Targeted Asbestos and Lead Assessment

E-Wing Geropsych Upgrades (207316)
UW Medical Center - Northwest Hospital
1550 North 115th Street
Seattle, WA
Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>1</td>
</tr>
<tr>
<td>1.0 INTRODUCTION</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1 Project Background</td>
<td>1-1</td>
</tr>
<tr>
<td>1.2 Sources of Information</td>
<td>1-1</td>
</tr>
<tr>
<td>1.3 Project Description</td>
<td>1-1</td>
</tr>
<tr>
<td>2.0 ASBESTOS ASSESSMENT</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1 Building Assessment</td>
<td>2-1</td>
</tr>
<tr>
<td>2.2 Sampling Procedures</td>
<td>2-2</td>
</tr>
<tr>
<td>2.3 Analytical Methodology</td>
<td>2-2</td>
</tr>
<tr>
<td>2.4 Asbestos Sampling Results</td>
<td>2-2</td>
</tr>
<tr>
<td>3.0 LEAD ASSESSMENT</td>
<td>3-4</td>
</tr>
<tr>
<td>3.1 Sampling Methodology</td>
<td>3-4</td>
</tr>
<tr>
<td>3.2 Lead Sampling Results</td>
<td>3-5</td>
</tr>
<tr>
<td>4.0 CONCLUSIONS AND RECOMMENDATIONS</td>
<td>4-5</td>
</tr>
<tr>
<td>4.1 Asbestos</td>
<td>4-5</td>
</tr>
<tr>
<td>4.2 Lead</td>
<td>4-6</td>
</tr>
<tr>
<td>5.0 LIMITING CONDITIONS</td>
<td>5-7</td>
</tr>
<tr>
<td>5.1 Limitations of the Assessment</td>
<td>5-7</td>
</tr>
</tbody>
</table>

List of Appendices

- Appendix A. Figures
- Appendix B. Photographs
- Appendix C. Asbestos Analytical Results
- Appendix D. Lead Analytical Results
- Appendix E. Personnel and Laboratory Accreditations
**Project Title:**
Targeted Asbestos and Lead Assessment
E-Wing Geropsych Upgrades (207316)
UW Medical Center - Northwest Hospital
1550 North 115th Street
Seattle, Washington 98105

**Prepared for:**
Mr. Jon Ericson
Project Manager
Project Delivery Group
University Facilities Building
3988 Jefferson Road SE, Box 352205
Seattle, WA 98195-2215

**Assessment Conducted by:**
AECOM Technical Services, Inc.
1111 3rd Avenue, Suite 1600
Seattle, Washington 98101-3241

**AECOM Project Number:**
60644182

**Assessment Personnel:**
Mr. Mike Kosoff
AHERA-Accredited Building Inspector
Number 178882 (exp. 9/9/2021)

**Assessment Date:**
October 13, 2020

---

**Report Prepared by:**
Mike Kosoff
Environmental Scientist
AECOM Technical Services, Inc.

---

**Report Reviewed by:**
Aaron Heath
Project Manager
AECOM Technical Services, Inc.

**Report Issue Date:**
October 21, 2020
EXECUTIVE SUMMARY

The University of Washington retained AECOM Technical Services, Inc. (AECOM), to conduct a targeted asbestos and lead assessment of the materials anticipated to be impacted by the renovations of east and west E-Wing (the Project Area) at UW Medical Center - Northwest Hospital located at 1550 North 115th Street in Seattle, Washington. AECOM’s representative, Mr. Mike Kosoff, conducted the assessment on October 13, 2020. This assessment included the building materials anticipated to be impacted by renovations related to E-Wing Geropsych Upgrades and excluded all other buildings and areas of the campus. The scope of the services provided is described in the University of Washington’s approved Scope Attachment dated October 7, 2020.

AECOM assessed the Project Area for the following:

- Asbestos-containing materials (ACM);
- Assumed asbestos-containing materials; and
- Lead-containing coatings (paints).

