of matrix using dilute HCl acid. Note: unable to determine exact layer number and sequence. Note: sample was a mixture of several roofing elements; similar pieces were analyzed as single roofing layers.

Sample M-WS-041A **Lab Number** 2012-08688- 112 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	2	white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	90	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Texture was too thin for an accurate analysis.

Sample M-WS-041B **Lab Number** 2012-08688- 113 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	5	white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	88	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-041C **Lab Number** 2012-08688- 114 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	8	white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	85	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CWT-042A **Lab Number** 2012-08688- 115 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	85	white	1	n.d.	-	-	-	-	-
2	grout	15	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Surface of tile was green. No mortar.

Sample M-CWT-042B **Lab Number** 2012-08688- 116 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	70	white	1	n.d.	-	-	-	-	-
2	grout	30	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Surface of tile was green. No mortar.

Sample M-CWT-042C **Lab Number** 2012-08688- 117 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	70	white	1	n.d.	-	-	-	-	-
2	grout	30	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Surface of tile was white. No mortar.

Sample M-CFT-043A **Lab Number** 2012-08688- 118 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	tan	1	n.d.	-	-	-	-	-
2	grout	20	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-043B **Lab Number** 2012-08688- 119 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	tan	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-043C **Lab Number** 2012-08688- 120 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	tan	1	n.d.	-	-	-	-	-
2	grout	10	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-044A **Lab Number** 2012-08688- 122 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	85	tan	1	n.d.	-	-	-	-	-
2	grout	15	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-044B **Lab Number** 2012-08688- 123 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	tan	1	n.d.	-	-	-	-	-
2	grout	20	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-044C **Lab Number** 2012-08688- 124 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	85	tan	1	n.d.	-	-	-	-	-
2	grout	15	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-WG-045A **Lab Number** 2012-08688- 125 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5
Non-Fibrous Components (in approx. decreasing order): powder, filler, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	-	-	-	-	-
2	putty	98	gray	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	sb/o	gb/dr	1.553	1.545
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WG-045B **Lab Number** 2012-08688- 126 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5
Non-Fibrous Components (in approx. decreasing order): powder, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	8	white	2	n.d.	-	-	-	-	-
2	putty	92	gray	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	sb/o	gb/dr	1.553	1.545
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WG-045C **Lab Number** 2012-08688- 127 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5
Non-Fibrous Components (in approx. decreasing order): powder, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	3	white	2	n.d.	-	-	-	-	-
2	putty	97	gray	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	sb/o	gb/dr	1.553	1.545
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CFT-046A **Lab Number** 2012-08688- 128 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): ceramic, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	55	green	1	n.d.	-	-	-	-	-
2	tile	45	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: there appears to be more than one sample layer sequence in the bag (e.g., samples from more than one location); therefore, the reported layer sequence has been estimated/composited.

Sample M-CFT-046B **Lab Number** 2012-08688- 129 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	85	tan	1	n.d.	-	-	-	-	-
2	grout	7	gray	2	<=1%	-	-	-	-	-
3	mortar	8	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample M-CFT-046C **Lab Number** 2012-08688- 130 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	88	tan	1	n.d.	-	-	-	-	-
2	grout	12	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample M-CWT-047A **Lab Number** 2012-08688- 131 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 6 **Pos Layer?** No **# Sub-Samples** 12

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	55	white	1	n.d.	-	-	-	-	-
2	grout	7	off-white	2	n.d.	-	-	-	-	-
3	mortar	7	off-white	1	n.d.	-	-	-	-	-
4	tile	25	green	1	n.d.	-	-	-	-	-
5	grout	3	off-white	2	n.d.	-	-	-	-	-
6	mastic	3	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: there appears to be more than one sample layer sequence in the bag (e.g., samples from more than one location); therefore, the reported layer sequence has been estimated/composited.

Sample M-CWT-047B **Lab Number** 2012-08688- 132 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 6 **Pos Layer?** No **# Sub-Samples** 12

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	45	white	1	n.d.	-	-	-	-	-
2	grout	5	off-white	2	n.d.	-	-	-	-	-
3	mortar	5	off-white	1	n.d.	-	-	-	-	-
4	tile	30	green	1	n.d.	-	-	-	-	-
5	grout	10	off-white	2	n.d.	-	-	-	-	-
6	mastic	5	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: there appears to be more than one sample layer sequence in the bag (e.g., samples from more than one location); therefore, the reported layer sequence has been estimated/composited.

Sample M-CWT-047C **Lab Number** 2012-08688- 133 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	90	white	1	n.d.	-	-	-	-	-
2	grout	5	off-white	2	n.d.	-	-	-	-	-
3	mortar	5	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Minor adhering wall materials, paint and/or texture, etc. were not analyzed.

Sample M-CBM-048A **Lab Number** 2012-08688- 134 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	green	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-048B **Lab Number** 2012-08688- 135 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	green	1	n.d.	-	-	-	-	-
2	mastic	3	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-048C **Lab Number** 2012-08688- 136 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	green	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CERCBM-049A **Lab Number** 2012-08688- 137 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	tan	1	n.d.	-	-	-	-	-
2	grout	10	off-white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CERCBM-049B **Lab Number** 2012-08688- 138 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	92	tan	1	n.d.	-	-	-	-	-
2	grout	5	off-white	2	n.d.	-	-	-	-	-
3	mastic	3	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CERCBM-049C **Lab Number** 2012-08688- 139 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

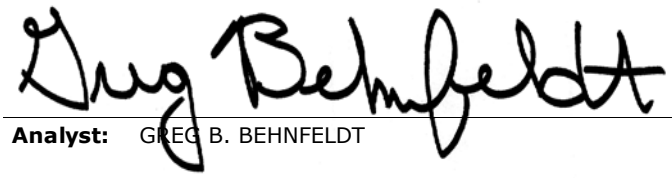
#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	94	tan	1	n.d.	-	-	-	-	-
2	grout	3	off-white	2	n.d.	-	-	-	-	-
3	mastic	3	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

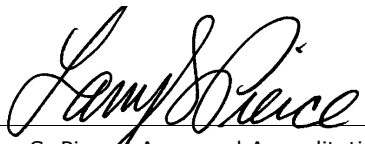
Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber



Analyst: GREG B. BEHNFELDT

Printed: 14-Sep-12

Original Print Date: 14-Sep-12



Larry S. Pierce, Approved Accreditation Signatory

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Strata, Inc.	
Address 8653 W Hackamore Drive	
City, State, Zip Code Boise, ID 83704	
Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
	Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐				
	Single Layer Protocol: Yes ☐ No ☐				
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐	<6 hrs ☐		1-2 days ☐	N/A
	ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐				
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (Include asbestos type/manufacturer, Date)	Sample Date	Sample Time	Vol/Area
1) M-VFT-001A	12"x12" Vinyl Floor Tile, Beige/Brown	9-5-12	—	—
2) ↓ 001B	"			
3) ↓ 001C	"			
4) M-CBM-002A	4" Cove Base + Mastic (Brown)			
5) ↓ 002B	"			
6) ↓ 002C	"			
7) M-CBM-003A	4" Cove Base + Mastic (Blue)			
8) ↓ 003B	"			
9) ↓ 003C	"			
10) M-CBM-004A	4" Cove Base + Mastic (DK Beige)			
11) ↓ 004B	"			
12) ↓ 004C	"			
13) M-CPT-005A	Blue Carpet + Mastic			
14) M-CPT-005B	"			
15) M-CPT-005C	"			
16) M-CPT-006A	Brown Carpet + Mastic			
17) ↓ 006B	"			
18) ↓ 006C	"			
19) M-WS-007A	Gipsum Wall System (Smooth)			
20) ↓ -007B	"			

1)Relinquished by:	Date: 9-10-12	Time: 0850	3)Relinquished by:	Date:	Time:
2)Received by: Kathy Knowles	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name	F/x		Page 1 of 8	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

20120868 K

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company)	Strata, Inc.
Address	8653 W Hackamore Drive
City, State, Zip Code	Boise, ID 83704
Phone 208-376-8200	FAX 208-376-8201
Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include agar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-WS-007C	Gypsum Wall System (Smooth)	9-5-12	—	—
2) M-CONC-008A	Concrete Wall System (Sandy)			
3) 008B	"			
4) 008C	"			
5) M-ACP-009A	2'x8' Ceiling Panels (Spagetti)			
6) 009B	"			
7) 009C	"			
8) M-ACP-010A	2'x4' Acoustic Ceiling Tiles (Pinhole)			
9) 010B	"			
10) 010C	"			
11) 010D	1'x1' Acoustic Ceiling Tile (Deep-fissure)			
12) M-ACT-011A	"			
13) 011B	"			
14) 011C				
15) M-CPT-012A	Gray Carpet + Mastic			
16) 012B	"			
17) 012C	"			
18) M-WS-013A	Gypsum Wall System (Sandy)			
19) 013B	"			
20) 013C	"			

1)Relinquished by:	Date: 9-10-12	Time: 0850	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Review of Analysis Request (Initials) _____

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201208688 Yes

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City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include asgr type(maker)exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CPT-014A	Blue / Gray Carpet + Mastic	9-5-12	—	—
2) 014B	"			
3) 014C	"			
4) M-CBM-015A	4" Cove Base + Mastic			
5) 015B	"			
6) 015C	"			
7) M-PAR-016A	Parquet flooring			
8) 016B	"			
9) 016C	"			
10) M-CPT-017A	2" x 2" Blue Ceramic Tile			
11) 017B	"			
12) 017C	"			
13) M-CWT-018A	4" x 4" + 2" x 2" White + Blue Ceramic			
14) 018B	" Tiles			
15) 018C	"			
16) M-WS-019A	Gypsum Wall System, White Orange Peel			
17) 019B	"			
18) 019C	"			
19) 019D	"			
20) M-CS-020A	~~Ceiling Surfacing~~ Gypsum Wall System, Heath Knock Down			

1)Relinquished by:	Date: 9-10-12	Time: 0851	3)Relinquished by:	Date:	Time:
2)Received by	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name			Page 3 of 8	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208688

FIBERQUANT ANALYTICAL SERVICES

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Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include agar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CS-020B	Gypsum Surfacing (Heavy Knock Down)	9-5-12	—	—
2) ↓ 020C	"			
3) M-ACT-021A	1'x1' Acoustic Ceiling Tile (Even Spray Grid)			
4) ↓ 021B	"			
5) ↓ 021C	"			
6) M-CPT-022A	Light Brown Carpet			
7) ↓ 022B	No Sample			
8) ↓ 022C				
9) M-ACP-023A	1'x1' White Acoustic Ceiling Tile			
10) ↓ 023B	" (Computer Grid)			
11) ↓ 023C	"			
12) M-VFT-024A	Vinyl Floor Tile, White/Blue + Mastic			
13) ↓ 024B	"			
14) ↓ 024C	"			
15) M-ACP-025A	2'x4' Acoustic Ceiling Tile (Smooth)			
16) ↓ 025B	"			
17) ↓ 025C	"			
18) M-LIN-026A	Beige/Gray Linoleum Flooring			
19) ↓ 026B	"			
20) ↓ 026C	"			

1)Relinquished by:	Date: 9-10-12	Time: 0851	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208688

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
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Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include spar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CBM-027A	Brownish/Pink Cove Base & Mastic	9-5-12	—	—
2) ↓ 027B	"			
3) ↓ 027C	"			
4) M-CBM-028A	4" Cove Base & Mastic, Light Gray			
5) ↓ 028B	"			
6) ↓ 028C	"			
7) M-GN-029A	No Sample			
8) ↓ 029B				
9) ↓ 029C				
10) M-VFT-030A	9"x9" Vinyl Floor Tile, Green			
11) ↓ 030B	"			
12) ↓ 030C	"			
13) M-VFT-030D	9"x9" Vinyl Floor Tile, Beige			
14) M-VFT-031A	"			
15) ↓ 031B	"			
16) ↓ 031C	"			
17) M-WS-032A	Gypsum Wall System, Sandy Texture			
18) ↓ 032B	"			
19) ↓ 032C	"			
20) M-ACT-033A	1'x1' Acoustic Ceiling Tile, Smooth & Mastic			

