### ASBESTOS BUILDING INSPECTION

#### LOCATION:

LIBRARY EAST 1825 SW BROADWAY PORTLAND, OREGON 97201

JUNE 23, 2008

FORENSIC ANALYTICAL PROJECT NO. PJ5592

PREPARED FOR:

PORTLAND STATE UNIVERSITY PO BOX 13175 PORTLAND, OREGON 97403

#### PREPARED BY:



Forensic Analytical Consulting Services, Inc. Portland Office 17400 SW Upper Boones Ferry Road, Suite 245 Portland, OR 97224 503/595.1001

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#### 1.0 INTRODUCTION

Forensic Analytical Specialties, Inc. performed an inspection to identify asbestos-containing building materials at the property located at 1825 SW Broadway, Portland, Oregon. Dan Rouse, Noal Kraft, and Robin Sharpe conducted the field investigation on June 5, 2008 at the direction of Kate Vance of Portland State University.

The purpose of the inspection is to determine whether ACM is present in the structures onsite. The subject property was built in 1960 and 1963, and consists of a five-story building with a basement.

This report presents the results of the asbestos inspection conducted by Forensic Analytical Consulting Services, Inc. for the above referenced project. Results of the inspection are summarized in Appendix A.

Drawings depicting ACM and sample locations are presented in Appendix B. A detailed laboratory report and chain of custody forms are contained in Appendix C.

#### 2.0 FINDINGS

The results of the samples indicate that asbestos was detected at the site. A complete table of the samples taken and materials assumed to contain asbestos can be found in Appendix A.

#### 3.0 RECOMMENDATIONS

Materials for which sample analysis by PLM results in greater than one percent asbestos (for any one sample collected from a homogeneous material) are classified as ACM under regulations promulgated by, but not limited to, the following agencies: federal EPA and federal OSHA.

The agencies use the following definitions:

Federal EPA (Oregon DEQ): materials containing greater than one percent asbestos are ACM Federal OSHA (OR-OSHA): materials containing greater than one percent asbestos are ACM

For detailed regulatory requirements in specific situations, Forensic Analytical should be consulted, or the applicable regulations should be examined.

All materials identified were classified by condition. Materials in "Good" condition should be maintained in place following the OR-OSHA operations and maintenance requirements. Materials in "Fair" condition should have patch and repair activities performed to address any damaged areas. Materials in "Poor" condition should be addressed through removal, repair and/or encapsulation.

#### 4.0 METHODS

Materials suspected of containing asbestos were sampled in accordance with the federal EPA AHERA protocols. Materials determined by the inspector to be non-suspect, such as wood, metal, glass, and fiberglass insulation, were not sampled. Destructive sample techniques were not used during the

inspection. Additional suspect building materials may be present in areas that were inaccessible, unsafe to inspect, or obscured from view during the inspection process.

Suspect materials were grouped and classified as homogeneous materials based on their appearance, usage, and age of the building. Representative samples of each homogeneous material were collected for laboratory analysis. Where previous sample data exists, one confirming sample was collected of materials that previously tested positive. Additionally, where multiple samples of a given homogeneous material were collected, the set was analyzed to first positive.

The unique sample description ID was developed specifically for PSU. The sample ID includes; the PSU building ID; the homogeneous material number; followed by a unique material code (FT = Floor Tile); and lastly the sample number.

Samples were collected in such a manner as to minimize release of the material into the surroundings. Material type, sample number, sample location and other pertinent information were recorded at the time of sampling. Each sample was placed in a sample container labeled with a unique sample number and submitted to Forensic Analytical's NVLAP-accredited laboratory for analysis under chain of custody documentation. Samples were analyzed in accordance with EPA Method 600/R-93-116, using PLM with dispersion staining and using visual area estimation to determine percent asbestos content. This method allows for the identification of the primary types of asbestos used in building materials. The lower limit of detection for this method is one percent. Samples containing less than one percent asbestos by PLM with visual area estimation are reported as Trace.

#### 5.0 LIMITATIONS

Forensic Analytical did not inspect subsurface areas for asbestos. ACM such as underground waterproofing coatings, asbestos-cement water pipe, electrical ducts, or other subsurface materials or equipment may be present beneath the site. Forensic Analytical did not disassemble building equipment; such as fans, ducts, elevator equipment, and electrical equipment. Consequently, equipment may contain untested gaskets, internal components, overspray of building materials and the like. If the aforementioned materials or any other untested suspect materials are encountered during construction or maintenance activities, they should be assumed to be asbestos-containing materials and not disturbed, unless sampling and analysis of the materials proves otherwise.

At PSU's request, the roofs were not sampled as part of this inspection. In addition, the following areas were inaccessible at the time of the survey: 18M, 55 and 120.

Forensic Analytical has performed this asbestos sampling in accordance with generally accepted methods and practices of the profession, and consistent with that level of care and skill ordinarily exercised by reputable environmental consultants under similar conditions and circumstances. No other representation, guarantee or warranty, express or implied, is included or intended in this asbestos inspection report.

Respectfully submitted,

Dan Rouse

Reviewed by,

Noal Kraft

#### **APPENDIX A**

**COMPLETE SAMPLE INVENTORY** 

| SAMPLE ID#         | MATERIAL DESCRIPTION                                           | SAMPLE LOCATION | MATERIAL LOCATION      | ASB. % AND<br>TYPE                  | APPROX.<br>QUANTITY | CONDITION |  |
|--------------------|----------------------------------------------------------------|-----------------|------------------------|-------------------------------------|---------------------|-----------|--|
| LIBE-01-FT-1       | Floor Tile, 12" x 12" Black w/<br>White Specks, and Tan Mastic | CM306           | -                      | ND                                  | -                   | -         |  |
| LIBE-02-FT-1       | Floor Tile, 12" x 12" Dark<br>Mauve Specked, and Tan<br>Mastic | CM306           | -                      | ND                                  | -                   | -         |  |
| LIBE-03-FT-1       | Floor Tile, 9" x 9" Brown<br>Specked, and Tan Mastic           | CM308           | -                      | ND                                  | -                   | -         |  |
| LIBE-04-CT-1       | Ceiling Tile, 2' x 4' Fissured w/<br>Pinholes                  | CM302           | CM302, VM302 and CM310 | 2% Chrysotile                       | 310 sq. ft.         | Fair      |  |
| LIBE-05-<br>DWJC-1 | Drywall & Joint Compound                                       | VM302           | Throughout             | ND Drywall                          | Not Quantified      | Fair      |  |
|                    |                                                                |                 |                        | 2% Chrysotile<br>Joint<br>Compound  |                     |           |  |
| LIBE-05-<br>DWJC-2 | Drywall & Joint Compound                                       | CM108           | Throughout             | ND Drywall                          | Not Quantified      | Fair      |  |
|                    |                                                                |                 |                        | 2% Chrysotile<br>Joint<br>Compound* |                     |           |  |
| LIBE-05-<br>DWJC-3 | Drywall & Joint Compound                                       | CM102           | Throughout             | ND Drywall                          | Not Quantified      | Fair      |  |
|                    |                                                                |                 |                        | 2% Chrysotile<br>Joint<br>Compound* |                     |           |  |
| LIBE-05-<br>DWJC-4 | Drywall & Joint Compound                                       | CM108           | Throughout             | ND Drywall                          | Not Quantified      | Fair      |  |
|                    |                                                                |                 |                        | 2% Chrysotile<br>Joint<br>Compound* |                     |           |  |

ND - Non-Detected Appendix A - Page 1

<sup>\*</sup> This sample is part of a set in which one of the samples tested positive for asbestos.

| SAMPLE ID#         | MATERIAL DESCRIPTION     |       |            | ASB. % AND<br>TYPE                  | APPROX.<br>QUANTITY | CONDITION |  |
|--------------------|--------------------------|-------|------------|-------------------------------------|---------------------|-----------|--|
| LIBE-05-<br>DWJC-5 | Drywall & Joint Compound | CM303 | Throughout | ND Drywall                          | Not Quantified      | Fair      |  |
|                    |                          |       |            | 2% Chrysotile<br>Joint<br>Compound* |                     |           |  |
| LIBE-05-<br>DWJC-6 | Drywall & Joint Compound | M107  | Throughout | ND Drywall                          | Not Quantified      | Fair      |  |
|                    |                          |       |            | 2% Chrysotile<br>Joint<br>Compound* |                     |           |  |
| LIBE-05-<br>DWJC-7 | Drywall & Joint Compound | C209  | Throughout | ND Drywall                          | Not Quantified      | Fair      |  |
|                    |                          |       |            | 2% Chrysotile<br>Joint<br>Compound* |                     |           |  |
| LIBE-06-PL-1       | Plaster, Wall            | CM301 | -          | ND                                  | -                   | -         |  |
| LIBE-06-PL-2       | Plaster, Wall            | 219   | -          | ND                                  | -                   | -         |  |
| LIBE-06-PL-3       | Plaster, Wall            | C4    | -          | ND                                  | -                   | -         |  |
| LIBE-06-PL-4       | Plaster, Ceiling         | C4    | -          | ND                                  | -                   | -         |  |
| LIBE-06-PL-5       | Plaster, Wall            | S114  | -          | ND                                  | -                   | -         |  |
| LIBE-06-PL-6       | Plaster, Wall            | S105  | -          | ND                                  | -                   | -         |  |