Thirty-eight bulk samples of suspect asbestos-containing materials were collected and analyzed using Polarized Light Microscopy (PLM). Four of the materials were found to contain detectable asbestos, four of the materials were assumed to contain asbestos, and one of the materials was visually assessed and determined to be non-suspect. In addition, two of the materials were further analyzed using PLM point count analysis (400 points) and were both confirmed to contain greater than 1% asbestos.

Five paint chip samples were collected and analyzed for total lead content. One of the paint chip samples was found to contain detectable levels of lead.
1.0 INTRODUCTION

The University of Washington retained AECOM Technical Services, Inc. (AECOM), to conduct a targeted asbestos and lead assessment of the materials anticipated to be impacted by the renovations to the east and west areas of the UW Medical Center - Northwest Hospital, E-Wing (the Project Area) located at 1550 North 115th Street in Seattle, Washington. AECOM’s representative, Mr. Mike Kosoff, conducted the assessment on October 13, 2020. This assessment included the building materials anticipated to be impacted by renovations related to E-Wing Geropsych Upgrades and excluded all other buildings and areas of the campus. The scope of the services provided is described in the University of Washington’s approved Scope Attachment dated October 7, 2020.

AECOM assessed the Project Area for the following:

− Asbestos-containing materials (ACM);
− Assumed asbestos-containing materials; and
− Lead-containing coatings (paints).

1.1 Project Background

This report presents the results of our targeted asbestos and lead assessment of the materials anticipated to be impacted by the renovations to the east and west areas of the UW Medical Center - Northwest Hospital, E-Wing (the Project Area) located at 1550 North 115th Street in Seattle, Washington. Other suspect building materials outside of the Project Area were excluded from the scope of the assessment. AECOM’s assessment included the materials anticipated to be impacted by the project based on communication from the client.

The purpose of the assessment was to provide information to assist University of Washington with communicating the presence of lead-containing coatings, and presence, location, and quantity of ACMs to employees, vendors, and contractors working in the Project Area and to meet the requirements for an asbestos survey for the Puget Sound Clean Air Agency (PSCAA) and US Occupational Safety and Health (OSHA) regulations and a good faith inspection as required by the Washington State Department of Labor and Industries’ Division of Occupational Safety and Health (DOSH) prior to renovations.

1.2 Sources of Information

During the course of the assessment, the following personnel and drawings provided assistance to the AECOM inspector:

− Mr. Jon Ericson, Project Manager, Project Delivery Group, University of Washington
− Mr. Brad Wendt, Senior Project Manager, Design and Construction Management, University of Washington
− Northwest Hospital Gero Remodel, provided by University of Washington dated September 16, 2020

1.3 Project Description

The east and west E-Wing (the Project Area) contain nurse stations, patient rooms, activity rooms, utility rooms, restrooms, shower rooms, storage rooms, and office spaces. Walls in the Project Area consist of gypsum wallboard. Ceilings in the Project Area consist of gypsum with spray-applied texturing and glued-on ceiling tiles. Flooring in the Project Area consist of glued-down carpet squares, ceramic tiles, and vinyl floor sheeting. Observed pipe insulation within the Project Area consists of paper and foil-wrapped fiberglass insulation on straight runs with plastic-wrapped fiberglass fittings.

2.0 ASPbestos ASSESSMENT

2.1 Building Assessment

Mr. Kosoff, an Asbestos Hazard Emergency Response Act (AHERA)-accredited building inspector, (Certification 178882, expiration date: 9/9/2021), from AECOM, performed the sampling on October 13, 2020. The AECOM inspector collected 38 samples of materials identified as suspect ACM.
This assessment was conducted using a modified protocol adapted from AHERA. The protocol is as follows:

- Identify suspect asbestos-containing materials.
- Group materials into homogeneous sampling areas/materials.
- Quantify each homogeneous material and collect representative samples. The number of samples collected of miscellaneous materials was determined by the inspector.
- Samples of each material were taken to the substrate, ensuring that all components and layers of the material were included.
- Sample locations are referenced on the field data forms according to sample number.
- Sampling was performed by an AHERA-accredited building inspector, and the use of proper protective equipment and procedures was followed.