1)Relinquished by:	Date: 9-10-12	Time: 0851	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name			Page 5 of 8	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208688

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Strata, Inc.	
Address 8653 W Hackamore Drive	
City, State, Zip Code Boise, ID 83704	
Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Alter ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include asar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-ACT-033B	1'x1' Acoustic Ceiling Tile, Smooth & Mastic	9-5-12	—	—
2) ↓ 033C	"			
3) M-CFT-034A	6"x6" Beige Brown, Ceramic Tiles			
4) ↓ 034B	"			
5) ↓ 034C	"			
6) M-CWT-035A	1"x1" Mult-beige, Ceramic Tile			
7) ↓ 035B	"			
8) ↓ 035C	"			
~~9) 036A~~	GB			
~~10) 036B~~	GB			
~~11) 036C~~	GB			
12) M-CAULK-037A	Caulk, Grey			
13) ↓ 037B	"			
14) ↓ 037C	"			
15) M-CFT-038A	1"x1" Multi-Colored Ceramic Tile			
16) ↓ 038B	"			
17) ↓ 038C	"			
18) M-ROOF 039A	Marven Roofing Paper + Tar			
19) ↓ 039B	"			
20) ↓ 039C	"			

1)Relinquished by:	Date 9-10-12	Time 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Page 6 of 8

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

20120868 ks

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company)	Strata, Inc.
Address	8653 W Hackamore Drive
City, State, Zip Code	Boise, ID 83704
Phone 208-376-8200	FAX 208-376-8201
Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☑	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include pair type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-ACP 040A	2'x4' Acoustic Ceiling Panel, Fabric			
2) 040B	No Sample			
3) 040C				
4) M-WS- 041A	Gipsum Wall System, Smooth	9-5-12	—	—
5) 041B	"			
6) 041C	"			
7) M-CWT- 042A	LT Green, Ceramic Subway Tile			
8) 042B	"			
9) 042C	"			
10) M-CFT- 043A	1"x1" Octagonal Ceramic Floor Tile			
11) 043B	"			
12) 043C	"			
13) M-ACP- 040D	"			
14) M-CFT- 044A	2"x2" Brown Ceramic Floor Tile			
15) 044B	"			
16) 044C	"			
17) M-~~CWT~~ WG- 045A	Window Glazing			
18) WG 045B	"			
19) WG 045C	"			
20) M-CFT- 046A	12"x12" Beige + Green Ceramic Tiles			

1)Relinquished by:	Date: 9-10-12	Time: 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

20120 8688

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company)	Strata, Inc.
Address	8653 W Hackamore Drive
City, State, Zip Code	Boise, ID 83704
Phone 208-376-8200	FAX 208-376-8201
Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include agar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CFT-046B	2"x2" Beige & Green Ceramic Tiles	9-5-12	—	—
2) ↓ 046C	"			
3) M-CWT-047A	4"x4" White & Green Ceramic Tile			
4) 047B	"			
5) ↓ 047C	"			
6) M-CBM-048A	4" Green Cove Base & Mastic			
7) 048B	"			
8) ↓ 048C	"			
9) M-CERCBM-049A	4"x4" / 1"x1" Beige Ceramic Tiles			
10) 049B	"			
11) ↓ 049C	"			
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				

1)Relinquished by:	Date: 9-10-12	Time: 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9/11/12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Page 8 of 8

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

261208688

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

September 19, 2012

Cristina Brischler
Strata
8653 W Hackamore Drive
Boise, ID 83709

RE: Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Dear Cristina Brischler:
Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle Hubbling

michelle.hubbling@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10204955001	**M-Caulk-037-PCB**	EPA 8082	KL1	11	PASI-M

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Sample: M-Caulk-037-PCB **Lab ID: 10204955001** Collected: 09/06/12 00:00 Received: 09/11/12 09:55 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Soxtherm	Analytical Method: EPA 8082 Preparation Method: EPA 3541							
PCB-1016 (Aroclor 1016)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**868000**	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11096-82-5	
PCB-1262 (Aroclor 1262)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	37324-23-5	
PCB-1268 (Aroclor 1268)	ND	ug/kg	49500	100	09/11/12 13:43	09/18/12 13:27	11100-14-4	
Surrogates								
Tetrachloro-m-xylene (S)	0	%	30-150	100	09/11/12 13:43	09/18/12 13:27	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	100	09/11/12 13:43	09/18/12 13:27	2051-24-3	S4

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

QC Batch: OEXT/19644 Analysis Method: EPA 8082
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 10204955001

METHOD BLANK: 1284790 Matrix: Solid
Associated Lab Samples: 10204955001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1221 (Aroclor 1221)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1232 (Aroclor 1232)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1242 (Aroclor 1242)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1248 (Aroclor 1248)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1254 (Aroclor 1254)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1260 (Aroclor 1260)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1262 (Aroclor 1262)	ug/kg	ND	33.0	09/14/12 12:29	
PCB-1268 (Aroclor 1268)	ug/kg	ND	33.0	09/14/12 12:29	
Decachlorobiphenyl (S)	%	88	30-150	09/14/12 12:29	
Tetrachloro-m-xylene (S)	%	33	30-150	09/14/12 12:29	

LABORATORY CONTROL SAMPLE & LCSD: 1284791 1284792

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	667	633	616	95	92	65-125	3	20	
PCB-1260 (Aroclor 1260)	ug/kg	667	556	532	83	80	60-125	4	20	
Decachlorobiphenyl (S)	%				97	85	30-150			
Tetrachloro-m-xylene (S)	%				92	90	30-150			

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: GCSV/10127

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ON12030A QuinnColiseumBldSurv
Pace Project No.: 10204955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10204955001	**M-Caulk-037-PCB**	EPA 3541	OEXT/19644	EPA 8082	GCSV/10127

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Minneapolis, MN 55414
612-607-1700

1125 10204955

Page: 1 of 1

8 of 10

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Strata, Inc.	Report To:	Cristina Brischler	Attention:	same
Address:	8653 W Hackamore Drive	Copy To:		Company Name:	
	Boise, ID 83709 CB			Address:	
Email To:	cbrischler@stratageotech.com	Purchase Order No.:	ON12030A	Pace Quote Reference:	
Phone: 208-376-8200	Fax: 208-376-8201	Project Name:	Quinn Coliseum Building Survey	Pace Project Manager:	
Requested Due Date/TAT:	Normal	Project Number:	ON12030A	Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER _____

Site Location STATE: ~~CB~~ OR

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	Section D Required Client Information / SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test: PCB in caulk	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	M-CAULK-037-PCB ~~PCB~~ CB	~~WP~~ SL	G	~~3/29/12~~ 9/6/12 CB	NA	NA	NA	80	1	X								N	X		601
2	CB																				
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		9-10-12	0825		9/11/12	955	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cristina Brischler

SIGNATURE of SAMPLER: | DATE Signed (MM/DD/YY): 3/29/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: StrataA **Project #:** WO# : 10204955

10204955

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☐Pace ☐Other:

Tracking Number: 8254 6829 7685

Custody Seal on Cooler/Box Present? ☐Yes ☑No **Seals Intact?** ☐Yes ☐No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☑Bubble Bags ☐None ☐Other: **Temp Blank?** ☐Yes ☑No

Thermometer Used: ☑B88A912167504 ☐80512447 **Type of Ice:** ☐Wet ☐Blue ☐None ☐Samples on ice, cooling process has begun

Cooler Temperature: 0.8 **Biological Tissue Frozen?** ☐Yes ☐No **Date and Initials of Person Examining Contents:** 9/11/12 ch

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out?	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☑Yes	☐No	☐N/A	3.
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☑No	☐N/A	7.
Sufficient Volume?	☑Yes	☐No	☐N/A	8.
Correct Containers Used?	☑Yes	☐No	☐N/A	9. baggie
-Pace Containers Used?	☐Yes	☑No	☐N/A	
Containers Intact?	☑Yes	☐No	☐N/A	10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☑N/A	11.
Sample Labels Match COC?	☑Yes	☐No	☐N/A	12.
-Includes Date/Time/ID/Analysis Matrix: SL				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐Yes	☐No	☑N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH ☐HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐Yes	☐No	☑N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐Yes	☑No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐Yes	☐No	☑N/A	14.
Trip Blank Present?	☐Yes	☐No	☑N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 9/11/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical®	Document Name: Sample Container Count	Document Revised: 22Sept2011 Page 1 of 1
	Document No.: F-MN-C-090-Rev.00	Issuing Authority: Pace Minnesota Quality Office

Client: _____ **Project #:** _____

COC ID: _____ **COC Page** _____ of _____

Sample Line Item	~~DG9H~~ PB	AG1U	WGFU	JGFU	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	VG9M	VG9H	VG9U	Comments
1	1															
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

Container Codes:

DG9H	40mL HCL amber VOA vial	AF	Air Filter	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber glass	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved **amber** vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber glass	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber glass	BP3A	250mL NaOh, Asc Acid plastic	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved **clear** vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear glass	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

FIBERQUANT ANALYTICAL SERVICES

Atomic Absorption Spectrometer (AAS) Analysis of Paint

JobNumber: **201208687**

Client:

STRATA INC

8653 W HACKAMORE DR

BOISE, ID 83704-0000

Office Phone: (208) 376-8200

FAX: (208) 376-8201

 # Samples: 10 AA **Rec:** 9/11/2012 **Method:** Modified SW 846 3050b/7420 Pb in paint by weight AA Analysis

Client Job: Quinn Coliseum **PO Number:** ON12030A

Report Date: 9/13/2012 **Date Analyzed:** 9/13/2012 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** AApw

The received samples were analyzed for Pb (total) using "Test Methods for Evaluating Solid Waste" (SW 846, December 1996 updates). The extraction/digestion method was SW 3050b. The analytical method is "flame atomic absorption, direct aspiration", SW 7420.. Briefly the procedures are as follows. The incoming paint samples are first homogenized by mixing and crushing. A sub-sample is weighed to 0.0001 gm into a 50ml centrifuge tube. To the run stream are added the quality assurance samples described below. Six mls of concentrated HNO3 and one ml of 30% H2O2 are added to each container. The tubes are caped and heated for 1 hour at 95 deg. C. After cooling, the contents of the centrifuge tube are brought up to exactly 25 mls, completing the digestion/extraction.

The sample and quality assurance extractions are then analyzed on a TJA M5 flame atomic absorption spectrometer. The wavelengths and other instrumental settings are set according to the manufacturer's recommendations, or as otherwise specified in the published method. Absorptions are recorded from sample and standard solutions. A calibration curve is fitted to at least three standard solutions, and the concentrations of the sample extracts are calculated from the curve. The ppm (ug/gm) and weight percent for each sample is calculated from the sub-sample weight, extract volume, and extract concentration.

The results from this analysis is generally compared to either the HUD guidelines, in which a sample is positive if it contains >0.5% (5000 ppm) Pb, or the Consumer Products Safety Commission (CPSC) limit, in which a paint or surface coating containing greater than 90 ppm is defined as lead-containing. The expected coefficient of variation for this method is approximately 20-30%. The results are reported to two significant figures. The Sample Reporting Limit (RL) listed below is twice the Sample Detection Limit, which is calculated for each sample from the experimentally determined Method Detection Limit. The limit of reliable quantitatiion is generally regarded as five to ten times the limit of detection. Therefore, samples smaller than 0.1 gm may give results too near the CPSC standard to be reliable. Problems in analysis or other information is provided in the "Analytical Notes" below. Blanks, if analyzed, are treated the same as samples and are not used for correcting non-blank results.