 $<sup>\</sup>mbox{ND}-\mbox{Non-Detected}$   $^*$  This sample is part of a set in which one of the samples tested positive for asbestos. Appendix A - Page 2

| SAMPLE ID#   | MATERIAL DESCRIPTION                                                         | SAMPLE LOCATION | MATERIAL LOCATION | ASB. % AND<br>TYPE | APPROX.<br>QUANTITY | CONDITION |  |
|--------------|------------------------------------------------------------------------------|-----------------|-------------------|--------------------|---------------------|-----------|--|
| LIBE-06-PL-7 | Plaster, Wall                                                                | S205            | -                 | -                  | -                   | -         |  |
| LIBE-07-CB-1 | Cove Base, 4" Brown, and<br>Brown Adhesive                                   | CM302           | -                 | ND                 | -                   | -         |  |
| LIBE-08-CT-1 | Ceiling Tile, 2' x 4' (2' x 2'<br>Pattern)                                   | M334            | -                 | ND                 | -                   | -         |  |
| LIBE-09-SU-1 | Sink Undercoating, Gray                                                      | M331            | -                 | ND                 | -                   | -         |  |
| LIBE-10-FT-1 | Floor Tile, 9" x 9" Black w/<br>White Streaks, and Tan Mastic                | SM105           | -                 | ND                 | -                   | -         |  |
| LIBE-11-ST-1 | Stair Tread, Grey, and Tan<br>Mastic                                         | S105            | -                 | ND                 | -                   |           |  |
| LIBE-12-FT-1 | Floor Tile, 12" x 12" Tan w/<br>Brown Specks, and Tan Mastic                 | CM108           | -                 | ND                 | -                   | -         |  |
| LIBE-13-FT-1 | Floor Tile, 12" x 12" Brown w/<br>Black Specks, and Tan Mastic               | M108A           | -                 | ND                 | -                   | -         |  |
| LIBE-14-CB-1 | Cove Base, 6" Black, and Tan<br>Adhesive                                     | M108A           | -                 | ND                 | -                   | -         |  |
| LIBE-15-FT-1 | Floor Tile, 12" x 12" Purple w/<br>White and Black Specks, and<br>Tan Mastic | C209            | -                 | ND                 | -                   | -         |  |
| LIBE-16-FT-1 | Floor Tile, 12" x 12" Yellow<br>Specked, and Tan Mastic                      | 209             | -                 | ND                 | -                   | -         |  |
| LIBE-17-FT-1 | Floor Tile, 12" x 12" Olive<br>Green Specked, and Tan<br>Mastic              | 209             | -                 | ND                 | -                   | -         |  |

 $<sup>\</sup>mbox{ND}-\mbox{Non-Detected}$   $^*$  This sample is part of a set in which one of the samples tested positive for asbestos.

| SAMPLE ID#    | MATERIAL DESCRIPTION                                               | SAMPLE LOCATION | MATERIAL LOCATION | ASB. % AND<br>TYPE      | APPROX.<br>QUANTITY | CONDITION |  |
|---------------|--------------------------------------------------------------------|-----------------|-------------------|-------------------------|---------------------|-----------|--|
| LIBE-18-CT-1  | Ceiling Tile, 2' x 4' Pinholes                                     | 209             | -                 | ND                      | -                   |           |  |
| LIBE-19-ST-1  | Stair Tread, Black, and Tan<br>Mastic                              | S205            | -                 | ND                      | -                   | -         |  |
| LIBE-20-FT-1  | Floor Tile, 12" x 12" Beige<br>w/Green Specks, and Black<br>Mastic | C102            | C102              | 2% Chrysotile<br>Tile   | 105 sq. ft.         | Fair      |  |
|               |                                                                    |                 |                   | ND Mastic               |                     |           |  |
| LIBE-21-FT-1  | Floor Tile, 9" x 9" Tan w/ White<br>Streaks, and Black Mastic      | 118A            | 9, 53, 118A, 218  | 5% Chrysotile<br>Tile   | 170 sq. ft.         | Fair      |  |
|               |                                                                    |                 |                   | 5% Chrysotile<br>Mastic |                     |           |  |
| LIBE-22-TSI-1 | Rigid Pipe Insulation                                              | 123             | Throughout        | 15% Amosite             | Not Quantified      | Fair      |  |
| LIBE-22-TSI-2 | Rigid Pipe Insulation                                              | 410             | Throughout        | 15% Amosite *           | Not Quantified      | Fair      |  |
| LIBE-22-TSI-3 | Rigid Pipe Insulation                                              | 410             | Throughout        | 15% Amosite *           | Not Quantified      | Fair      |  |
| LIBE-23-TSI-1 | Pipe Fitting Insulation on Rigid Insulated Pipe                    | 123             | Throughout        | 15% Amosite             | Not Quantified      | Fair      |  |
| LIBE-23-TSI-2 | Pipe Fitting Insulation on Rigid Insulated Pipe                    | 410             | Throughout        | 15% Amosite *           | Not Quantified      | Fair      |  |
| LIBE-23-TSI-3 | Pipe Fitting Insulation on Rigid Insulated Pipe                    | 410             | Throughout        | 15% Amosite *           | Not Quantified      | Fair      |  |
| LIBE-24-DST-  | Duct Seam Tape                                                     | 123             | Throughout        | 70%<br>Chrysotile       | Not Quantified      | Fair      |  |
| 1             |                                                                    |                 |                   | Chrysotile              |                     |           |  |

ND – Non-Detected \* This sample is part of a set in which one of the samples tested positive for asbestos. Appendix A - Page 4

| SAMPLE ID#   | MATERIAL DESCRIPTION                                                     | SAMPLE LOCATION | MATERIAL LOCATION         | ASB. % AND<br>TYPE      | APPROX.<br>QUANTITY | CONDITION |  |
|--------------|--------------------------------------------------------------------------|-----------------|---------------------------|-------------------------|---------------------|-----------|--|
| LIBE-25-FT-1 | Floor Tile, 9" x 9" Orange w/<br>White Streaks, and Black<br>Mastic      | S14             | 51, S14, S105             | 5% Chrysotile<br>Tile   | 180 sq. ft.         | Fair      |  |
|              |                                                                          |                 |                           | 5% Chrysotile<br>Mastic |                     |           |  |
| LIBE-26-ST-1 | Stair Tread, Orange w/ White Streaks, and Tan Mastic                     | S14             | -                         | ND                      | -                   | -         |  |
| LIBE-27-FT-1 | Floor Tile, 9" x 9" Grey w/ White Streaks, and Black Mastic              | C4              | 6B, C4, MS104, S204, S304 | 5% Chrysotile<br>Tile   | 585 sq. ft.         | Fair      |  |
|              |                                                                          |                 |                           | 5% Chrysotile<br>Mastic |                     |           |  |
| LIBE-28-FT-1 | Floor Tile, 9" x 9" Beige<br>Marbled, and Tan Mastic                     | M304            | -                         | ND                      | -                   | -         |  |
| LIBE-29-FT-1 | Floor Tile, 9" x 9" Black w/<br>Large White Streaks, and Black<br>Mastic | M301            | 18K, M301                 | 5% Chrysotile<br>Tile   | 285 sq. ft.         | Fair      |  |
|              |                                                                          |                 |                           | 5% Chrysotile<br>Mastic |                     |           |  |
| LIBE-30-FT-1 | Floor Tile, 9" x 9" Green<br>Streaked, and Black Mastic                  | 207A            | 207A                      | 5% Chrysotile<br>Tile   | 165 sq. ft.         | Fair      |  |
|              |                                                                          |                 |                           | 5% Chrysotile<br>Mastic |                     |           |  |
| LIBE-31-CT-1 | Ceiling Tile, 2' x 2' Gouged w/<br>Pinholes                              | 18J             | -                         | ND                      | -                   | -         |  |
| LIBE-32-CAB- | Perforated Cement Asbestos<br>Board Panels                               | 18L             | 18L                       | 20%<br>Chrysotile       | 65 sq. ft.          | Fair      |  |

ND - Non-Detected

<sup>\*</sup> This sample is part of a set in which one of the samples tested positive for asbestos.

| SAMPLE ID#        | MATERIAL DESCRIPTION                                | SAMPLE LOCATION | MATERIAL LOCATION | ASB. % AND<br>TYPE      | APPROX.<br>QUANTITY | CONDITION |
|-------------------|-----------------------------------------------------|-----------------|-------------------|-------------------------|---------------------|-----------|
| LIBE-33-FT-1      | Floor Tile, 9" x 9" Dusty Rose,<br>and Black Mastic | 6A              | 6A                | 5% Chrysotile<br>Tile   | 205 sq. ft.         | Fair      |
|                   |                                                     |                 |                   | 5% Chrysotile<br>Mastic |                     |           |
| LIBE-34-TSI-1     | Foam Pipe Insulation                                | 410             | -                 | ND                      | -                   | -         |
| LIBE-35-DSC-<br>1 | Duct Seam Compound, Grey                            | 410             | -                 | ND                      | -                   | -         |
| LIBE-36-FS-1      | Fire Stop, Red                                      | 410             | -                 | Chrysotile              | -                   | -         |

ND – Non-Detected \* This sample is part of a set in which one of the samples tested positive for asbestos. Appendix A - Page 6

### **APPENDIX B**

SITE DRAWING(S)

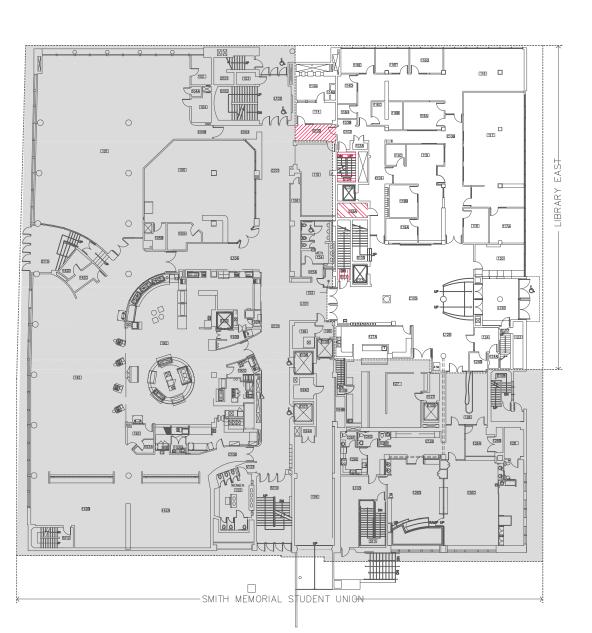




No Scale







Floor Tile, 9" x 9"' Tan w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Grey w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Black w/ Large White Streaks and Black Mastic