2.2 Sampling Procedures

This sampling was conducted using the following procedures:

1) Spread the plastic drop cloth (if needed) and set up other equipment, e.g., ladder.
2) Don protective equipment (respirator and protective clothing if needed).
3) Label sample container with its identification number and record number. Record sample location and type of material sampled on a sampling data form.
4) Moisten area where sample is to be extracted (spray the immediate area with water).
5) Extract sample using a clean knife, drill capsule, or cork boring tool to cut out or scrape off approximately one tablespoon of the material. Penetrate all layers of material.
6) Place sample in a container and tightly seal it.
7) Wipe the exterior of the container with a wet wipe to remove any material that may have adhered to it during sampling.
8) Clean tools with wet wipes and wet mop; or vacuum area with HEPA vacuum to clean all debris.
9) Discard protective clothing, wet wipes and rags, cartridge filters, and drop cloth in a labeled plastic waste bag.

2.3 Analytical Methodology

Suspect ACMs were sampled in general accordance with 40 CFR 763.86 by an Environmental Protection Agency (EPA) AHERA-accredited building inspector. Each sample was collected and stored in a heavy-duty, self-sealing plastic bag, and delivered to NVL Laboratories in Seattle, Washington. Samples were analyzed via polarized light microscopy (PLM) in accordance with EPA/600/R-93/116. In addition, two of the materials were further analyzed using PLM point count analysis (400 points) and were both confirmed to contain greater than 1% asbestos. NVL Laboratories is accredited to perform PLM analysis by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NVLAP).

2.4 Asbestos Sampling Results

Table 2.4-1 provides a list of suspect homogeneous sampling area (HSA) material descriptions, material locations, and results for this sampling. ACMs are presented in bold. Refer to the attached Figures in Appendix A for sample locations and Photographs in Appendix B for additional material information.

<table>
<thead>
<tr>
<th>HSA ID, Material Description, and AHERA Classification</th>
<th>Material Location</th>
<th>HSA Results</th>
</tr>
</thead>
</table>
| 1: Beige vinyl floor sheeting, tan soft mastic, and black asphaltic mastic (M) | Flooring in rooms CR770A, CR763, CR767, and CR768 | Vinyl: ND  
Tan mastic: ND  
Black mastic: 3% chrysotile |
### Table 2.4-1. Results of Bulk Sample Analyses

<table>
<thead>
<tr>
<th>HSA ID, Material Description, and AHERA Classification</th>
<th>Material Location</th>
<th>HSA Results</th>
</tr>
</thead>
</table>
| 2: 6” tan rubber cove base, white soft mastic with paint, and white joint compound with paint (M) | At base of predominant walls throughout the Project Area | Cove base: ND  
Mastic: ND  
Joint compound: ND |
| 3: White soft mastic with paint, white joint compound with paint, white joint compound with paint, white joint compound with paper, and white gypsum with paper (M) | Predominant walls throughout the Project Area | Mastic: ND  
Joint compound with paint: ND  
Joint compound with paint: 2.3 to 3% chrysotile¹  
Joint compound with paper: 2% chrysotile  
Gypsum: ND |
| 4: White spray-applied texturing with paint (S), white joint compound with paper, and white gypsum with paper (M) | Predominant ceilings throughout the Project Area | Texturing: ND  
Joint compound: ND to 3% chrysotile¹  
Gypsum: ND |
| 5: Off-white vinyl floor sheeting with terrazzo pattern, gray fibrous paper backing with yellow mastic, gray fibrous paper backing with white/black mastic and gray leveling compound, and white brittle leveling compound (M) | Flooring in patient room restrooms, utility rooms, laundry rooms, janitor closets, and linen rooms | Vinyl: ND  
Paper backing with yellow mastic: ND  
Paper backing with white/black mastic and gray leveling compound: 3% chrysotile  
White leveling compound: ND |
| 6: 24”x24” green/beige carpet squares with gray rubber backing and black soft adhesive (M) | Flooring throughout patient rooms | Carpet squares with backing: ND  
Adhesive: ND |
| 7: 24”x24” gray/brown carpet squares with tan rubber backing, tan mastic, brown/black soft adhesive with gray leveling compound, and white leveling compound (M) | Flooring throughout the corridors | Carpet squares with backing: ND  
Mastic: ND  
Adhesive with gray leveling compound: ND  
White leveling compound: ND |
| 8: 6” gray rubber cove base and yellow soft mastic (M) | At base of walls throughout the corridors | Cove base: ND  
Mastic: ND |
| 9: Yellow soft adhesive and residual white joint compound with paint (M) | Associated with plastic panels at lower walls in select patient rooms | Adhesive: ND  
Residual joint compound: ND |
| 10: 4”x4” ceramic tile with associated grout and mastic (M) | Walls in rooms CR753R, CR794.13, CR794.14, CR794.16 | Assumed to contain asbestos² |
| 11: Beige rough brittle coating (M) | Top layer of flooring in shower rooms CR794.14 and CR794.16 | ND |
| 12: 2”x2” ceramic tile with associated grout and mastic (M) | Flooring in rooms CR753R, CR794.13, CR794.14, CR794.16 | Assumed to contain asbestos² |
Table 2.4-1. Results of Bulk Sample Analyses