The following on-going quality assurance program was followed to ensure reproducible and dependable results: All analysts are degreed chemists trained extensively in-house for at least six months prior to un-supervised runs. Blank matrix samples are analyzed at a rate of 5% (at least one per run). Reference standards are analyzed at a rate of 5% (at least one per run), and compared to statistical records via control charts. Spiked matrix samples are analyzed at a rate of 5% (at least one per run), and compared to statistical records via control charts. Duplicate samples are analyzed at a rate of 5% (at least one per run), and compared to statistical records via control charts. For each instrumental run, the spectrometer is checked for sensitivity and stability. The calibration standards are made fresh weekly, and checked each run against a calibration verification standard from another source. All calculations are performed twice - once in a calibration spreadsheet, and once during the report generation, and also checked by hand. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. Fiberquant participates in the Environmental Lead Proficiency Analytical Testing (ELPAT) program, is accredited by AIHA-LAP, LLC for environmental lead in paint (Lab # 101593), and is recognized by the National Lead Laboratory Accreditation Program (NLLAP) for the analysis of Pb in paint. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Calibration Curve:

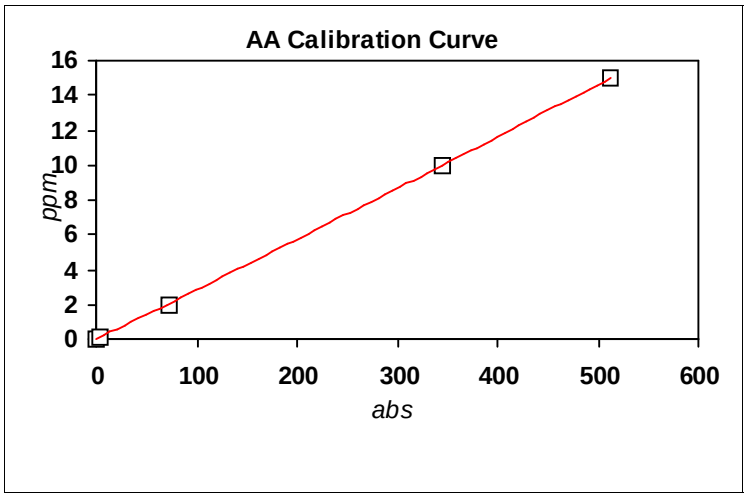
Pb

Run # 8814 ***9/13/2012***

Instrument: M5-2

Standards:	ppm	avg. mAbs.
1	0.13	3
2	2	73
3	10	344
4	15	513

ax2	0.00000186
bx	0.02832142
c	-0.00298
R2	0.9999466



Analysis Results:

Job Number:	201208687

AApw

Lab Number	Client Number	Date	Condition	Weight (gm)	ug/ml	ml	Dil	Analyte	wt %	ppm	RL(ppm)
2012-08687- 1	LBP-1	9/6/2012	acceptable	0.2026	5.30014	25	1	Pb	0.065	650	16
2012-08687- 2	LBP-2	9/6/2012	acceptable	0.2167	1.36073	25	50	Pb	0.78	7800	15
2012-08687- 3	LBP-3	9/6/2012	acceptable	0.2109	-0.003	25	1	Pb	<0.0015	<15	15
2012-08687- 4	LBP-4	9/6/2012	acceptable	0.2071	-0.003	25	1	Pb	<0.0016	<16	16
2012-08687- 5	LBP-5	9/6/2012	acceptable	0.2551	3.56626	25	50	Pb	1.7	17000	13
2012-08687- 6	LBP-6	9/6/2012	acceptable	0.2257	0.19536	25	1	Pb	0.0022	22	14
2012-08687- 7	LBP-7	9/6/2012	acceptable	0.2193	1.64592	25	1	Pb	0.019	190	15
2012-08687- 8	LBP-8	9/6/2012	acceptable	0.2035	1.70300	25	50	Pb	1	10000	16
2012-08687- 9	LBP-9	9/6/2012	acceptable	0.0931	2.70434	25	50	Pb	3.6	36000	35
2012-08687- 10	LBP-10	9/6/2012	acceptable	0.1692	0.84834	25	50	Pb	0.63	6300	19

Martin Esquer

Analyst: MARTIN A. ESQUER

Printed: 13-Sep-12

Original Print Date: 13-Sep-12

Larry S. Pierce

Larry S. Pierce, Approved Accreditation Signatory

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Strata, Inc.	
Address 8653 W Hackamore Drive	
City, State, Zip Code Boise, ID 83704	
Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☐ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☐	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☒ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☒	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (Include asar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) LBP-1	white wall paint	9/6/12		
2) LBP-2	White door paint			
3) LBP-3	dark blue door paint			
4) LBP-4	dark green concrete floor paint			
5) LBP-5	Sage green door paint			
6) LBP-6	lt. blue wall paint			
7) LBP-7	beige wall paint			
8) LBP-8	(yellow) door paint			
9) LBP-9	brown door jamb paint			
10) LBP-10	lt. green concrete wall paint	↓		
11)				
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				

1)Relinquished by:	Date: 9-10-12	Time: 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:42	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name F/X			Page 1 of 1	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208687

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos in Bulk Sample

JobNumber:	**201208688**

Client: **STRATA INC**

8653 W HACKAMORE DR

BOISE, ID 83704-0000

Office Phone: (208) 376-8200
FAX: (208) 376-8201

 # Samples: 139 PLM **Rec:** 9/11/2012 **Method:** EPA 600/R-93/116 The "New" Method; see below

Client Job: Quinn Coliseum **PO Number:** ON12030A

Report Date: 9/14/2012 **Date Analyzed:** 9/14/2012 **Routing Number:** -

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40CFT Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestiform asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

Sample # M-ACP-040D was listed on client chain-of-custody but later removed. This sample was mistakenly added to job but not received.

PLM Analysis Summary: **Job Number: 201208688** Quinn Coliseum

Sample Number / Layer	Color	Apparent Layer Type *	Lab Number	Apparent Sample Type * / *Asbestos Results*	Positive Layer Yes or No
Sample # **M-VFT-001A**			2012-08688- 1	Flooring	Positive Layer? Yes
Layer # 1	off-white	floor tile		*no asbestos detected*	
Layer # 2	black	mastic		*5-10% chrysotile asbestos*	
Sample # **M-VFT-001B**			2012-08688- 2	Flooring	Positive Layer? Yes
Layer # 1	off-white	floor tile		*no asbestos detected*	
Layer # 2	yellow	mastic		*no asbestos detected*	
Layer # 3	black	mastic		*5-10% chrysotile asbestos*	
Sample # **M-VFT-001C**			2012-08688- 3	Flooring	Positive Layer? Yes
Layer # 1	off-white	floor tile		*no asbestos detected*	
Layer # 2	yellow	mastic		*no asbestos detected*	
Layer # 3	black	mastic		*5-10% chrysotile asbestos*	
Sample # **M-CBM-002A**			2012-08688- 4	Miscellaneous	Positive Layer? No
Layer # 1	brown	base cove		*no asbestos detected*	
Layer # 2	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-002B**			2012-08688- 5	Miscellaneous	Positive Layer? No
Layer # 1	brown	base cove		*no asbestos detected*	
Layer # 2	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-002C**			2012-08688- 6	Miscellaneous	Positive Layer? No
Layer # 1	brown	base cove		*no asbestos detected*	
Layer # 2	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-003A**			2012-08688- 7	Miscellaneous	Positive Layer? No
Layer # 1	blue	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Sample # **M-CBM-003B**			2012-08688- 8	Miscellaneous	Positive Layer? No
Layer # 1	blue	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Layer # 3	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-003C**			2012-08688- 9	Miscellaneous	Positive Layer? No
Layer # 1	blue	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Layer # 3	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-004A**			2012-08688- 10	Miscellaneous	Positive Layer? No
Layer # 1	off-white	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Layer # 3	brown	mastic		*no asbestos detected*	
Sample # **M-CBM-004B**			2012-08688- 11	Miscellaneous	Positive Layer? No
Layer # 1	off-white	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Sample # **M-CBM-004C**			2012-08688- 12	Miscellaneous	Positive Layer? No
Layer # 1	off-white	base cove		*no asbestos detected*	
Layer # 2	off-white	mastic		*no asbestos detected*	
Sample # **M-CPT-005A**			2012-08688- 13	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	
Sample # **M-CPT-005B**			2012-08688- 14	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	
Sample # **M-CPT-005C**			2012-08688- 15	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	
Sample # **M-CPT-006A**			2012-08688- 16	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Sample # **M-CPT-006B**			2012-08688- 17	Carpet	Positive Layer? No
Layer # 1	various	carpet		*no asbestos detected*	
Layer # 2	tan	mastic		*no asbestos detected*	

Sample # **M-CPT-006C**			2012-08688- 18	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-WS-007A**			2012-08688- 19	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*<=1% chrysotile asbestos*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-007B**			2012-08688- 20	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*<=1% chrysotile asbestos*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-007C**			2012-08688- 21	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*<=1% chrysotile asbestos*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CONC-008A**			2012-08688- 22	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Sample # **M-CONC-008B**			2012-08688- 23	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	gray	concrete	*no asbestos detected*		
Sample # **M-CONC-008C**			2012-08688- 24	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Sample # **M-ACP-009A**			2012-08688- 25	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-009B**			2012-08688- 26	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-009C**			2012-08688- 27	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010A**			2012-08688- 28	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010B**			2012-08688- 29	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010C**			2012-08688- 30	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACP-010D**			2012-08688- 31	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Sample # **M-ACT-011A**			2012-08688- 32	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Layer # 4	off-white	paint	*no asbestos detected*		
Layer # 5	off-white	plaster	*no asbestos detected*		
Sample # **M-ACT-011B**			2012-08688- 33	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Layer # 4	off-white	paint	*no asbestos detected*		
Sample # **M-ACT-011C**			2012-08688- 34	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	off-white	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Layer # 4	off-white	paint	*no asbestos detected*		
Sample # **M-CPT-012A**			2012-08688- 35	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-012B**			2012-08688- 36	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-012C**			2012-08688- 37	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-WS-013A**			2012-08688- 38	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		

Sample # **M-WS-013B**			2012-08688- 39	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		
Layer # 3	off-white	plaster (scratch coat)	*no asbestos detected*		
Sample # **M-WS-013C**			2012-08688- 40	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	paper/cardboard	*no asbestos detected*		
Layer # 3	white	plaster (top coat)	*no asbestos detected*		
Sample # **M-CPT-014A**			2012-08688- 41	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-014B**			2012-08688- 42	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Layer # 2	tan	mastic	*no asbestos detected*		
Sample # **M-CPT-014C**			2012-08688- 43	Carpet	Positive Layer? No
Layer # 1	various	carpet	*no asbestos detected*		
Sample # **M-CBM-015A**			2012-08688- 44	Miscellaneous	Positive Layer? No
Layer # 1	black	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Layer # 3	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-015B**			2012-08688- 45	Miscellaneous	Positive Layer? No
Layer # 1	blue	paint	*no asbestos detected*		
Layer # 2	black	base cove	*no asbestos detected*		
Layer # 3	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-015C**			2012-08688- 46	Miscellaneous	Positive Layer? No
Layer # 1	blue	paint	*no asbestos detected*		
Layer # 2	black	base cove	*no asbestos detected*		
Layer # 3	off-white	mastic	*no asbestos detected*		
Sample # **M-PAR-016A**			2012-08688- 47	Flooring	Positive Layer? Yes
Layer # 1	yellow	polymer	*no asbestos detected*		
Layer # 2	black	mastic	*2-5% chrysotile asbestos*		
Layer # 3	brown	cork	*no asbestos detected*		
Layer # 4	tan	wood	*no asbestos detected*		
Sample # **M-PAR-016B**			2012-08688- 48	Flooring	Positive Layer? Yes
Layer # 1	yellow	polymer	*no asbestos detected*		
Layer # 2	black	mastic	*2-5% chrysotile asbestos*		
Layer # 3	brown	cork	*no asbestos detected*		
Layer # 4	tan	wood	*no asbestos detected*		
Sample # **M-PAR-016C**			2012-08688- 49	Flooring	Positive Layer? Yes
Layer # 1	yellow	polymer	*no asbestos detected*		
Layer # 2	black	mastic	*2-5% chrysotile asbestos*		
Layer # 3	brown	cork	*no asbestos detected*		
Layer # 4	tan	wood	*no asbestos detected*		
Sample # **M-CFT-017A**			2012-08688- 50	Miscellaneous	Positive Layer? No
Layer # 1	blue	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-017B**			2012-08688- 51	Miscellaneous	Positive Layer? No
Layer # 1	blue	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Layer # 4	off-white	leveling compound	*no asbestos detected*		
Sample # **M-CFT-017C**			2012-08688- 52	Miscellaneous	Positive Layer? No
Layer # 1	blue	ceramic	*no asbestos detected*		
Layer # 2	gray	mortar	*no asbestos detected*		
Sample # **M-CWT-018A**			2012-08688- 53	Miscellaneous	Positive Layer? Yes
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Layer # 4	off-white	leveling compound	*no asbestos detected*		
Layer # 5	black	mastic	*>1-2% chrysotile asbestos*		
Sample # **M-CWT-018B**			2012-08688- 54	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-CWT-018C**			2012-08688- 55	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	gray	mortar	*no asbestos detected*		
Sample # **M-WS-019A**			2012-08688- 56	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		