Floor Tile, 9" x 9" Green Streaked and Black Mastic

Floor Tile, 9" x 9" Dusty Rose and Black Mastic

Ceiling Tile, 2' x 4' Fissured w/ Pinholes - Drop

ACM not shown: Drywall and Joint Compound Rigid Pipe Insulation Pipe Fitting Insulation Duct Seam Tape

Floor Tile, 9" x 9" Orange w/ White Streaks and Black Mastic

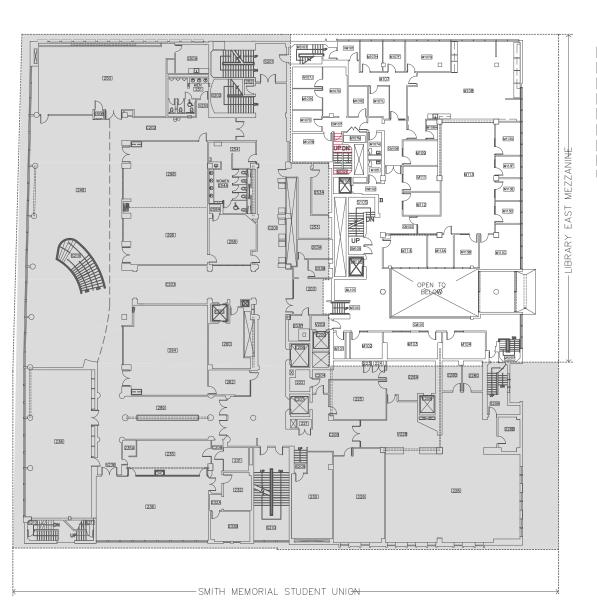
Cement Asbestos Board

Library East 1st Floor ACM Locations

Report North

No Scale





Floor Tile, 9" x 9"' Tan w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Orange w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Grey w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Black w/ Large White Streaks and Black Mastic

Floor Tile, 9" x 9" Green Streaked and Black Mastic

Floor Tile, 9" x 9" Dusty Rose and Black Mastic

Ceiling Tile, 2' x 4' Fissured w/ Pinholes - Drop

Cement Asbestos Board

ACM not shown: Drywall and Joint Compound Rigid Pipe Insulation

Pipe Fitting Insulation Duct Seam Tape

Library East 1st Floor Mezzanine ACM Locations

PSU Library 1825 S Portlan



No Scale







Floor Tile, 9" x 9"' Tan w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Black w/ Large White Streaks and Black Mastic

Floor Tile, 9" x 9" Green Streaked and Black Mastic

ACM not shown: Drywall and Joint Compound Rigid Pipe Insulation Pipe Fitting Insulation Duct Seam Tape

Floor Tile, 9" x 9" Orange w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Grey w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Dusty Rose and Black Mastic

Ceiling Tile, 2' x 4' Fissured w/ Pinholes - Drop

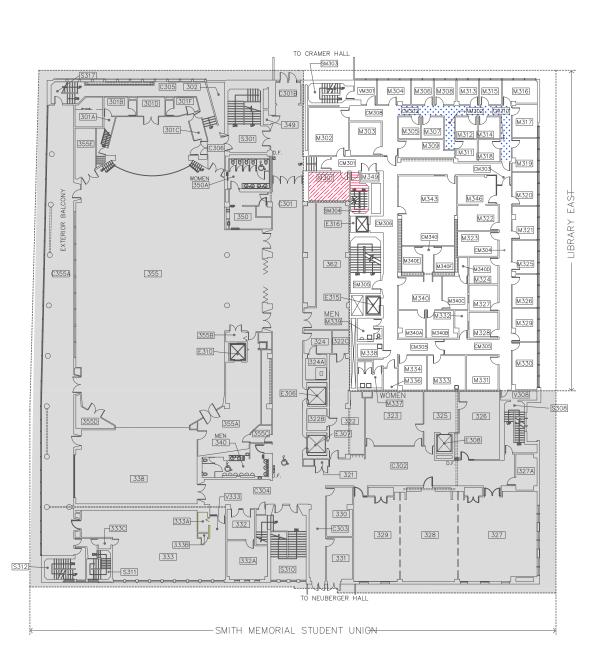
Cement Asbestos Board



No Scale







Floor Tile, 9" x 9"' Tan w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Black w/ Large White Streaks and Black Mastic

Floor Tile, 9" x 9" Green Streaked and Black Mastic

ACM not shown: Drywall and Joint Compound Rigid Pipe Insulation Pipe Fitting Insulation Duct Seam Tape

Floor Tile, 9" x 9" Orange w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Grey w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Dusty Rose and Black Mastic

Ceiling Tile, 2' x 4' Fissured w/ Pinholes - Drop

Cement Asbestos Board

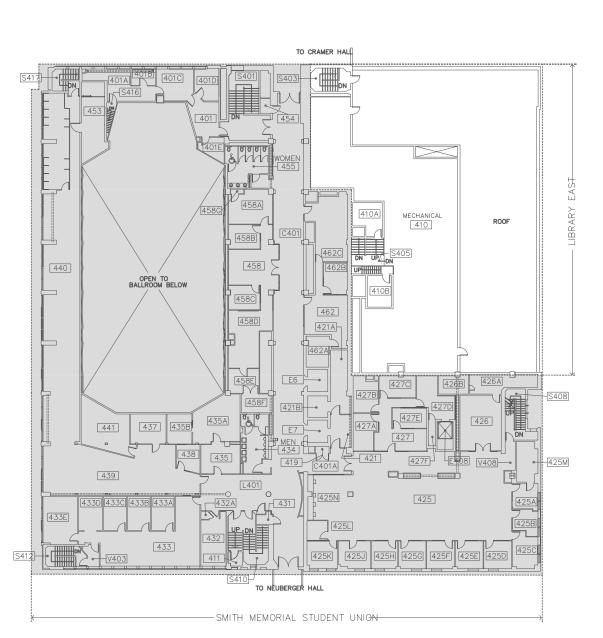
Library East 3rd Floor ACM Locations

PSU Library 1825 S Portlan



No Scale





Floor Tile, 9" x 9" Black w/ Large White Streaks and Black Mastic

Floor Tile, 9" x 9" Green Streaked and Black Mastic

Floor Tile, 9" x 9" Dusty Rose and Black Mastic

Ceiling Tile, 2' x 4' Fissured w/ Pinholes - Drop

Cement Asbestos Board

ACM not shown: Drywall and Joint Compound Rigid Pipe Insulation Pipe Fitting Insulation Duct Seam Tape

Floor Tile, 9" x 9"' Tan w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Orange w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Grey w/ White Streaks and Black Mastic

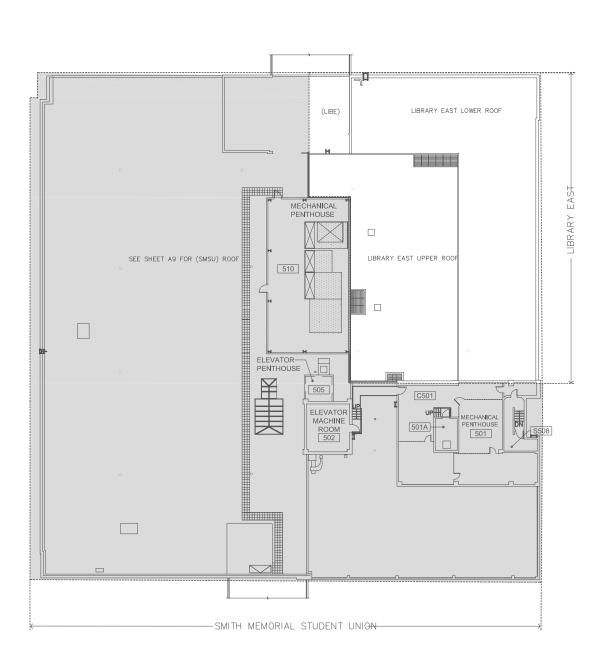
Library East 4th Floor ACM Locations



No Scale







Floor Tile, 9" x 9"' Tan w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Orange w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Grey w/ White Streaks and Black Mastic

Floor Tile, 9" x 9" Black w/ Large White Streaks and Black Mastic

Floor Tile, 9" x 9" Green Streaked and Black Mastic

Floor Tile, 9" x 9" Dusty Rose and Black Mastic

ACM not shown: Drywall and Joint Compound Rigid Pipe Insulation Pipe Fitting Insulation Duct Seam Tape