Sample # **M-WS-019B**			2012-08688- 57	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-019C**			2012-08688- 58	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-019D**			2012-08688- 59	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CS-020A**			2012-08688- 60	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CS-020B**			2012-08688- 61	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CS-020C**			2012-08688- 62	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	off-white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-ACT-021A**			2012-08688- 63	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Sample # **M-ACT-021B**			2012-08688- 64	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Sample # **M-ACT-021C**			2012-08688- 65	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	brown	mastic	*no asbestos detected*		
Sample # **M-ACP-023A**			2012-08688- 66	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Layer # 3	brown	glue	*no asbestos detected*		
Sample # **M-ACP-023B**			2012-08688- 67	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Layer # 3	brown	glue	*no asbestos detected*		
Sample # **M-ACP-023C**			2012-08688- 68	Acoustical Tile	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	tan	acoustical tile	*no asbestos detected*		
Layer # 3	brown	glue	*no asbestos detected*		
Sample # **M-VFT-024A**			2012-08688- 69	Flooring	Positive Layer? No
Layer # 1	blue	floor tile	*no asbestos detected*		
Layer # 2	yellow	mastic	*no asbestos detected*		
Layer # 3	off-white	floor tile	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-VFT-024B**			2012-08688- 70	Flooring	Positive Layer? No
Layer # 1	blue	floor tile	*no asbestos detected*		
Layer # 2	yellow	mastic	*no asbestos detected*		
Layer # 3	off-white	floor tile	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-VFT-024C**			2012-08688- 71	Flooring	Positive Layer? No
Layer # 1	blue	floor tile	*no asbestos detected*		
Layer # 2	yellow	mastic	*no asbestos detected*		
Layer # 3	off-white	floor tile	*no asbestos detected*		
Layer # 4	yellow	mastic	*no asbestos detected*		
Sample # **M-ACP-025A**			2012-08688- 72	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	silver	foil	*no asbestos detected*		

Sample # **M-ACP-025B**			2012-08688- 73	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	silver	foil	*no asbestos detected*		
Sample # **M-ACP-025C**			2012-08688- 74	Acoustical Tile	Positive Layer? No
Layer # 1	white	paint	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	silver	foil	*no asbestos detected*		
Sample # **M-LIN-026A**			2012-08688- 75	Flooring	Positive Layer? No
Layer # 1	various	sheet flooring surface	*no asbestos detected*		
Layer # 2	off-white	sheet flooring backing	*no asbestos detected*		
Layer # 3	tan	mastic	*<=1% chrysotile asbestos*		
Sample # **M-LIN-026B**			2012-08688- 76	Flooring	Positive Layer? No
Layer # 1	various	sheet flooring surface	*no asbestos detected*		
Layer # 2	off-white	sheet flooring backing	*no asbestos detected*		
Layer # 3	yellow	mastic	*no asbestos detected*		
Sample # **M-LIN-026C**			2012-08688- 77	Flooring	Positive Layer? No
Layer # 1	tan	mastic	*no asbestos detected*		
Layer # 2	various	sheet flooring surface	*no asbestos detected*		
Layer # 3	off-white	sheet flooring backing	*no asbestos detected*		
Layer # 4	tan	mastic	*no asbestos detected*		
Sample # **M-CBM-027A**			2012-08688- 78	Miscellaneous	Positive Layer? No
Layer # 1	purple	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Layer # 3	yellow	mastic	*no asbestos detected*		
Sample # **M-CBM-027B**			2012-08688- 79	Miscellaneous	Positive Layer? No
Layer # 1	purple	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-027C**			2012-08688- 80	Miscellaneous	Positive Layer? No
Layer # 1	purple	base cove	*no asbestos detected*		
Layer # 2	brown	mastic	*no asbestos detected*		
Sample # **M-CBM-028A**			2012-08688- 81	Miscellaneous	Positive Layer? No
Layer # 1	gray	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-028B**			2012-08688- 82	Miscellaneous	Positive Layer? No
Layer # 1	gray	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-CBM-028C**			2012-08688- 83	Miscellaneous	Positive Layer? No
Layer # 1	gray	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		
Sample # **M-VFT-030A**			2012-08688- 84	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-030B**			2012-08688- 85	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-030C**			2012-08688- 86	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-030D**			2012-08688- 87	Flooring	Positive Layer? Yes
Layer # 1	green	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-031A**			2012-08688- 88	Flooring	Positive Layer? Yes
Layer # 1	tan	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-031B**			2012-08688- 89	Flooring	Positive Layer? Yes
Layer # 1	tan	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-VFT-031C**			2012-08688- 90	Flooring	Positive Layer? Yes
Layer # 1	tan	floor tile	*5-10% chrysotile asbestos*		
Layer # 2	black	mastic	*5-10% chrysotile asbestos*		
Sample # **M-WS-032A**			2012-08688- 91	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		
Layer # 3	tan	plaster (scratch coat)	*no asbestos detected*		
Layer # 4	tan	paper/cardboard	*no asbestos detected*		
Layer # 5	white	drywall core	*no asbestos detected*		
Sample # **M-WS-032B**			2012-08688- 92	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	plaster (top coat)	*no asbestos detected*		
Layer # 3	tan	plaster (scratch coat)	*no asbestos detected*		

Sample # **M-WS-032C**			2012-08688- 93	Cementitious	Positive Layer? No
Layer # 1	various	paint	*no asbestos detected*		
Layer # 2	gray	stucco	*no asbestos detected*		
Sample # **M-ACT-033A**			2012-08688- 94	Acoustical Tile	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	glue	*no asbestos detected*		
Sample # **M-ACT-033B**			2012-08688- 95	Acoustical Tile	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	glue	*no asbestos detected*		
Layer # 4	brown	glue	*no asbestos detected*		
Sample # **M-ACT-033C**			2012-08688- 96	Acoustical Tile	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	yellow	acoustical tile	*no asbestos detected*		
Layer # 3	tan	glue	*no asbestos detected*		
Layer # 4	brown	glue	*no asbestos detected*		
Sample # **M-CFT-034A**			2012-08688- 97	Miscellaneous	Positive Layer? Yes
Layer # 1	black	mastic	*5-10% chrysotile asbestos*		
Layer # 2	tan	ceramic	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-034B**			2012-08688- 98	Miscellaneous	Positive Layer? Yes
Layer # 1	black	mastic	*5-10% chrysotile asbestos*		
Layer # 2	tan	ceramic	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-034C**			2012-08688- 99	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	mortar	*no asbestos detected*		
Sample # **M-CWT-035A**			2012-08688- 100	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Layer # 3	tan	ceramic	*no asbestos detected*		
Sample # **M-CWT-035B**			2012-08688- 101	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CWT-035C**			2012-08688- 102	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CAULK-037A**			2012-08688- 103	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	clear	sealant	*no asbestos detected*		
Sample # **M-CAULK-037B**			2012-08688- 104	Adhesive/caulk	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	clear	sealant	*no asbestos detected*		
Layer # 3	black	sealant	*no asbestos detected*		
Sample # **M-CAULK-037C**			2012-08688- 105	Adhesive/caulk	Positive Layer? No
Layer # 1	tan	sealant	*no asbestos detected*		
Sample # **M-CFT-038A**			2012-08688- 106	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-038B**			2012-08688- 107	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-038C**			2012-08688- 108	Miscellaneous	Positive Layer? No
Layer # 1	off-white	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-ROOF-039A**			2012-08688- 109	Roofing	Positive Layer? No
Layer # 1	black	roof ply/bitumen	*no asbestos detected*		
Layer # 2	tan	plaster	*no asbestos detected*		
Sample # **M-ROOF-039B**			2012-08688- 110	Roofing	Positive Layer? No
Layer # 1	black	roof ply/bitumen	*no asbestos detected*		
Layer # 2	tan	plaster	*no asbestos detected*		
Sample # **M-ROOF-039C**			2012-08688- 111	Roofing	Positive Layer? No
Layer # 1	black	roof ply/bitumen	*no asbestos detected*		
Layer # 2	tan	plaster	*no asbestos detected*		
Sample # **M-WS-041A**			2012-08688- 112	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-WS-041B**			2012-08688- 113	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		

Sample # **M-WS-041C**			2012-08688- 114	Wall System	Positive Layer? No
Layer # 1	off-white	paint	*no asbestos detected*		
Layer # 2	white	texture/joint compound	*no asbestos detected*		
Layer # 3	tan	paper/cardboard	*no asbestos detected*		
Layer # 4	white	drywall core	*no asbestos detected*		
Sample # **M-CWT-042A**			2012-08688- 115	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Sample # **M-CWT-042B**			2012-08688- 116	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Sample # **M-CWT-042C**			2012-08688- 117	Miscellaneous	Positive Layer? No
Layer # 1	white	ceramic	*no asbestos detected*		
Layer # 2	white	grout	*no asbestos detected*		
Sample # **M-CFT-043A**			2012-08688- 118	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-043B**			2012-08688- 119	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-043C**			2012-08688- 120	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-ACP-040D**			2012-08688- 121	Not Analyzed	
Sample # **M-CFT-044A**			2012-08688- 122	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-044B**			2012-08688- 123	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CFT-044C**			2012-08688- 124	Miscellaneous	Positive Layer? No
Layer # 1	tan	ceramic	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-WG-045A**			2012-08688- 125	Adhesive/caulk	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	gray	putty	*<=1% chrysotile asbestos*		
Sample # **M-WG-045B**			2012-08688- 126	Adhesive/caulk	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	gray	putty	*<=1% chrysotile asbestos*		
Sample # **M-WG-045C**			2012-08688- 127	Adhesive/caulk	Positive Layer? No
Layer # 1	white	surface	*no asbestos detected*		
Layer # 2	gray	putty	*<=1% chrysotile asbestos*		
Sample # **M-CFT-046A**			2012-08688- 128	Miscellaneous	Positive Layer? No
Layer # 1	green	tile	*no asbestos detected*		
Layer # 2	tan	tile	*no asbestos detected*		
Sample # **M-CFT-046B**			2012-08688- 129	Miscellaneous	Positive Layer? No
Layer # 1	tan	tile	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Layer # 3	gray	mortar	*no asbestos detected*		
Sample # **M-CFT-046C**			2012-08688- 130	Miscellaneous	Positive Layer? No
Layer # 1	tan	tile	*no asbestos detected*		
Layer # 2	gray	grout	*no asbestos detected*		
Sample # **M-CWT-047A**			2012-08688- 131	Miscellaneous	Positive Layer? No
Layer # 1	white	tile	*no asbestos detected*		
Layer # 2	off-white	grout	*no asbestos detected*		
Layer # 3	off-white	mortar	*no asbestos detected*		
Layer # 4	green	tile	*no asbestos detected*		
Layer # 5	off-white	grout	*no asbestos detected*		
Layer # 6	off-white	mastic	*no asbestos detected*		
Sample # **M-CWT-047B**			2012-08688- 132	Miscellaneous	Positive Layer? No
Layer # 1	white	tile	*no asbestos detected*		
Layer # 2	off-white	grout	*no asbestos detected*		
Layer # 3	off-white	mortar	*no asbestos detected*		
Layer # 4	green	tile	*no asbestos detected*		
Layer # 5	off-white	grout	*no asbestos detected*		
Layer # 6	off-white	mastic	*no asbestos detected*		
Sample # **M-CWT-047C**			2012-08688- 133	Miscellaneous	Positive Layer? No
Layer # 1	white	tile	*no asbestos detected*		
Layer # 2	off-white	grout	*no asbestos detected*		
Layer # 3	off-white	mortar	*no asbestos detected*		
Sample # **M-CBM-048A**			2012-08688- 134	Miscellaneous	Positive Layer? No
Layer # 1	green	base cove	*no asbestos detected*		
Layer # 2	off-white	mastic	*no asbestos detected*		