Ceiling Tile, 2' x 4' Fissured w/ Pinholes - Drop

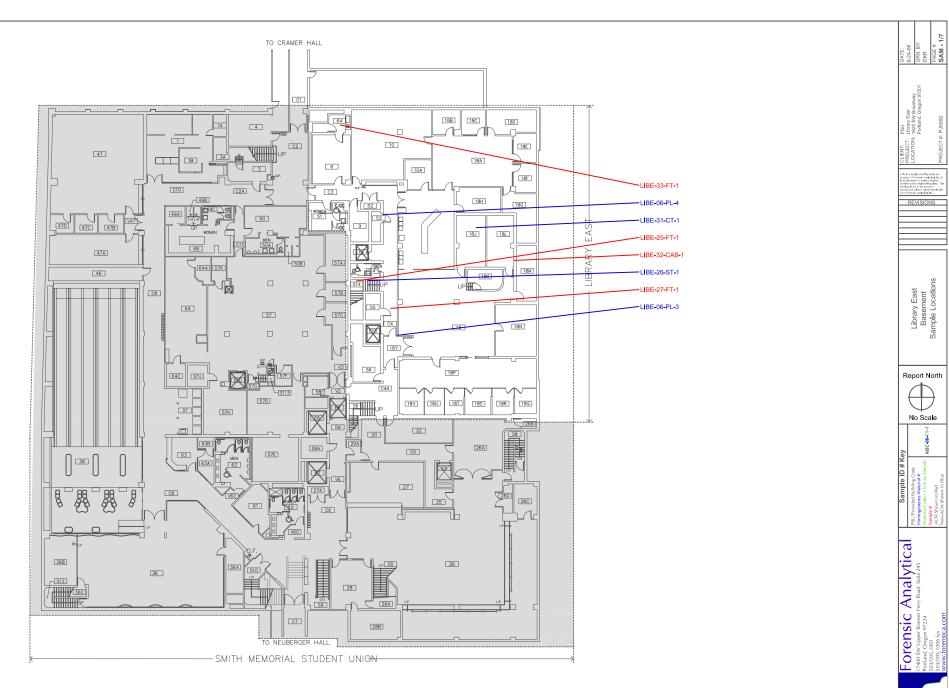
Cement Asbestos Board

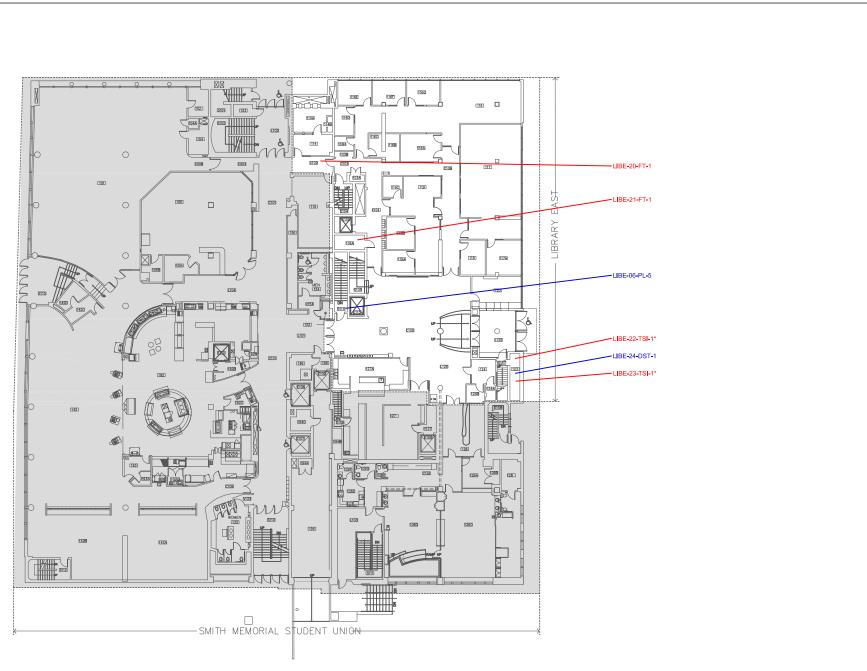


No Scale



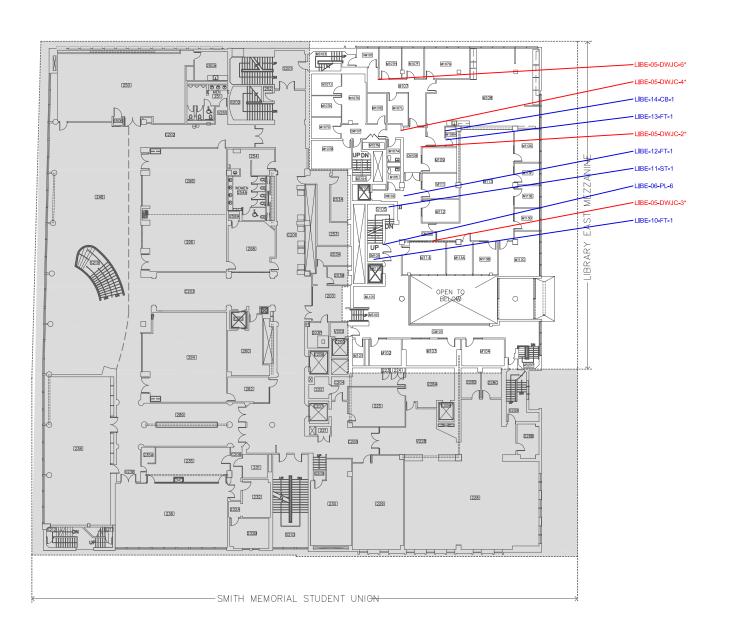






Report North

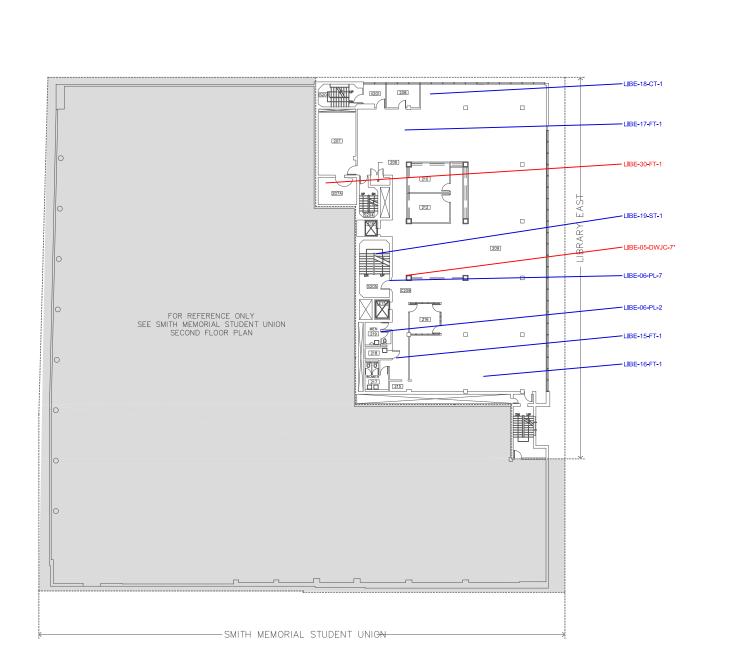
No Scale



Library East 1st Floor Mezzanine Sample Locations

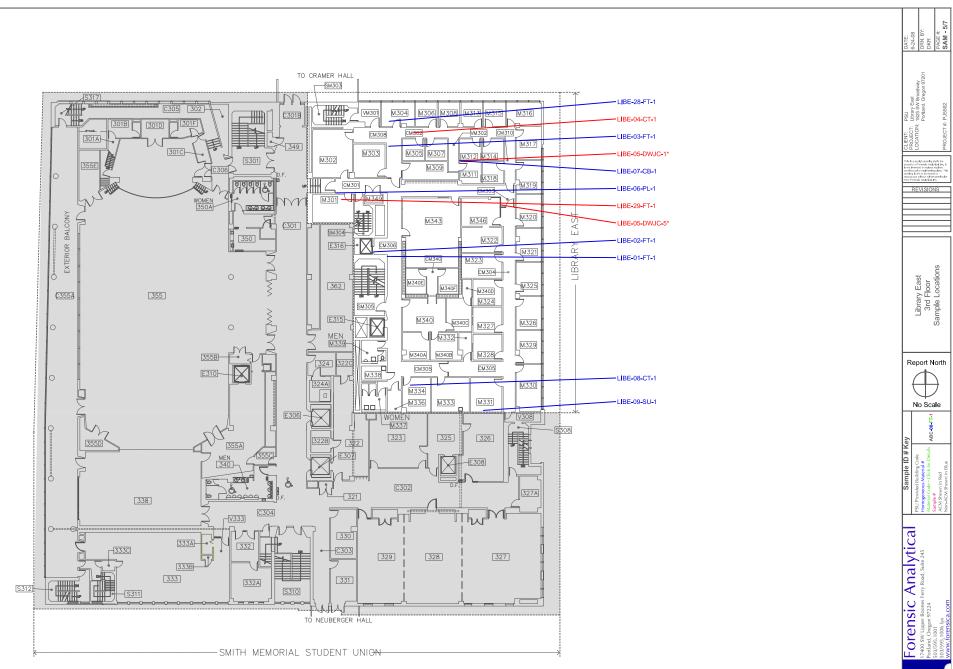
Report North

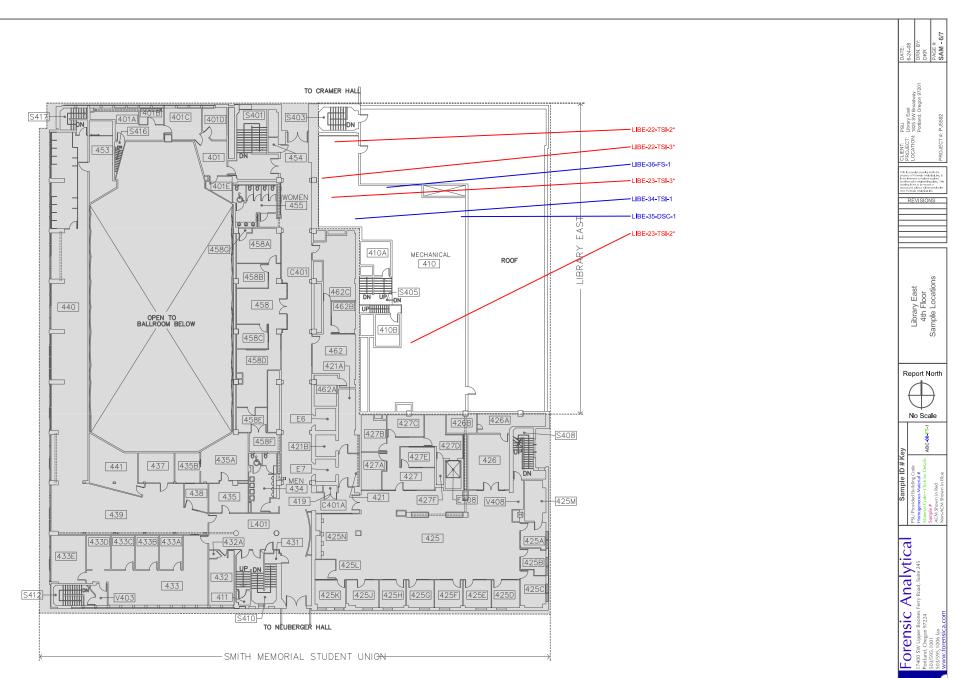
No Scale

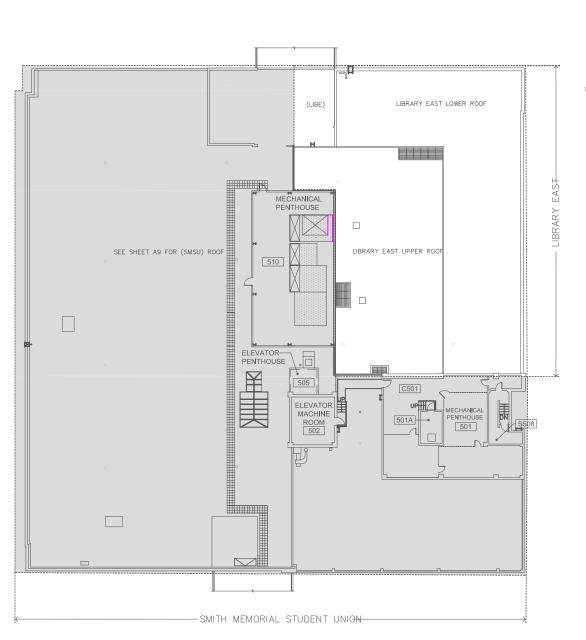




Report North No Scale







No Samples were Taken in this Area

Library East Roof Sample Locations

Report North

No Scale



### **APPENDIX C**

LABORATORY ANALYSIS REPORTS AND CHAIN OF CUSTODY RECORDS



### **Bulk Asbestos Analysis**

(EPA Method 600/R-93-116, Visual Area Estimation)

Forensic Analytical Consulting Svcs Client ID: PE21 Noal Kraft **Report Number:** B113988 17400 SW Upper Boones Ferry Rd 06/17/08 **Date Received:** Suite 245 **Date Analyzed:** 06/18/08 Durham, OR 97224 **Date Printed:** 06/18/08 First Reported: 06/18/08 Job ID/Site: PJ5592; Kate Vance Library East (LIBE) 6 floors 1825 SW Broadway Portland **FASI Job ID:** PE21 **Total Samples Submitted: 52 Date(s) Collected: Total Samples Analyzed:** Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Type Layer LIBE-01-FT-1 10767178 Layer: Black Tile **ND** Layer: Tan Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) LIBE-02-FT-1 10767179 ND Layer: Brown Tile Layer: Tan Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) LIBE-03-FT-1 10767180 ND Layer: Brown Tile Layer: Brown Mastic ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) 10767181 LIBE-04-CT-1 Layer: Beige Fibrous Tile Chrysotile 2 % Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (2%) Fibrous Glass (90 %) Cellulose (2 %) LIBE-05-DWJC-1 10767182 Layer: White Drywall ND 2 % Layer: White Joint Compound Chrysotile Total Composite Values of Fibrous Components: Asbestos (Trace) Cellulose (20 %) Fibrous Glass (10 %) LIBE-05-DWJC-2 10767183 Comment: Sample not analyzed due to prior positive result in series. LIBE-05-DWJC-3 10767184 Comment: Sample not analyzed due to prior positive result in series. LIBE-05-DWJC-4 10767185 Comment: Sample not analyzed due to prior positive result in series. LIBE-05-DWJC-5 10767186 Comment: Sample not analyzed due to prior positive result in series.

**Report Number:** B113988 **Date Printed:** 06/18/08

| Client Name: Forensic Analytical Cons                     |                               |                    | <b>Date Printed:</b> | 06/18/           | 08                  |                  |                     |
|-----------------------------------------------------------|-------------------------------|--------------------|----------------------|------------------|---------------------|------------------|---------------------|
| Sample ID                                                 | Lab Numbe                     | Asbestos<br>r Type | Percent in<br>Layer  | Asbestos<br>Type | Percent in<br>Layer | Asbestos<br>Type | Percent in<br>Layer |
| LIBE-05-DWJC-6                                            | 10767187                      |                    |                      |                  |                     |                  |                     |
| Comment: Sample not analyzed due                          | to prior positive             | result in series.  |                      |                  |                     |                  |                     |
| LIBE-05-DWJC-7 Comment: Sample not analyzed due           | 10767188<br>to prior positive | result in series.  |                      |                  |                     |                  |                     |
| LIBE-06-PL-1 Layer: White Plaster Layer: Paint            | 10767189                      |                    | ND<br>ND             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace) | omponents:                    | Asbestos (ND)      |                      |                  |                     |                  |                     |
| LIBE-06-PL-2 Layer: White Plaster Layer: Paint            | 10767190                      |                    | ND<br>ND             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace) | omponents:                    | Asbestos (ND)      |                      |                  |                     |                  |                     |
| LIBE-06-PL-3 Layer: White Plaster Layer: Paint            | 10767191                      |                    | ND<br>ND             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace) | omponents:                    | Asbestos (ND)      |                      |                  |                     |                  |                     |
| LIBE-06-PL-4 Layer: White Plaster Layer: Paint            | 10767192                      |                    | ND<br>ND             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace) | omponents:                    | Asbestos (ND)      |                      |                  |                     |                  |                     |
| LIBE-06-PL-5<br>Layer: White Plaster<br>Layer: Paint      | 10767193                      |                    | ND<br>ND             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace) | omponents:                    | Asbestos (ND)      |                      |                  |                     |                  |                     |
| LIBE-06-PL-6 Layer: White Plaster Layer: Paint            | 10767194                      |                    | ND<br>ND             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace) | omponents:                    | Asbestos (ND)      |                      |                  |                     |                  |                     |
| LIBE-06-PL-7 Layer: White Plaster Layer: Paint            | 10767195                      |                    | ND<br>ND             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace) | omponents:                    | Asbestos (ND)      |                      |                  |                     |                  |                     |

**Report Number:** B113988 **Date Printed:** 06/18/08

| Client Name: | Forensic Analytical Consulting Svcs |  |
|--------------|-------------------------------------|--|

| Chefit Ivalile. Potensie Anaryticai Consu                                   | iting 5 ves |                     |                     |                  | Date I Illiteu.     | 00/10/           | 00               |
|-----------------------------------------------------------------------------|-------------|---------------------|---------------------|------------------|---------------------|------------------|------------------|
| Sample ID                                                                   | Lab Numbe   | Asbestos<br>er Type | Percent in<br>Layer | Asbestos<br>Type | Percent in<br>Layer | Asbestos<br>Type | Percent in Layer |
| LIBE-07-CB-1                                                                | 10767196    |                     |                     |                  |                     |                  |                  |
| Layer: Brown Non-Fibrous Material                                           |             |                     | ND                  |                  |                     |                  |                  |
| Layer: Brown Mastic                                                         |             |                     | ND                  |                  |                     |                  |                  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                  | mponents:   | Asbestos (ND)       |                     |                  |                     |                  |                  |
| LIBE-08-CT-1                                                                | 10767197    |                     |                     |                  |                     |                  |                  |
| Layer: Beige Fibrous Material<br>Layer: Paint                               |             |                     | ND<br>ND            |                  |                     |                  |                  |
| Total Composite Values of Fibrous Con<br>Cellulose (35 %) Fibrous Glass (45 | •           | Asbestos (ND)       |                     |                  |                     |                  |                  |
| LIBE-09-SU-1                                                                | 10767198    |                     |                     |                  |                     |                  |                  |
| Layer: Grey Semi-Fibrous Material                                           |             |                     | ND                  |                  |                     |                  |                  |
| Total Composite Values of Fibrous Con<br>Cellulose (5 %) Synthetic (25 %)   | nponents:   | Asbestos (ND)       |                     |                  |                     |                  |                  |
| LIBE-10-FT-1                                                                | 10767199    |                     |                     |                  |                     |                  |                  |
| Layer: Black Tile                                                           |             |                     | ND                  |                  |                     |                  |                  |
| Layer: Yellow Mastic                                                        |             |                     | ND                  |                  |                     |                  |                  |
| Layer: White Non-Fibrous Material                                           |             |                     | ND                  |                  |                     |                  |                  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                  | mponents:   | Asbestos (ND)       |                     |                  |                     |                  |                  |
| LIBE-11-ST-1                                                                | 10767200    |                     |                     |                  |                     |                  |                  |
| Layer: Grey Non-Fibrous Material<br>Layer: Yellow Mastic                    |             |                     | ND<br>ND            |                  |                     |                  |                  |
| Total Composite Values of Fibrous Cor<br>Cellulose (Trace)                  | nponents:   | Asbestos (ND)       |                     |                  |                     |                  |                  |
| LIBE-12-FT-1                                                                | 10767201    |                     |                     |                  |                     |                  |                  |
| Layer: Tan Tile                                                             |             |                     | ND                  |                  |                     |                  |                  |
| Layer: Tan Mastic                                                           |             |                     | ND                  |                  |                     |                  |                  |
| Total Composite Values of Fibrous Cor<br>Cellulose (Trace)                  | nponents:   | Asbestos (ND)       |                     |                  |                     |                  |                  |
| LIBE-13-FT-1                                                                | 10767202    |                     |                     |                  |                     |                  |                  |
| Layer: Brown Tile                                                           |             |                     | ND                  |                  |                     |                  |                  |
| Layer: Tan Mastic                                                           |             |                     | ND                  |                  |                     |                  |                  |
| Total Composite Values of Fibrous Cor<br>Cellulose (Trace)                  | nponents:   | Asbestos (ND)       |                     |                  |                     |                  |                  |
| LIBE-14-CB-1                                                                | 10767203    |                     |                     |                  |                     |                  |                  |
| Layer: Black Non-Fibrous Material Layer: White Mastic                       |             |                     | ND<br>ND            |                  |                     |                  |                  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                  | mponents:   | Asbestos (ND)       |                     |                  |                     |                  |                  |
|                                                                             |             |                     |                     |                  |                     |                  |                  |