Sample #	**M-CBM-048B**		2012-08688- 135	Miscellaneous		Positive Layer? No
	Layer # 1	green	base cove	*no asbestos detected*		
	Layer # 2	off-white	mastic	*no asbestos detected*		
Sample #	**M-CBM-048C**		2012-08688- 136	Miscellaneous		Positive Layer? No
	Layer # 1	green	base cove	*no asbestos detected*		
	Layer # 2	off-white	mastic	*no asbestos detected*		
Sample #	**M-CERCBM-049A**		2012-08688- 137	Miscellaneous		Positive Layer? No
	Layer # 1	tan	ceramic	*no asbestos detected*		
	Layer # 2	off-white	grout	*no asbestos detected*		
Sample #	**M-CERCBM-049B**		2012-08688- 138	Miscellaneous		Positive Layer? No
	Layer # 1	tan	ceramic	*no asbestos detected*		
	Layer # 2	off-white	grout	*no asbestos detected*		
	Layer # 3	gray	mastic	*no asbestos detected*		
Sample #	**M-CERCBM-049C**		2012-08688- 139	Miscellaneous		Positive Layer? No
	Layer # 1	tan	ceramic	*no asbestos detected*		
	Layer # 2	off-white	grout	*no asbestos detected*		
	Layer # 3	gray	mastic	*no asbestos detected*		

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

Sample M-VFT-001A **Lab Number** 2012-08688- 1 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	99	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-001B **Lab Number** 2012-08688- 2 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-001C **Lab Number** 2012-08688- 3 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-CBM-002A **Lab Number** 2012-08688- 4 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	brown	1	n.d.	-	-	-	-	-
2	mastic	2	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-002B **Lab Number** 2012-08688- 5 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	brown	1	n.d.	-	-	-	-	-
2	mastic	2	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-002C **Lab Number** 2012-08688- 6 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	brown	1	n.d.	-	-	-	-	-
2	mastic	2	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-003A **Lab Number** 2012-08688- 7 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	blue	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-003B **Lab Number** 2012-08688- 8 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	blue	1	n.d.	n.d.	-	-	-	-
2	mastic	2	off-white	1	n.d.	n.d.	-	-	-	-
3	mastic	1	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	-	-	-	-
				Fiber Identification:	talc and transitional	non-fibrous tremolit				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	gb/dr	w/b	1.601	<1.60
2	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	gb/dr	1.619	1.601
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CBM-003C **Lab Number** 2012-08688- 9 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	blue	1	n.d.	n.d.	n.d.	-	-	-
2	mastic	2	off-white	1	n.d.	n.d.	n.d.	-	-	-
3	mastic	1	brown	1	<=1%	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	<=1%	-	-	-

Fiber Identification: talc and transitional | non-fibrous tremolit | cellulose fiber

	Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	gb/dr	w/b	1.601	<1.60
2	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	gb/dr	1.619	1.601
3	cellulose fiber	W	F	N	N	H	+	U					
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CBM-004A **Lab Number** 2012-08688- 10 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	1	off-white	1	n.d.	-	-	-	-	-
3	mastic	1	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-

Fiber Identification: none

	Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-004B **Lab Number** 2012-08688- 11 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-004C **Lab Number** 2012-08688- 12 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	off-white	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CPT-005A **Lab Number** 2012-08688- 13 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	93	various	1	80-90%	-	-	-	-	-
2	mastic	7	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-005B **Lab Number** 2012-08688- 14 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	80-90%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	80-90%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-005C **Lab Number** 2012-08688- 15 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	80-90%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	80-90%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-006A **Lab Number** 2012-08688- 16 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	100	various	1	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps.

Sample M-CPT-006B **Lab Number** 2012-08688- 17 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-006C **Lab Number** 2012-08688- 18 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous Yes **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WS-007A **Lab Number** 2012-08688- 19 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	n.d.	-	-	-
2	texture/joint compound	1	white	3	<=1%	n.d.	n.d.	-	-	-
3	paper/cardboard	5	tan	2	n.d.	90-100%	n.d.	-	-	-
4	drywall core	93	white	3	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	5-10%	<=1%	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber	glass fiber			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2	cellulose fiber	W	F	N	N	H	+	U					
3	glass fiber	CL	D	Y									
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Point Count: Layer Number 2; 2 asbestos counts per 400 total counts = .5 percent.

Sample M-WS-007B **Lab Number** 2012-08688- 20 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	n.d.	-	-	-
2	texture/joint compound	1	white	3	<=1%	n.d.	n.d.	-	-	-
3	paper/cardboard	5	tan	2	n.d.	90-100%	n.d.	-	-	-
4	drywall core	93	white	3	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	5-10%	<=1%	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber	glass fiber			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2	cellulose fiber	W	F	N	N	H	+	U					
3	glass fiber	CL	D	Y									
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Point Count: Layer Number 2; 2 asbestos counts per 400 total counts = .5 percent.

Sample M-WS-007C **Lab Number** 2012-08688- 21 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	n.d.	-	-	-
2	texture/joint compound	1	white	3	<=1%	n.d.	n.d.	-	-	-
3	paper/cardboard	5	tan	2	n.d.	90-100%	n.d.	-	-	-
4	drywall core	93	white	3	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	<=1%	5-10%	<=1%	-	-	-
				Fiber Identification:	chrysotile asbestos	cellulose fiber	glass fiber			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
2	cellulose fiber	W	F	N	N	H	+	U					
3	glass fiber	CL	D	Y									
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Point Count: Layer Number 2; 1 asbestos counts per 400 total counts = .25 percent.

Sample M-CONC-008A **Lab Number** 2012-08688- 22 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): powder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CONC-008B **Lab Number** 2012-08688- 23 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	90	off-white	1	n.d.	-	-	-	-	-
2	concrete	10	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CONC-008C **Lab Number** 2012-08688- 24 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	100	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-ACP-009A **Lab Number** 2012-08688- 25 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	98	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-009B **Lab Number** 2012-08688- 26 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	98	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-009C **Lab Number** 2012-08688- 27 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	98	tan	3	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-010A **Lab Number** 2012-08688- 28 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACP-010B **Lab Number** 2012-08688- 29 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACP-010C **Lab Number** 2012-08688- 30 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACP-010D **Lab Number** 2012-08688- 31 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	98	off-white	3	10-20%	10-20%	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACT-011A **Lab Number** 2012-08688- 32 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 5 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	83	off-white	3	10-20%	10-20%	-	-	-	-
3	mastic	11	brown		n.d.	n.d.	-	-	-	-
4	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
5	plaster	3	off-white	2	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	10-20%	10-20%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACT-011B **Lab Number** 2012-08688- 33 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	85	off-white	3	10-20%	10-20%	-	-	-	-
3	mastic	12	brown		n.d.	n.d.	-	-	-	-
4	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
	Total %	100	**Overall %**		10-20%	10-20%	-	-	-	-
			Fiber Identification:		cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-ACT-011C **Lab Number** 2012-08688- 34 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): perlite, powder, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	85	off-white	3	10-20%	10-20%	-	-	-	-
3	mastic	12	brown		n.d.	n.d.	-	-	-	-
4	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
	Total %	100	**Overall %**		10-20%	10-20%	-	-	-	-
			Fiber Identification:		cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of acoustical tile using acid.

Sample M-CPT-012A **Lab Number** 2012-08688- 35 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-012B **Lab Number** 2012-08688- 36 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-012C **Lab Number** 2012-08688- 37 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3
Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WS-013A **Lab Number** 2012-08688- 38 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	98	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-013B **Lab Number** 2012-08688- 39 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	68	white	2	n.d.	-	-	-	-	-
3	plaster (scratch coat)	30	off-white	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-013C **Lab Number** 2012-08688- 40 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	paper/cardboard	8	tan	2	90-100%	-	-	-	-	-
3	plaster (top coat)	90	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-CPT-014A **Lab Number** 2012-08688- 41 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-014B **Lab Number** 2012-08688- 42 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	99	various	1	90-100%	-	-	-	-	-
2	mastic	1	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CPT-014C **Lab Number** 2012-08688- 43 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Carpet Fibrous Mat

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	carpet	100	various	1	90-100%	-	-	-	-	-
	Total %	100		**Overall %**	90-100%	-	-	-	-	-
				Fiber Identification:	synthetic fiber (extr					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	V	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CBM-015A **Lab Number** 2012-08688- 44 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	black	1	n.d.	-	-	-	-	-
2	mastic	1	off-white	1	n.d.	-	-	-	-	-
3	mastic	1	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-015B **Lab Number** 2012-08688- 45 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	0.5	blue	1	n.d.	-	-	-	-	-
2	base cove	98	black	1	n.d.	-	-	-	-	-
3	mastic	1.5	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-015C **Lab Number** 2012-08688- 46 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	blue	1	n.d.	-	-	-	-	-
2	base cove	97	black	1	n.d.	-	-	-	-	-
3	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-PAR-016A **Lab Number** 2012-08688- 47 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): polymer, wood,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	polymer	7	yellow	1	n.d.	-	-	-	-	-
2	mastic	3	black	1	2-5%	-	-	-	-	-
3	cork	35	brown	2	n.d.	-	-	-	-	-
4	wood	55	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	pb/r	1.561	1.549
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-PAR-016B **Lab Number** 2012-08688- 48 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): polymer, wood,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	polymer	7	yellow	1	n.d.	-	-	-	-	-
2	mastic	3	black	1	2-5%	-	-	-	-	-
3	cork	35	brown	2	n.d.	-	-	-	-	-
4	wood	55	tan	1	n.d.	-	-	-	-	-
	Total %	100	**Overall %**		<=1%	-	-	-	-	-
			Fiber Identification:		chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	pb/r	1.561	1.549
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-PAR-016C **Lab Number** 2012-08688- 49 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** Yes **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): polymer, wood,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	polymer	7	yellow	1	n.d.	-	-	-	-	-
2	mastic	3	black	1	2-5%	-	-	-	-	-
3	cork	35	brown	2	n.d.	-	-	-	-	-
4	wood	55	tan	1	n.d.	-	-	-	-	-
	Total %	100	**Overall %**		<=1%	-	-	-	-	-
			Fiber Identification:		chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	pb/r	1.561	1.549
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CFT-017A **Lab Number** 2012-08688- 50 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	blue	1	n.d.	-	-	-	-	-
2	grout	5	white	2	n.d.	-	-	-	-	-
3	mortar	5	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CFT-017B **Lab Number** 2012-08688- 51 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	77	blue	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
3	mortar	15	gray	1	n.d.	-	-	-	-	-
4	leveling compound	3	off-white	3	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CFT-017C **Lab Number** 2012-08688- 52 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	blue	1	n.d.	-	-	-	-	-
2	mortar	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CWT-018A **Lab Number** 2012-08688- 53 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 5 **Pos Layer?** Yes **# Sub-Samples** 15

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	79	white	1	n.d.	n.d.	-	-	-	-
2	grout	5	white	2	n.d.	n.d.	-	-	-	-
3	mortar	5	gray	1	n.d.	n.d.	-	-	-	-
4	leveling compound	10	off-white	3	n.d.	n.d.	-	-	-	-
5	mastic	1	black	1	2-5%	>1-2%	-	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	chrysotile asbestos				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CWT-018B **Lab Number** 2012-08688- 54 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 12

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	91	white	1	n.d.	-	-	-	-	-
2	grout	5	white	2	n.d.	-	-	-	-	-
3	mortar	3	gray	1	n.d.	-	-	-	-	-
4	mastic	1	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CWT-018C **Lab Number** 2012-08688- 55 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	98	white	1	n.d.	-	-	-	-	-
2	mortar	2	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-WS-019A **Lab Number** 2012-08688- 56 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-019B **Lab Number** 2012-08688- 57 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-019C **Lab Number** 2012-08688- 58 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-019D **Lab Number** 2012-08688- 59 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CS-020A **Lab Number** 2012-08688- 60 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CS-020B **Lab Number** 2012-08688- 61 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CS-020C **Lab Number** 2012-08688- 62 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By MCJ 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	1	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	10	off-white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	84	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-ACT-021A **Lab Number** 2012-08688- 63 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	60	yellow	3	90-100%	n.d.	-	-	-	-
3	mastic	37	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACT-021B **Lab Number** 2012-08688- 64 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	42	yellow	3	90-100%	n.d.	-	-	-	-
3	mastic	55	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	40-50%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACT-021C **Lab Number** 2012-08688- 65 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	55	yellow	3	90-100%	n.d.	-	-	-	-
3	mastic	43	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACP-023A **Lab Number** 2012-08688- 66 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	80	tan	3	90-100%	-	-	-	-	-
3	glue	18	brown	1	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACP-023B **Lab Number** 2012-08688- 67 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	82	tan	3	90-100%	-	-	-	-	-
3	glue	15	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	80-90%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-ACP-023C **Lab Number** 2012-08688- 68 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	-	-	-	-	-
2	acoustical tile	72	tan	3	90-100%	-	-	-	-	-
3	glue	25	brown	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-VFT-024A **Lab Number** 2012-08688- 69 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	48	blue	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	floor tile	50	off-white	1	n.d.	-	-	-	-	-
4	mastic	1	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-024B **Lab Number** 2012-08688- 70 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	53	blue	1	n.d.	-	-	-	-	-
2	mastic	1	yellow	1	n.d.	-	-	-	-	-
3	floor tile	45	off-white	1	n.d.	-	-	-	-	-
4	mastic	1	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-024C **Lab Number** 2012-08688- 71 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	55	blue	1	n.d.	-	-	-	-	-
2	mastic	3	yellow	1	n.d.	-	-	-	-	-
3	floor tile	40	off-white	1	n.d.	-	-	-	-	-
4	mastic	2	yellow	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-ACP-025A **Lab Number** 2012-08688- 72 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, binder, metal

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2.5	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	96	yellow	3	90-100%	n.d.	-	-	-	-
3	paper/cardboard	0.5	tan	2	n.d.	90-100%	-	-	-	-
4	foil	1	silver	1	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	90-100%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-025B **Lab Number** 2012-08688- 73 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, binder, metal

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	96	yellow	3	90-100%	n.d.	-	-	-	-
3	paper/cardboard	0.5	tan	2	n.d.	90-100%	-	-	-	-
4	foil	1.5	silver	1	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	90-100%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACP-025C **Lab Number** 2012-08688- 74 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, binder, metal

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2.5	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	96	yellow	3	90-100%	n.d.	-	-	-	-
3	paper/cardboard	0.5	tan	2	n.d.	90-100%	-	-	-	-
4	foil	1	silver	1	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	90-100%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	cellulose fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	cellulose fiber	W	F	N	N	H	+	U					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-LIN-026A **Lab Number** 2012-08688- 75 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): polymer, filler, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sheet flooring surface	70	various	1	n.d.	n.d.	n.d.	-	-	-
2	sheet flooring backing	28	off-white	3	30-40%	2-5%	n.d.	-	-	-
3	mastic	2	tan	1	<=1%	n.d.	<=1%	-	-	-
	Total %	100		**Overall %**	5-10%	>1-2%	<=1%	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber	chrysotile asbestos			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3	chrysotile asbestos	W	A	N	N	L	+	P	1.550	vb/g	pb/r	1.556	1.549
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of vinyl matrix using solvent.

Sample M-LIN-026B **Lab Number** 2012-08688- 76 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sheet flooring surface	70	various	1	n.d.	n.d.	-	-	-	-
2	sheet flooring backing	25	off-white	3	30-40%	2-5%	-	-	-	-
3	mastic	5	yellow	1	<=1%	n.d.	-	-	-	-
	Total %	100		**Overall %**	5-10%	>1-2%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of vinyl matrix using solvent.

Sample M-LIN-026C **Lab Number** 2012-08688- 77 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): polymer, filler, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mastic	4	tan	1	2-5%	-	-	-	-	-
2	sheet flooring surface	75	various	1	n.d.	-	-	-	-	-
3	sheet flooring backing	20	off-white	3	30-40%	-	-	-	-	-
4	mastic	1	tan	1	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of vinyl matrix using solvent.

Sample M-CBM-027A **Lab Number** 2012-08688- 78 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	96	purple	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	<=1%	-	-	-	-	-
3	mastic	2	yellow	1	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-027B **Lab Number** 2012-08688- 79 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	purple	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-027C **Lab Number** 2012-08688- 80 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	purple	1	n.d.	n.d.	-	-	-	-
2	mastic	2	brown	1	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	<=1%	<=1%	-	-	-	-
				Fiber Identification:	talc and transitional	non-fibrous tremolit				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	sb/o	w/b	1.607	<1.60
2	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	sb/o	1.619	1.607
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CBM-028A **Lab Number** 2012-08688- 81 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	gray	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-028B **Lab Number** 2012-08688- 82 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	gray	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-028C **Lab Number** 2012-08688- 83 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	gray	1	n.d.	-	-	-	-	-
2	mastic	3	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-VFT-030A **Lab Number** 2012-08688- 84 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	green	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-030B **Lab Number** 2012-08688- 85 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	97	green	1	5-10%	-	-	-	-	-
2	mastic	3	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-030C **Lab Number** 2012-08688- 86 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	97	green	1	5-10%	-	-	-	-	-
2	mastic	3	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-030D **Lab Number** 2012-08688- 87 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	green	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-031A **Lab Number** 2012-08688- 88 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	tan	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-031B **Lab Number** 2012-08688- 89 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	98	tan	1	5-10%	-	-	-	-	-
2	mastic	2	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-VFT-031C **Lab Number** 2012-08688- 90 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): filler, polymer,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	99	tan	1	5-10%	-	-	-	-	-
2	mastic	1	black	1	5-10%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of floor tile matrix and mastic using solvent.

Sample M-WS-032A **Lab Number** 2012-08688- 91 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 5 **Pos Layer?** No **# Sub-Samples** 11

Non-Fibrous Components (in approx. decreasing order): powder, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	18	white	2	n.d.	-	-	-	-	-
3	plaster (scratch coat)	50	tan	2	>1-2%	-	-	-	-	-
4	paper/cardboard	5	tan	2	90-100%	-	-	-	-	-
5	drywall core	25	white	3	>1-2%	-	-	-	-	-
	Total %	100		**Overall %**	5-10%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-032B **Lab Number** 2012-08688- 92 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Wall System Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 8

Non-Fibrous Components (in approx. decreasing order): powder, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	-	-	-	-	-
2	plaster (top coat)	22	white	2	n.d.	-	-	-	-	-
3	plaster (scratch coat)	75	tan	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of plaster matrix using acid.

Sample M-WS-032C **Lab Number** 2012-08688- 93 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Cementitious Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, rock, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	10	various	1	n.d.	-	-	-	-	-
2	stucco	90	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Procedure: dissolution of stucco matrix using acid.

Sample M-ACT-033A **Lab Number** 2012-08688- 94 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	-	-	-	-	-
2	acoustical tile	80	yellow	3	90-100%	-	-	-	-	-
3	glue	18	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	70-80%	-	-	-	-	-
				Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACT-033B **Lab Number** 2012-08688- 95 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	n.d.	-	-	-	-
2	acoustical tile	60	yellow	3	90-100%	n.d.	-	-	-	-
3	glue	18	tan	1	n.d.	n.d.	-	-	-	-
4	glue	20	brown	1	n.d.	>1-2%	-	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	-	-	-	-
				Fiber Identification:	glass fiber	wollastonite				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	wollastonite	W	G	N	N	M	B	P					
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent.

Sample M-ACT-033C **Lab Number** 2012-08688- 96 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Acoustical Tile Fibrous Mat

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): binder, polymer, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	n.d.	n.d.	-	-	-
2	acoustical tile	60	yellow	3	90-100%	n.d.	n.d.	-	-	-
3	glue	18	tan	1	n.d.	n.d.	n.d.	-	-	-
4	glue	20	brown	1	n.d.	<=1%	<=1%	-	-	-
	Total %	100		**Overall %**	50-60%	<=1%	<=1%	-	-	-
				Fiber Identification:	glass fiber	talc and transitional	non-fibrous tremolit			

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2	talc and transitional talc fiber	W	B	N	N	H	+	P	1.605	sb/o	w/b	1.607	<1.60
3	non-fibrous tremolite/actinolite	W	G	N	N	M	+	O	1.605	vg/y	sb/o	1.619	1.607
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Note: sample contained transitional talc and/or non-fibrous tremolite/actinolite. Transitional talc is an intimate mixture of anthophyllite and talc. Even though it may have been asbestos once, the EPA has ruled not to regulate 'fibers of mixed mineral assemblege'. However, these fibers may be regulated when analyzed by TEM, since some are indistinguishable from anthophyllite asbestos. Likewise, non-fibrous tremolite/actinolite, while not regulated by EPA, may be counted (and thus regulated) when analyzed by TEM.

Sample M-CFT-034A **Lab Number** 2012-08688- 97 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mastic	3	black	1	5-10%	-	-	-	-	-
2	ceramic	50	tan	1	n.d.	-	-	-	-	-
3	mortar	47	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent. No grout.

Sample M-CFT-034B **Lab Number** 2012-08688- 98 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** Yes **# Sub-Samples** 7

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	mastic	0.5	black	1	5-10%	-	-	-	-	-
2	ceramic	75	tan	1	n.d.	-	-	-	-	-
3	mortar	24.5	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	sb/o	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent. No grout.

Sample M-CFT-034C **Lab Number** 2012-08688- 99 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	65	tan	1	n.d.	-	-	-	-	-
2	mortar	35	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent. No grout. Note: A black mastic was present but was too thin to analyze. Mortar may have been grout on all three samples.

Sample M-CWT-035A **Lab Number** 2012-08688- 100 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	off-white	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
3	ceramic	15	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent.

Sample M-CWT-035B **Lab Number** 2012-08688- 101 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	off-white	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent.

Sample M-CWT-035C **Lab Number** 2012-08688- 102 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	off-white	1	n.d.	-	-	-	-	-
2	grout	10	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Procedure: dissolution of matrix using solvent.

Sample M-CAULK-037A **Lab Number** 2012-08688- 103 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	5	off-white	1	n.d.	-	-	-	-	-
2	sealant	95	clear	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent.

Sample M-CAULK-037B **Lab Number** 2012-08688- 104 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Rubbery

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): polymer, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	5	off-white	1	n.d.	-	-	-	-	-
2	sealant	65	clear	1	n.d.	-	-	-	-	-
3	sealant	30	black	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent.

Sample M-CAULK-037C **Lab Number** 2012-08688- 105 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	sealant	100	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CFT-038A **Lab Number** 2012-08688- 106 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	off-white	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-038B **Lab Number** 2012-08688- 107 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	off-white	1	n.d.	-	-	-	-	-
2	grout	10	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-038C **Lab Number** 2012-08688- 108 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	off-white	1	n.d.	-	-	-	-	-
2	grout	20	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-ROOF-039A **Lab Number** 2012-08688- 109 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock, powder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	85	black	1	10-20%	-	-	-	-	-
2	plaster	15	tan	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	10-20%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Procedure: dissolution of matrix using dilute HCl acid. Note: unable to determine exact layer number and sequence. Note: sample was a mixture of several roofing elements; similar pieces were analyzed as single roofing layers.

Sample M-ROOF-039B **Lab Number** 2012-08688- 110 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	97	black	1	20-30%	-	-	-	-	-
2	plaster	3	tan	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	20-30%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Procedure: dissolution of matrix using dilute HCl acid. Note: unable to determine exact layer number and sequence. Note: sample was a mixture of several roofing elements; similar pieces were analyzed as single roofing layers.