Report Number: B113988

|                                                  |          |            |          | Keport Number        | r: D1139 | 100  |
|--------------------------------------------------|----------|------------|----------|----------------------|----------|------|
| Client Name: Forensic Analytical Consulting Svcs |          |            |          | <b>Date Printed:</b> | 06/18/   | ′08  |
|                                                  | Achestos | Percent in | Achaetae | Dercent in           | Achaetae | Doro |

| Sample ID                                                                 | Lab Numbe                     | Asbestos<br>r Type       | Percent in Layer | Asbestos<br>Type | Percent in<br>Layer | Asbestos<br>Type | Percent in<br>Layer |
|---------------------------------------------------------------------------|-------------------------------|--------------------------|------------------|------------------|---------------------|------------------|---------------------|
| LIBE-15-FT-1 Layer: Purple Tile Layer: Yellow Mastic                      | 10767204                      |                          | ND<br>ND         |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace)                 | omponents:                    | Asbestos (ND)            |                  |                  |                     |                  |                     |
| LIBE-16-FT-1 Layer: Yellow Tile Layer: Yellow Mastic                      | 10767205                      |                          | ND<br>ND         |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace)                 | omponents:                    | Asbestos (ND)            |                  |                  |                     |                  |                     |
| LIBE-17-FT-1 Layer: Green Tile Layer: Yellow Mastic                       | 10767206                      |                          | ND<br>ND         |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace)                 | omponents:                    | Asbestos (ND)            |                  |                  |                     |                  |                     |
| LIBE-18-CT-1  Layer: Beige Fibrous Material  Layer: Paint                 | 10767207                      |                          | ND<br>ND         |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (35 %) Fibrous Glass (4 | _                             | Asbestos (ND)            |                  |                  |                     |                  |                     |
| LIBE-19-ST-1 Layer: Black Non-Fibrous Material Layer: Yellow Mastic       | 10767208                      |                          | ND<br>ND         |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace)                 | omponents:                    | Asbestos (ND)            |                  |                  |                     |                  |                     |
| LIBE-20-FT-1<br>Layer: Beige Tile<br>Layer: Black Mastic                  | 10767209                      | Chrysotile               | 2 %<br>ND        |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace)                 | omponents:                    | Asbestos (2%)            |                  |                  |                     |                  |                     |
| LIBE-21-FT-1<br>Layer: Tan Tile<br>Layer: Black Mastic                    | 10767210                      | Chrysotile<br>Chrysotile | 5 %<br>5 %       |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace)                 | omponents:                    | Asbestos (5%)            |                  |                  |                     |                  |                     |
| LIBE-22-TSI-1<br>Layer: Off-White Semi-Fibrous Mater                      | 10767211<br>rial              | Amosite                  | 15 %             |                  |                     |                  |                     |
| Total Composite Values of Fibrous Co<br>Cellulose (Trace)                 | omponents:                    | Asbestos (15%)           |                  |                  |                     |                  |                     |
| LIBE-22-TSI-2 Comment: Sample not analyzed due t                          | 10767212<br>to prior positive | e result in series.      |                  |                  |                     |                  |                     |
| LIBE-22-TSI-3  Comment: Sample not analyzed due t                         | 10767213<br>to prior positive | e result in series.      |                  |                  |                     |                  |                     |

**Report Number:** B113988 **Date Printed:** 06/18/08

| Client Name: Forensic Analytical Consulting Svcs                           |                            |                          |                  |                  |                     | <b>Date Printed:</b> 06/18/08 |                  |  |
|----------------------------------------------------------------------------|----------------------------|--------------------------|------------------|------------------|---------------------|-------------------------------|------------------|--|
| Sample ID                                                                  | Lab Number                 | Asbestos<br>Type         | Percent in Layer | Asbestos<br>Type | Percent in<br>Layer | Asbestos<br>Type              | Percent in Layer |  |
| LIBE-23-TSI-1<br>Layer: Off-White Semi-Fibrous Materia                     | 10767214<br>al             | Amosite                  | 15 %             |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                 | nponents:                  | Asbestos (15%)           |                  |                  |                     |                               |                  |  |
| LIBE-23-TSI-2 Comment: Sample not analyzed due to                          | 10767215<br>prior positive | result in series.        |                  |                  |                     |                               |                  |  |
| LIBE-23-TSI-3  Comment: Sample not analyzed due to                         | 10767216<br>prior positive | result in series.        |                  |                  |                     |                               |                  |  |
| LIBE-24-DST-1<br>Layer: Grey Fibrous Material                              | 10767217                   | Chrysotile               | 70 %             |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (15 %) Synthetic (15 %) | nponents:                  | Asbestos (70%)           |                  |                  |                     |                               |                  |  |
| LIBE-25-FT-1<br>Layer: Red Tile<br>Layer: Black Mastic                     | 10767218                   | Chrysotile<br>Chrysotile | 5 %<br>5 %       |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                 | nponents:                  | Asbestos (5%)            |                  |                  |                     |                               |                  |  |
| LIBE-26-ST-1 Layer: Red Non-Fibrous Material Layer: Brown Mastic           | 10767219                   |                          | ND<br>ND         |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                 | nponents:                  | Asbestos (ND)            |                  |                  |                     |                               |                  |  |
| LIBE-27-FT-1<br>Layer: Grey Tile<br>Layer: Black Mastic                    | 10767220                   | Chrysotile<br>Chrysotile | 5 %<br>5 %       |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                 | nponents:                  | Asbestos (5%)            |                  |                  |                     |                               |                  |  |
| LIBE-28-FT-1<br>Layer: Grey Tile<br>Layer: Brown Mastic                    | 10767221                   |                          | ND<br>ND         |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                 | nponents:                  | Asbestos (ND)            |                  |                  |                     |                               |                  |  |
| LIBE-29-FT-1<br>Layer: Black Tile<br>Layer: Black Mastic                   | 10767222                   | Chrysotile<br>Chrysotile | 5 %<br>5 %       |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                 | nponents:                  | Asbestos (5%)            |                  |                  |                     |                               |                  |  |
| LIBE-30-FT-1 Layer: Green Tile Layer: Black Mastic                         | 10767223                   | Chrysotile<br>Chrysotile | 5 %<br>5 %       |                  |                     |                               |                  |  |
| Total Composite Values of Fibrous Con<br>Cellulose (Trace)                 | nponents:                  | Asbestos (5%)            |                  |                  |                     |                               |                  |  |

**Report Number:** B113988 Client Name: Forensic Analytical Consulting Svcs **Date Printed:** 06/18/08 Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID Lab Number Type Layer Type Layer Layer Type LIBE-31-CT-1 10767224 Layer: Beige Fibrous Material ND ND Layer: Paint Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (35 %) Fibrous Glass (45 %) 10767225 LIBE-32-CAB-1 Layer: Grey Semi-Fibrous Material Chrysotile 20 % Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (20%) Cellulose (Trace) **LIBE-33-FT-1** 10767226 Chrysotile 5 % Layer: Brown Tile Layer: Black Mastic Chrysotile 5 % Total Composite Values of Fibrous Components: Asbestos (5%) Cellulose (Trace) LIBE-34-TSI-1 10767227 ND Layer: Black Non-Fibrous Material Layer: Foil ND Layer: Black Tar ND Layer: Tan Fibrous Material ND Layer: Paint ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (5 %) LIBE-35-DSC-1 10767228 Layer: Grey Non-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND) Cellulose (Trace) LIBE-36-FS-1 10767229 Layer: Red Semi-Fibrous Material ND Total Composite Values of Fibrous Components: Asbestos (ND)



Cellulose (Trace)

Fibrous Glass (10 %)

James Flores, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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Forensic Analytical

### BULK SAMPLE REQUEST FORM

Page of O

|                     | FACS Portland<br>State University                                                                                                                                                  | Sampled by: DK-P PM: Noal                                    | Kraft Date: 6-5-08                             |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------|
| Contact: Noal       | Kraft Phone: (503) 595-1001                                                                                                                                                        | Special Instructions: E-mail results to NKraft@forensica.com | and tracy@forensica.com                        |
| Site: <b>PJ5592</b> | Kate Vance<br>Library East (LIBE)                                                                                                                                                  | Turnaround Time: 1-Day 2-Day 3-Day 5-Day                     | y Other Due Date & Time:                       |
| Client No.: C60     | 007 FACS Job#: PJ5592                                                                                                                                                              | Analysis: PLM Standard / Point Count / Flame AA (Pb) /       | Other: Analyze brancheted sets to 1st positive |
| Sample Number       | Material Description                                                                                                                                                               | Sample Location                                              | Friable Cond. Quantity                         |
| LIBEOI-FT-1         | FT,12x12, black volunthe specks  (tan)  FT,12x12, dark nown specked  (tan)  FT,9x9, brown specked (ten)                                                                            | Cm306                                                        |                                                |
| 02-FT-)             | FT, 12x12, don't now spected (tan)                                                                                                                                                 | cm306                                                        |                                                |
|                     |                                                                                                                                                                                    | Cm308                                                        |                                                |
| 64-CT-1             | CT, 2x4, F/P                                                                                                                                                                       | cm302                                                        |                                                |
| 05-12456-1          | DNJC                                                                                                                                                                               | cm306                                                        |                                                |
| وَ ا                |                                                                                                                                                                                    | CM108                                                        |                                                |
| 3                   |                                                                                                                                                                                    | MIOS                                                         |                                                |
| Ų                   |                                                                                                                                                                                    | M105                                                         |                                                |
| 🕴 s                 |                                                                                                                                                                                    | C.W303                                                       |                                                |
| DE WAR              | V                                                                                                                                                                                  | M107                                                         |                                                |
|                     | ound FT-Floor Tile FTM - Floor Tile Mastic BBM - Baseboard Mastic - Ceiling Tile SAAM - Spray-Applied Acoustical Material WT - Wall Texture - Airborne UPS US Mail Courier XXX Dro | Off Other:                                                   | Friable Good /<br>Yes / No Fair / Poor         |
| Relinquished by:    | Light                                                                                                                                                                              | Received by:                                                 | · nast                                         |
| Date & Time:        | 6-16-09                                                                                                                                                                            | Date & Time: 0117108                                         | 1090 17 Condition Acceptable for               |