Sample M-ROOF-039C **Lab Number** 2012-08688- 111 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock, filler

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	90	black	1	10-20%	<=1%	-	-	-	-
2	plaster	10	tan	2	n.d.	n.d.	-	-	-	-
	Total %	100		**Overall %**	10-20%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Procedure: dissolution of matrix using dilute HCl acid. Note: unable to determine exact layer number and sequence. Note: sample was a mixture of several roofing elements; similar pieces were analyzed as single roofing layers.

Sample M-WS-041A **Lab Number** 2012-08688- 112 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	3	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	2	white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	90	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid. Texture was too thin for an accurate analysis.

Sample M-WS-041B **Lab Number** 2012-08688- 113 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	5	white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	88	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-WS-041C **Lab Number** 2012-08688- 114 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 4 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): powder, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	paint	2	off-white	1	n.d.	n.d.	-	-	-	-
2	texture/joint compound	8	white	3	n.d.	n.d.	-	-	-	-
3	paper/cardboard	5	tan	2	90-100%	n.d.	-	-	-	-
4	drywall core	85	white	3	<=1%	<=1%	-	-	-	-
	Total %	100		**Overall %**	5-10%	<=1%	-	-	-	-
				Fiber Identification:	cellulose fiber	glass fiber				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2	glass fiber	CL	D	Y									
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of paint matrix using solvent. Procedure: dissolution of joint compound/texture matrix using acid.

Sample M-CWT-042A **Lab Number** 2012-08688- 115 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	85	white	1	n.d.	-	-	-	-	-
2	grout	15	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Surface of tile was green. No mortar.

Sample M-CWT-042B **Lab Number** 2012-08688- 116 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	70	white	1	n.d.	-	-	-	-	-
2	grout	30	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Surface of tile was green. No mortar.

Sample M-CWT-042C **Lab Number** 2012-08688- 117 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By RAM 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	70	white	1	n.d.	-	-	-	-	-
2	grout	30	white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. Surface of tile was white. No mortar.

Sample M-CFT-043A **Lab Number** 2012-08688- 118 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	tan	1	n.d.	-	-	-	-	-
2	grout	20	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-043B **Lab Number** 2012-08688- 119 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	95	tan	1	n.d.	-	-	-	-	-
2	grout	5	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-043C **Lab Number** 2012-08688- 120 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	tan	1	n.d.	-	-	-	-	-
2	grout	10	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-044A **Lab Number** 2012-08688- 122 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	85	tan	1	n.d.	-	-	-	-	-
2	grout	15	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-044B **Lab Number** 2012-08688- 123 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	80	tan	1	n.d.	-	-	-	-	-
2	grout	20	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-CFT-044C **Lab Number** 2012-08688- 124 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4
Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	85	tan	1	n.d.	-	-	-	-	-
2	grout	15	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid. No mortar.

Sample M-WG-045A **Lab Number** 2012-08688- 125 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5
Non-Fibrous Components (in approx. decreasing order): powder, filler, polymer

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	2	white	1	n.d.	-	-	-	-	-
2	putty	98	gray	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	sb/o	gb/dr	1.553	1.545
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WG-045B **Lab Number** 2012-08688- 126 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5
Non-Fibrous Components (in approx. decreasing order): powder, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	8	white	2	n.d.	-	-	-	-	-
2	putty	92	gray	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	sb/o	gb/dr	1.553	1.545
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-WG-045C **Lab Number** 2012-08688- 127 **Sampled:** 9/5/2012 **Condition:** acceptable
Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Adhesive/caulk Non-fibrous Solid
Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 5
Non-Fibrous Components (in approx. decreasing order): powder, filler, binder

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	surface	3	white	2	n.d.	-	-	-	-	-
2	putty	97	gray	2	<=1%	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	sb/o	gb/dr	1.553	1.545
2													
3													
4													
5													
6													

Sample Analytical Note
Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample M-CFT-046A **Lab Number** 2012-08688- 128 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): ceramic, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	55	green	1	n.d.	-	-	-	-	-
2	tile	45	tan	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: there appears to be more than one sample layer sequence in the bag (e.g., samples from more than one location); therefore, the reported layer sequence has been estimated/composited.

Sample M-CFT-046B **Lab Number** 2012-08688- 129 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	85	tan	1	n.d.	-	-	-	-	-
2	grout	7	gray	2	<=1%	-	-	-	-	-
3	mortar	8	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	<=1%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample M-CFT-046C **Lab Number** 2012-08688- 130 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	88	tan	1	n.d.	-	-	-	-	-
2	grout	12	gray	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid.

Sample M-CWT-047A **Lab Number** 2012-08688- 131 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 6 **Pos Layer?** No **# Sub-Samples** 12

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	55	white	1	n.d.	-	-	-	-	-
2	grout	7	off-white	2	n.d.	-	-	-	-	-
3	mortar	7	off-white	1	n.d.	-	-	-	-	-
4	tile	25	green	1	n.d.	-	-	-	-	-
5	grout	3	off-white	2	n.d.	-	-	-	-	-
6	mastic	3	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: there appears to be more than one sample layer sequence in the bag (e.g., samples from more than one location); therefore, the reported layer sequence has been estimated/composited.

Sample M-CWT-047B **Lab Number** 2012-08688- 132 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 6 **Pos Layer?** No **# Sub-Samples** 12

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	45	white	1	n.d.	-	-	-	-	-
2	grout	5	off-white	2	n.d.	-	-	-	-	-
3	mortar	5	off-white	1	n.d.	-	-	-	-	-
4	tile	30	green	1	n.d.	-	-	-	-	-
5	grout	10	off-white	2	n.d.	-	-	-	-	-
6	mastic	5	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Note: there appears to be more than one sample layer sequence in the bag (e.g., samples from more than one location); therefore, the reported layer sequence has been estimated/composited.

Sample M-CWT-047C **Lab Number** 2012-08688- 133 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	tile	90	white	1	n.d.	-	-	-	-	-
2	grout	5	off-white	2	n.d.	-	-	-	-	-
3	mortar	5	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using dilute HCl acid. Minor adhering wall materials, paint and/or texture, etc. were not analyzed.

Sample M-CBM-048A **Lab Number** 2012-08688- 134 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	green	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-048B **Lab Number** 2012-08688- 135 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	97	green	1	n.d.	-	-	-	-	-
2	mastic	3	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CBM-048C **Lab Number** 2012-08688- 136 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Rubbery

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): polymer, filler,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	base cove	98	green	1	n.d.	-	-	-	-	-
2	mastic	2	off-white	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of polymer matrix using solvent. Minor adhering wall paint and/or texture, etc. not analyzed.

Sample M-CERCBM-049A **Lab Number** 2012-08688- 137 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	90	tan	1	n.d.	-	-	-	-	-
2	grout	10	off-white	2	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CERCBM-049B **Lab Number** 2012-08688- 138 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/13/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	92	tan	1	n.d.	-	-	-	-	-
2	grout	5	off-white	2	n.d.	-	-	-	-	-
3	mastic	3	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

Sample M-CERCBM-049C **Lab Number** 2012-08688- 139 **Sampled:** 9/5/2012 **Condition:** acceptable

Analyzed By GBB 9/14/2012 **An?** OK **Apparent Smp Type** Miscellaneous Non-fibrous Solid

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): ceramic, powder, rock

Layers

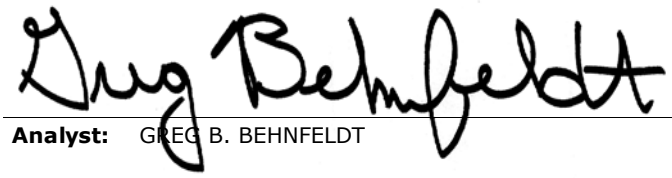
#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	ceramic	94	tan	1	n.d.	-	-	-	-	-
2	grout	3	off-white	2	n.d.	-	-	-	-	-
3	mastic	3	gray	1	n.d.	-	-	-	-	-
	Total %	100		**Overall %**	n.d.	-	-	-	-	-
				Fiber Identification:	none					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	none												
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of cementitious matrices using acid.

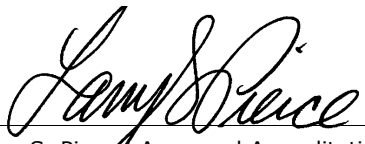
Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be +, - or B (both); Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber



Analyst: GREG B. BEHNFELDT

Printed: 14-Sep-12

Original Print Date: 14-Sep-12



Larry S. Pierce, Approved Accreditation Signatory

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Strata, Inc.	
Address 8653 W Hackamore Drive	
City, State, Zip Code Boise, ID 83704	
Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
	Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐				
	Single Layer Protocol: Yes ☐ No ☐				
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐	<6 hrs ☐		1-2 days ☐	N/A
	ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐				
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (Include asbestos type/manufacturer, Date)	Sample Date	Sample Time	Vol/Area
1) M-VFT-001A	12"x12" Vinyl Floor Tile, Beige/Brown	9-5-12	—	—
2) ↓ 001B	"			
3) ↓ 001C	"			
4) M-CBM-002A	4" Cove Base + Mastic (Brown)			
5) ↓ 002B	"			
6) ↓ 002C	"			
7) M-CBM-003A	4" Cove Base + Mastic (Blue)			
8) ↓ 003B	"			
9) ↓ 003C	"			
10) M-CBM-004A	4" Cove Base + Mastic (DK Beige)			
11) ↓ 004B	"			
12) ↓ 004C	"			
13) M-CPT-005A	Blue Carpet + Mastic			
14) M-CPT-005B	"			
15) M-CPT-005C	"			
16) M-CPT-006A	Brown Carpet + Mastic			
17) ↓ 006B	"			
18) ↓ 006C	"			
19) M-WS-007A	Gipsum Wall System (Smooth)			
20) ↓ -007B	"			

1)Relinquished by:	Date: 9-10-12	Time: 0850	3)Relinquished by:	Date:	Time:
2)Received by: Kathy Knowles	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name	F/x		Page 1 of 8	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

20120868 K

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company)	Strata, Inc.
Address	8653 W Hackamore Drive
City, State, Zip Code	Boise, ID 83704
Phone 208-376-8200	FAX 208-376-8201
Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include agar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-WS-007C	Gypsum Wall System (Smooth)	9-5-12	—	—
2) M-CONC-008A	Concrete Wall System (Sandy)			
3) 008B	"			
4) 008C	"			
5) M-ACP-009A	2'x8' Ceiling Panels (Spagetti)			
6) 009B	"			
7) 009C	"			
8) M-ACP-010A	2'x4' Acoustic Ceiling Tiles (Pinhole)			
9) 010B	"			
10) 010C	"			
11) 010D	1'x1' Acoustic Ceiling Tile (Deep-fissure)			
12) M-ACT-011A	"			
13) 011B	"			
14) 011C				
15) M-CPT-012A	Gray Carpet + Mastic			
16) 012B	"			
17) 012C	"			
18) M-WS-013A	Gypsum Wall System (Sandy)			
19) 013B	"			
20) 013C	"			

1)Relinquished by:	Date: 9-10-12	Time: 0850	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Review of Analysis Request (Initials) _____

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201208688 Yes

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company)	Strata, Inc.
Address	8653 W Hackamore Drive
City, State, Zip Code	Boise, ID 83704
Phone 208-376-8200	FAX 208-376-8201
Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include asgr type(maker)exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CPT-014A	Blue / Gray Carpet + Mastic	9-5-12	—	—
2) 014B	"			
3) 014C	"			
4) M-CBM-015A	4" Cove Base + Mastic			
5) 015B	"			
6) 015C	"			
7) M-PAR-016A	Parquet flooring			
8) 016B	"			
9) 016C	"			
10) M-CPT-017A	2" x 2" Blue Ceramic Tile			
11) 017B	"			
12) 017C	"			
13) M-CWT-018A	4" x 4" + 2" x 2" White + Blue Ceramic			
14) 018B	" Tiles			
15) 018C	"			
16) M-WS-019A	Gypsum Wall System, White Orange Peel			
17) 019B	"			
18) 019C	"			
19) 019D	"			
20) M-CS-020A	~~Ceiling Surfacing~~ Gypsum Wall System, Heath Knock Down			

1)Relinquished by:	Date: 9-10-12	Time: 0851	3)Relinquished by:	Date:	Time:
2)Received by	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name			Page 3 of 8	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208688

FIBERQUANT ANALYTICAL SERVICES

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Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include agar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CS-020B	Gypsum Surfacing (Heavy Knock Down)	9-5-12	—	—
2) ↓ 020C	"			
3) M-ACT-021A	1'x1' Acoustic Ceiling Tile (Even Spray Grid)			
4) ↓ 021B	"			
5) ↓ 021C	"			
6) M-CPT-022A	Light Brown Carpet			
7) ↓ 022B	No Sample			
8) ↓ 022C				
9) M-ACP-023A	1'x1' White Acoustic Ceiling Tile			
10) ↓ 023B	" (Computer Grid)			
11) ↓ 023C	"			
12) M-VFT-024A	Vinyl Floor Tile, White/Blue + Mastic			
13) ↓ 024B	"			
14) ↓ 024C	"			
15) M-ACP-025A	2'x4' Acoustic Ceiling Tile (Smooth)			
16) ↓ 025B	"			
17) ↓ 025C	"			
18) M-LIN-026A	Beige/Gray Linoleum Flooring			
19) ↓ 026B	"			
20) ↓ 026C	"			

1)Relinquished by:	Date: 9-10-12	Time: 0851	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208688

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Strata, Inc.	
Address 8653 W Hackamore Drive	
City, State, Zip Code Boise, ID 83704	
Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include spar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CBM-027A	Brownish/Pink Cove Base & Mastic	9-5-12	—	—
2) ↓ 027B	"			
3) ↓ 027C	"			
4) M-CBM-028A	4" Cove Base & Mastic, Light Gray			
5) ↓ 028B	"			
6) ↓ 028C	"			
7) M-GN-029A	No Sample			
8) ↓ 029B				
9) ↓ 029C				
10) M-VFT-030A	9"x9" Vinyl Floor Tile, Green			
11) ↓ 030B	"			
12) ↓ 030C	"			
13) M-VFT-030D	9"x9" Vinyl Floor Tile, Beige			
14) M-VFT-031A	"			
15) ↓ 031B	"			
16) ↓ 031C	"			
17) M-WS-032A	Gypsum Wall System, Sandy Texture			
18) ↓ 032B	"			
19) ↓ 032C	"			
20) M-ACT-033A	1'x1' Acoustic Ceiling Tile, Smooth & Mastic			

1)Relinquished by:	Date: 9-10-12	Time: 0851	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name			Page 5 of 8	

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

201208688

FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company) Strata, Inc.	
Address 8653 W Hackamore Drive	
City, State, Zip Code Boise, ID 83704	
Phone 208-376-8200	FAX 208-376-8201
Email cbrischler@stratageotech.com	

Invoice to (Company) Strata, Inc.	
Address same	
City, State, Zip Code	
Phone	FAX

Contact (print) Cristina Brischler	
Sampled by (signature)	
Job Number or Project Name Quinn Coliseum	
PO Number ON12030A	

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Alter ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include asar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-ACT-033B	1'x1' Acoustic Ceiling Tile, Smooth & Mastic	9-5-12	—	—
2) ↓ 033C	"			
3) M-CFT-034A	6"x6" Beige Brown, Ceramic Tiles			
4) ↓ 034B	"			
5) ↓ 034C	"			
6) M-CWT-035A	1"x1" Mult-beige, Ceramic Tile			
7) ↓ 035B	"			
8) ↓ 035C	"			
~~9) 036A~~	GB			
~~10) 036B~~	GB			
~~11) 036C~~	GB			
12) M-CAULK-037A	Caulk, Grey			
13) ↓ 037B	"			
14) ↓ 037C	"			
15) M-CFT-038A	1"x1" Multi-Colored Ceramic Tile			
16) ↓ 038B	"			
17) ↓ 038C	"			
18) M-ROOF 039A	Marven Roofing Paper + Tar			
19) ↓ 039B	"			
20) ↓ 039C	"			

1)Relinquished by:	Date 9-10-12	Time 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Page 6 of 8

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

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FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company)	Strata, Inc.
Address	8653 W Hackamore Drive
City, State, Zip Code	Boise, ID 83704
Phone 208-376-8200	FAX 208-376-8201
Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☑	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include pair type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-ACP 040A	2'x4' Acoustic Ceiling Panel, Fabric			
2) 040B	No Sample			
3) 040C				
4) M-WS- 041A	Gipsum Wall System, Smooth	9-5-12	—	—
5) 041B	"			
6) 041C	"			
7) M-CWT- 042A	LT Green, Ceramic Subway Tile			
8) 042B	"			
9) 042C	"			
10) M-CFT- 043A	1"x1" Octagonal Ceramic Floor Tile			
11) 043B	"			
12) 043C	"			
13) M-ACP- 040D	"			
14) M-CFT- 044A	2"x2" Brown Ceramic Floor Tile			
15) 044B	"			
16) 044C	"			
17) M-~~CWT~~ WG- 045A	Window Glazing			
18) WG 045B	"			
19) WG 045C	"			
20) M-CFT- 046A	12"x12" Beige + Green Ceramic Tiles			

1)Relinquished by:	Date: 9-10-12	Time: 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9-11-12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

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FIBERQUANT ANALYTICAL SERVICES

Fiberquant Analytical Services 5025 S. 33rd St.;
Phoenix, AZ 85040; Phone: 602-276-6139; FAX: 602-276-4558;
info@fiberquant.com

Analysis Request/Chain-of-Custody Form

Submitted by (Company)	Strata, Inc.
Address	8653 W Hackamore Drive
City, State, Zip Code	Boise, ID 83704
Phone 208-376-8200	FAX 208-376-8201
Email	cbrischler@stratageotech.com

Invoice to (Company)	Strata, Inc.
Address	same
City, State, Zip Code	
Phone	FAX

Contact (print)	Cristina Brischler
Sampled by (signature)	
Job Number or Project Name	Quinn Coliseum
PO Number	ON12030A

Analysis Method Requested ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush		Norm	Ext.
Asbestos by **PLM**	Improved ☐ Interim ☐ Analyze ☒ All ☐ ATPF If so then by Layer ☐ or Sample ☐ Single Layer Protocol: Yes ☐ No ☐	Urg. Rush <3 hrs ☐	<6 hrs ☐	1-3 days ☒	15-30 days ☐
Fibers by **PCM**	7400(Area) ☐ ORM (Personal) ☐	<4 hr ☐		24hr ☐	-
Asbestos by **TEM**	AIR: AHERA ☐ Mod. AHERA ☐	<6hr ☐		24 hr ☐	3-5d ☐
	Water*: Water ☐ Sludge ☐	1-2d ☐		3-5d ☐	N/A
	Annex2 : Chatfield ☐ Full ☐				
	Vacuum Dust (ASTM)	3-5d ☐		5-10d ☐	N/A
Pb by **FLAA**	Analyte: Pb Other Matrix: Filter: MCE ☐ Paint: by Area ☐ by Weight ☐ Soil ☐ Wipe ☐ Initial here certifying wipes used are ASTM E1792 compliant ☐	<6 hrs ☐		2-3 days ☐	N/A
Fungi	Air Sample: Zef ☐ Aller ☐ Oth ☐ ID/Count: Bulk ☐ Swab ☐ Tape: Qual (%) ☐ Tape:Quant (cm2) ☐	<6 hrs ☐		1-2 days ☐	N/A
	Other				
Dust	NIOSH 500 ☐	<4hr ☐		24h ☐	N/A
Other		Call		Call	

Sample Number	Description/Location (include agar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) M-CFT-046B	2"x2" Beige & Green Ceramic Tiles	9-5-12	—	—
2) ↓ 046C	"			
3) M-CWT-047A	4"x4" White & Green Ceramic Tile			
4) 047B	"			
5) ↓ 047C	"			
6) M-CBM-048A	4" Green Cove Base & Mastic			
7) 048B	"			
8) ↓ 048C	"			
9) M-CERCBM-049A	4"x4" / 1"x1" Beige Ceramic Tiles			
10) 049B	"			
11) ↓ 049C	"			
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				

1)Relinquished by:	Date: 9-10-12	Time: 0852	3)Relinquished by:	Date:	Time:
2)Received by:	Date: 9/11/12	Time: 10:40	4)Received by:	Date:	Time:
* TEM Water: Sampler's name Required by State of Arizona	Print Name				

Page 8 of 8

Review of Analysis Request (Initials) _____

Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparation.

261208688

INDUSTRIAL HYGIENE RESOURCES

Certificate of Completion

Andrew Provant

Has attended and successfully completed the
AHERA Asbestos Building Inspector
Refresher Training Course
In accordance with Title II of TSCA
40 CFR Part 763, Appendix C to Subpart E

Course Date: 2/3/2012
Certificate Number: 4598-2
Expiration Date: 2/3/2013

Dayle Lundy

Instructor: Dayle Lundy

Industrial Hygiene Resources – 8312 W. Northview St., Suite 100 – Boise, Idaho 83704
Tel: (208) 323-8287 Fax: (208) 323-0783

F 2766

THE ASBESTOS INSTITUTE

Certifies that

Cristina Brischler

has attended the EPA approved course

AHERA Refresher
Building Inspector
September 2, 2011

and successfully passed the competency exam.

Date of Examination: **September 2, 2011**

Date of Expiration: **September 2, 2012**

William T. Cavness
Director

Approved Instructor

THE ASBESTOS INSTITUTE
8102 North 23rd Avenue
Suite A
Phoenix, AZ 85021-4962
602-864-6564

This training meets all requirements for asbestos accreditation under TSCA Title II and California OSHA.

CERTIFICATE OF COMPLETION

This certificate is awarded and tested to:

Brischler, Cristina # 2012-R105

FOR SUCCESSFUL COMPLETION OF
SAFETY TRAINING CERTIFICATE PROGRAM

29CFR1910.120 (e)(8) 8 HOURS OF RE-CERTIFICATION TRAINING
30CFR48.8 8 HOURS OF RE-CERTIFICATION TRAINING

Haz Mat Safety & Fire - 412 West Walnut Place
Caldwell, ID 83605 - 208-459-8954 P/F

Greg Farrell
GREG FARRELL

2/17/2012
Date

AIHA Laboratory Accreditation Programs, LLC

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

Fiberquant Analytical Services

5025 South 33rd Street, Phoenix, AZ 85040

Laboratory ID: 101593

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories in t*he following:

LABORATORY ACCREDITATION PROGRAMS

✓	**INDUSTRIAL HYGIENE**	Accreditation Expires: 03/01/2013
✓	**ENVIRONMENTAL LEAD**	Accreditation Expires: 03/01/2013
✓	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: 03/01/2013
☐	**FOOD**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Christine Powell

Christine Powell

Chairperson, Analytical Accreditation Board

Cheryl O. Morton

Cheryl O. Morton

Director, AIHA Laboratory Accreditation Programs, LLC

Revision 10: 01/13/2011

Date Issued: 03/01/2011

Minnesota Department of Health

Environmental Laboratory Accreditation Program

Issues accreditation to

State Laboratory ID: 027-053-137

Pace Analytical Services, Inc - Mpls

1700 Elm Street SE, Suite 200

Minneapolis, MN 55414

for fields of testing listed on the laboratory's accompanying Scope of Certification in accordance with the provisions in Minnesota Laws and Rules.

Continued accreditation is contingent upon successful on-going compliance with Minnesota Statutes 144.97 to 144.98, 2003 NELAC Standard and applicable Minnesota Rules 4740.2010 to 4740.2120. The laboratory's Scope of Certification cites the specific programs, methods, analytes and matrices (i.e. fields of testing) for which MDH issues this accreditation.

This certificate is valid proof of accreditation only when associated with its accompanying Scope of Certification.

The Scope of Certification and reports of on-site inspections are on file at the Minnesota Department of Health, 601 Robert Street North, Saint Paul, Minnesota. Customers may verify the laboratory's accreditation status in Minnesota by contacting MN-ELAP at (651) 201-5200.

Effective Date: 01/04/2012

Expires: 12/31/2012

Susan R. Wyatt

Susan R. Wyatt, MN-ELAP Supervisor

Certificate Number: 377778

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101031-0

Fiberquant, Inc.

Phoenix, AZ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2012-07-01 through 2013-06-30

Effective dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)