FACS Portland

#### BULK SAMPLE REQUEST FORM

|                     | FACS Portland tate University                                                                                                                                                         | Sampled by: DKR PM: Noal                                                             | Kraft Date: 6566 6508                  |  |  |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------|--|--|
| Contact: Noal       | Kraft Phone: (503) 595-1001                                                                                                                                                           | Special Instructions: E-mail results to NKraft@forensica.com and Tracy@forensica.com |                                        |  |  |
| Site: <b>PJ5592</b> | Kate Vance<br>Library East (LIBE)                                                                                                                                                     | Turnaround Time: 1-Day 2-Day 3-Day 5-Day                                             | Other Due Date & Time:                 |  |  |
| Client No.: C60     | 07 FACS Job#: PJ5592                                                                                                                                                                  | Analysis: PLM Standard / Point Count / Flame AA (Pb) /                               | Other: Analyza bracketed sets          |  |  |
| Sample Number       | Material Description                                                                                                                                                                  | Sample Location                                                                      | Friable Cond. Quantity                 |  |  |
| 11BE05-DW5C-7       |                                                                                                                                                                                       | C209                                                                                 |                                        |  |  |
| 06-PL-1             | Plaster                                                                                                                                                                               | CM306                                                                                |                                        |  |  |
| 2                   |                                                                                                                                                                                       | 219                                                                                  |                                        |  |  |
| 3                   |                                                                                                                                                                                       | CH                                                                                   |                                        |  |  |
| 4                   |                                                                                                                                                                                       | СЧ                                                                                   |                                        |  |  |
| 5                   |                                                                                                                                                                                       | Suy                                                                                  |                                        |  |  |
| 6                   |                                                                                                                                                                                       | 5105                                                                                 |                                        |  |  |
| 17                  |                                                                                                                                                                                       | Saus                                                                                 |                                        |  |  |
| 07-03-1             | CB, 4" brown (brown) CT, 224, 272 pettern pinho                                                                                                                                       | Cm306                                                                                |                                        |  |  |
| 08-67-1             | CT, 224, 272 pettern pink                                                                                                                                                             | M334                                                                                 |                                        |  |  |
|                     | amd FT - Floor Tile FTM - Floor Tile Mastic BBM - Baseboard Mastic  - Ceiling File SAAM - Spray - Applied Accestical Material WT - Wall Texture  Airborne UPS US Mail Courier XXX Dra | op OffOther:                                                                         | Friable Good /<br>Yes / No Fair / Poor |  |  |
| Relinquished by:    | Kisty                                                                                                                                                                                 | Received by:                                                                         |                                        |  |  |
| Date & Time:        | 6-16-08                                                                                                                                                                               | Date & Time: 6/17/68                                                                 | 1050AF Condition Acceptable (Yes) No   |  |  |



#### **BULK SAMPLE REQUEST FORM**

|                                                      | <u>.</u>                         | <del>-</del>                    | 148 J W VO                     |
|------------------------------------------------------|----------------------------------|---------------------------------|--------------------------------|
| Client: PE21 FACS Portland Portland State University | Sampled by: DK-C                 | PM: <b>Noal</b>                 | Kraft Date:                    |
| Contact: Noal Kraft Phone: (503) 595-1001            | Special Instructions: E-mail res | rults to NKraft@forensica.com   | and firacy@forensica.com       |
| Site: PJ5592 Kate Vance<br>Library East (LIBE)       | Turnaround Time:                 | 2-Day 3-Day 5-Day               | Other Due Date & Time:         |
| Client No.: C6007 FACS Job#: PJ5592                  | Analysis: PLM Standard           | / Point Count / Flame AA (Pb) / | Other: Analyza fractisted sets |
| Sample Number Material Description                   |                                  | Sample Location                 | Friable Cond. Quantity         |

| Sample Number                | Material Description                                                                                                                          |       | Sample Location | Friable             | Cond.                 | Quantity |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------|---------------------|-----------------------|----------|
| IBE -09-5U-1                 | SU, gray                                                                                                                                      | M331  |                 |                     |                       |          |
| 10-FI-1                      | FT, 9×9, blacker / white<br>streets (tan)<br>St, grey                                                                                         | 5m105 |                 |                     |                       |          |
| 11-ST-1                      | St, grey                                                                                                                                      | 5105  |                 |                     |                       |          |
| 12 FF-1                      | FT, 12 x 12 ton of brown specks                                                                                                               | Cm108 |                 |                     |                       |          |
| 13-FT-1                      | FT, 12x12, brown w/ black<br>specks (ten)<br>CB, 6" black (ton)                                                                               | MIOSA |                 |                     |                       |          |
|                              |                                                                                                                                               | MIOSA |                 |                     |                       |          |
| 15-FT-1                      | FT, 12×12, purple m/ white +<br>black specks (ten)<br>FT, 12×12, yellow specked (ton)                                                         | C209  |                 |                     |                       |          |
|                              |                                                                                                                                               | 209   |                 |                     |                       |          |
| 17-FT-1                      | FT 12×12, green olive specked<br>(tan)<br>CT, 2×4 pintudes                                                                                    | 209   |                 |                     |                       |          |
| ¥ 18-CF                      | CT, 2x4 pintules                                                                                                                              | 209   |                 |                     |                       |          |
| VB Walfboard JC - Joint Comp | ound FT - Floor Tile FTM - Floor Tile Mastic BBM - Baseboard Mastic - Ceiling Tile SAAM - Spray-Applied Acoustical Material WT - Wall Texture |       |                 | Frieble<br>Yes / No | Good /<br>Fair / Poor |          |

6-16-08 Date & Time:

Date & Time:

Condition Acceptable Yes No

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### BULK SAMPLE REQUEST FORM

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|                  | FACS Portland<br>State University                                                                                                                                                      | Sampled by: DK-R                                       | PM: Noal Kraft Date:        | <del>6</del> 508               |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------|--------------------------------|
| Contact: Noal    | Kraft Phone: (503) 595-1001                                                                                                                                                            | Special Instructions: E-mail results to NKraft@forensi | ca.com and thracy@foren     | sica.com                       |
| Site: PJ5592     | Kate Vance<br>Library East (LIBE)                                                                                                                                                      | Turnaround Time: 1-Day 2-Day 3-D                       |                             | Due Date & Time:               |
| Client No.: C6(  | 007 FACS Job#: PJ5592                                                                                                                                                                  | Analysis: PLM Standard / Point Count / Flan            | ne AA (Pb) / Other: Analyza | bracketed sets<br>1st positive |
| Sample Number    | Material Description                                                                                                                                                                   | Sample Location                                        | Friable (                   | Cond. Quantity                 |
| LIBE-19-5T-1     | Stantread, black                                                                                                                                                                       | S205                                                   |                             |                                |
| रे०-च्य-।        | 12 Kil Beige W/ Creen SPHS+ BL                                                                                                                                                         | C107                                                   |                             |                                |
| 21-15-1          | end the where served                                                                                                                                                                   | 118 A                                                  |                             |                                |
| 1-27-12-1        | Pile ins                                                                                                                                                                               | 123                                                    |                             |                                |
| 1 2              |                                                                                                                                                                                        | 123                                                    |                             |                                |
| 1 3              |                                                                                                                                                                                        | 123                                                    |                             |                                |
| <i>मुन्द्र</i> । | Pipe Firmy MS on River inspire                                                                                                                                                         | 123                                                    |                             |                                |
| 1                | , , ,                                                                                                                                                                                  | 153                                                    |                             |                                |
| <b>V</b> 3       |                                                                                                                                                                                        | 123                                                    |                             |                                |
| ¥ 24-357-1       | Duct Seem rate                                                                                                                                                                         | 125                                                    |                             |                                |
|                  | and FT - Floor Tile FTM - Floor Tile Mastic BBM - Baneboard Mastic - Ceiling Tile SAAM - Spray - Applied Acoustical Maserial WT - Wall Texture  APPOINTE LIPS US Mail Courier XXX Drop | Off Other:                                             |                             | Good /<br>uir / Poor           |
| Relinquished by: | Kalsi                                                                                                                                                                                  | Received by:                                           |                             |                                |
| Date & Time:     | 6-16-08                                                                                                                                                                                | Date & Time: 6/17/                                     | of more                     | Condition Acceptable Yes No    |

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### Forensic Analytical

### BULK SAMPLE REQUEST FORM

Page \$5 of \$6

| Client PE21                                                                              | FACS Portland                                                                                                                                                                    |                                                              | Tage 6 3 of 46                      |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------|
|                                                                                          | State University                                                                                                                                                                 | Sampled by: DKR PM: No.                                      | 6- 3- 0 B                           |
| Contact: Noal                                                                            | Kraft Phone: (503) 595-1001                                                                                                                                                      | Special Instructions: E-mail results to NKraft@forensica.com | and tracy@forensica.com             |
| Site: PJ5592                                                                             | Kate Vance Library East (LIBE)                                                                                                                                                   | Turnaround Time: 1-Day 2-Day 3-Day                           | 5-Day Other Due Date & Time:        |
| Client No.: C6                                                                           | 007 FACS Job#: PJ5592                                                                                                                                                            | Analysis: PLM Standard / Point Count / Flame AA (Pb)         | o) / Other: Analyza breakted set    |
| Sample Number                                                                            | Material Description                                                                                                                                                             | Sample Location                                              | Friable Cond. Quantity              |
| CIK . 25-17-1                                                                            | FT, 9x4 URANGE W/WH STAKS + DLMA                                                                                                                                                 | 514                                                          |                                     |
|                                                                                          | ST CRANGE W/WH STOKE BEINGS                                                                                                                                                      | Siy                                                          |                                     |
|                                                                                          | FT, 9x9, Deign marthed (tom)                                                                                                                                                     | CH                                                           |                                     |
|                                                                                          |                                                                                                                                                                                  | M304                                                         |                                     |
| 29-FT-1                                                                                  | FT,9x9, black w/ large white<br>stroots (ton)<br>FT,9x9, green streaked (black)                                                                                                  | M 301                                                        |                                     |
| 30-FT-1                                                                                  | FT,9x9, green streaked (black)                                                                                                                                                   | 207A                                                         |                                     |
| 31-CT-1                                                                                  | CT, 2x2,6/P                                                                                                                                                                      | 187                                                          |                                     |
| 32-CAB-1                                                                                 | CAB                                                                                                                                                                              | 18M                                                          |                                     |
| J i                                                                                      | AT,9x9 dusty rose (Llack)                                                                                                                                                        | 6A                                                           |                                     |
| V 34.75E                                                                                 | From Pipe insul.                                                                                                                                                                 | 410                                                          |                                     |
| WB Walthoard IC - Joint Compose RSF - Festilient Sheet Flooring CT - Shipped via: Fed Ex | nd FT Floor Tile FTM - Floor Tile Mastic BBM - Baseboard Mastic Ceiling Tile SAAM - Spray-Applied Acoustical Material WT - Wall Texture  Airborne USS US Mail Courier XXX Drop O | off Other:                                                   | Friable Gond / Yes / No Fair / Poor |
| Relinguished by:                                                                         | tall                                                                                                                                                                             | Received by:                                                 |                                     |
| Date & Time:                                                                             | 6-16-08                                                                                                                                                                          | Date & Time: 6/17/08                                         | work                                |
|                                                                                          |                                                                                                                                                                                  |                                                              | Condition Acceptable Co. No.        |

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#### Forensic Analytical

### BULK SAMPLE REQUEST FORM

Page 6 of

| PE21 FACS Portland Portland State University  Sampled by: DKR  PM: Noal Kraft Date: 6568                                                                                                                                                                   |                                                                                      |                                        |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------|--|--|
| Contact: Noal Kraft Phone: (503) 595-1001                                                                                                                                                                                                                  | Special Instructions: E-mail results to NKraft@forensica.com and Tracy@forensica.com |                                        |  |  |
| Site: PJ5592 Kate Vance<br>Library East (LIBE)                                                                                                                                                                                                             | Turnaround Time: 1-Day 2-Day 3-Day                                                   | 5-Day Other Due Date & Time:           |  |  |
| Client No.: C6007 FACS Job#: PJ5592                                                                                                                                                                                                                        | Analysis: PLM Standard / Point Count / Flame A                                       | (Pb) / Other: Analyza handested sets   |  |  |
| Sample Number Material Description                                                                                                                                                                                                                         | Sample Location                                                                      | Friable Cond. Quantity                 |  |  |
| LIBE-35-DSC-1 Duct seem compound, greey                                                                                                                                                                                                                    | 410                                                                                  |                                        |  |  |
| V 36-F5-1 Firestopy red                                                                                                                                                                                                                                    | 410                                                                                  |                                        |  |  |
|                                                                                                                                                                                                                                                            |                                                                                      |                                        |  |  |
|                                                                                                                                                                                                                                                            |                                                                                      |                                        |  |  |
|                                                                                                                                                                                                                                                            |                                                                                      |                                        |  |  |
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|                                                                                                                                                                                                                                                            |                                                                                      |                                        |  |  |
|                                                                                                                                                                                                                                                            |                                                                                      |                                        |  |  |
|                                                                                                                                                                                                                                                            |                                                                                      |                                        |  |  |
|                                                                                                                                                                                                                                                            |                                                                                      |                                        |  |  |
| WB Wallboard K - Joint Compound FT - Floor Tile FTM - Floor Tile Mastic BBM - Baseboard Mas<br>RSF - Festilicot Shoot Flooring CT - Ceiting Tile SAAM - Spray-Applied Acoustical Material WT - Wall'<br>Shipped via: Fed Ex Auborne UPS US Mail Courier XX | cxhire                                                                               | Friable Gond /<br>Yes / No Fair / Poor |  |  |
| Relinquished by:                                                                                                                                                                                                                                           | Received by:                                                                         |                                        |  |  |
| Date & Time: 6-16-08                                                                                                                                                                                                                                       | Date & Time: U/T//78                                                                 | 10004. F Condition Acceptable See No   |  |  |

### **APPENDIX D**

**GLOSSARY OF TERMS** 

#### **GLOSSARY OF TERMS**

**ACM - Asbestos-containing material:** Any material containing more than one percent asbestos. This includes suspect and/or presumed ACM.

**AHERA:** Asbestos Hazard Emergency Response Act of 1986.

**AHERA Building Inspector:** A person who has successfully completed the training requirements for a building inspector established by EPA Asbestos Model Accreditation Plan; Interim Final Rule (40 CFR Part 763, Appendix C to Subpart E, I.B.3) and whose certification is current.

**AHERA Project Designer:** A person who has successfully completed the training requirements for an asbestos abatement project designer established by EPA regulations (40 CFR 763.90(g)) and whose certification is current.

**Asbestos:** Chrysotile, amosite, crocidolite, tremolite, anthophyllite, actinolite and any of these minerals that have been chemically treated and/or altered.

**Asbestos Building Inspection:** A written report describing an inspection using the procedures contained in EPA regulations (40 CFR 763,86) to determine whether materials or structures to be worked on, renovated, removed, or demolished (including materials on the outside of structures) contain asbestos.

**Authorized Person:** Any person authorized by the employer and required by work duties to be present in regulated areas.

**Chain of Custody Record:** Legal documentation that follows samples from collection to the laboratory indicating who has been in possession of the samples.

**Competent Person:** A person capable of identifying asbestos hazards, selecting appropriate control strategies and having the authority to take prompt corrective measures. Additionally, for Class I and Class II work, one who is specially trained in a training course meeting the criteria of EPA's Model Accreditation Plan (40 CFR 763) for project designer or supervisor, or its equivalent and, for Class II work, who is trained in an operations and Maintenance O & M Course developed by EPA (40 CFR 76392 (a) (2)).

**Contractor:** The asbestos abatement contractor.

**EPA:** United States Environmental Protection Agency

**Friable:** Asbestos-containing material that can be crumbled, pulverized or reduced to powder when dry, by hand pressure.

**HEPA - High-Efficiency Particulate Air (Filter):** A filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter.

**Intact:** ACM that has not crumbled, been pulverized, or otherwise deteriorated so that its no longer likely to be bound within its matrix.

LF: Linear feet

**NESHAPs:** National Emission Standard for Hazardous Air Pollutants, 40 CFR part 61.

**NVLAP:** National Voluntary Laboratory Accreditation Program

**OSHA:** United States Department of Labor - Occupational Safety and Health Administration.

**Owner:** The legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building and/or facility in which the abatement activities described in this document take place.

**Owners Representative:** A person authorized by the Owner to act on the Owners behalf.

**PLM:** Polarized Light Microscopy

**PACM - Presumed Asbestos Containing Material:** Thermal system insulation and surfacing material found in buildings constructed no later than 1980. The designation of a material as PACM may be rebutted through PLM analysis of samples obtained by certified inspectors.

**Removal:** All operations where ACM and/or PACM is taken out or stripped from structures or substrate, and includes demolition operations.

**Sq. Ft.:** Square feet

**Surfacing Material:** Material that is sprayed, troweled-on or otherwise applied to surfaces.

**Suspect ACBM:** Material that is suspected of containing asbestos that has not been sampled and analyzed for asbestos content.

**TSI - Thermal System Insulation:** ACM applied to pipes, fittings, boilers, breaching, tanks, ducts or other structural components to prevent heat loss or gain.

### **APPENDIX E**

**ACCREDITATION** 



This is to certify that

Dan K. Rouse

has satisfactorily completed 4 hours of refresher training as an

**Asbestos Building Inspector** 

to comply with the training requirements of TSCA Title II / 40 CFR 763 (AHERA)

Certificate Number: 1029792

Instructor

EPA Provider Cert, Number: 1085



Jun 18, 2008

Date(s) of Training

Exam Score: NA

Expiration Date: Jun 18, 2009

Argus Pacific, Inc. • 1900 W. Nickerson, Suite 315 • Seattle, Washington • 98119 • (206) 285.3373 • fax (206) 285.3927



This is to certify that

Noal C. Kraft

has satisfactorily completed 4 hours of refresher training as an

**Asbestos Building Inspector** 

to comply with the training requirements of TSCA Title II / 40 CFR 763 (AHERA)

Certificate Number: 10267132

Instructor

EPA Provider Cert. Number: 1085



Jul 18, 2007

Date(s) of Training

Exam Score: NA

Expiration Date: Jul 17, 2008

Argus Pacific, Inc. • 1900 W. Nickerson, Suite 315 • Seattle, Washington • 98119 • (206) 285.3373 • fax (206) 285.3927

# Certificate of Completion

This is to certify that

## Robin Sharpe

has attended and successfully completed the requisite training for accreditation under TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR EPA AHERA (Asbestos Hazard Emergency Response Act), and ASHARA Model Accreditation Program requirements for

AHERA INSPECTOR REFRESHER

as presented by

Bureau Veritas North America, Inc.

allen George

Allen George

Course Date:

04/29/08

Certification #

08-1061

Certificate Expiration Date: 04/29/09



3800 NE Sandy Boulevard, Suite 101, Portland, Oregon 97232 • (971) 244-1200 • fax (971) 244-1209