<table>
<thead>
<tr>
<th>HSA ID, Material Description, and AHERA Classification</th>
<th>Material Location</th>
<th>HSA Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>13: 1'x1' white ceiling tiles with fissure pattern and associated mastic (M)</td>
<td>Ceilings in rooms CR768 and CR753V</td>
<td>Assumed to contain asbestos²</td>
</tr>
<tr>
<td>14: White ceiling tiles with 4&quot;x4&quot; pattern and associated mastic (M)</td>
<td>Ceilings throughout the corridors</td>
<td>Assumed to contain asbestos²</td>
</tr>
<tr>
<td>15: Black asphaltic sink undercoating (M)</td>
<td>Sinks in rooms CR753A and R753B</td>
<td>ND</td>
</tr>
<tr>
<td>16: Off-white sink undercoating (M)</td>
<td>Sink in room CR759A</td>
<td>ND</td>
</tr>
<tr>
<td>17: White brittle insulation with paint and tan fibrous material (M)</td>
<td>Interior of 3'x7' wood-clad doors throughout the Project Area</td>
<td>Insulation with paint: ND Fibrous material: ND</td>
</tr>
<tr>
<td>18: Paper and foil-wrapped yellow fiberglass insulation with plastic-wrapped fiberglass fitting (T)</td>
<td>Observed pipe insulation throughout the Project Area</td>
<td>Visually assessed and determined to be non-suspect</td>
</tr>
<tr>
<td>19: 24&quot;x24&quot; blue carpet squares with gray rubber backing and yellow soft adhesive with white leveling compound (M)</td>
<td>Flooring in rooms CR753O, CR753N, and CR753M</td>
<td>Carpet squares with backing: ND Adhesive with leveling compound: ND</td>
</tr>
</tbody>
</table>

HSA: material that is uniform in color, texture, general appearance, and construction and application date; ND: none detected; ¹Confirmed using PLM point count analysis; ²Not sampled due to requiring destructive methods; M: Miscellaneous material per AHERA; S: Surfacing material per AHERA; T: Thermal system insulation per AHERA

Additional suspect ACMs may be present in inaccessible or concealed spaces. These spaces include, but are not limited to, areas not assessed, areas not accessible at the time of the assessment, fire doors, electrical systems, pipe chases, spaces between wall/ceiling/door/floor cavities, interior of mechanical components, beneath foundation pads, etc. If future maintenance, renovation, and/or demolition activities make these areas accessible, AECOM recommends that a thorough assessment of these spaces be conducted at that time to identify and confirm the presence or absence of additional suspect ACMs. Until then, all such unidentified materials must be treated as assumed ACMs in accordance with applicable federal, state, and local regulations.

If the analytical results indicate that all the samples collected per HSA do not contain asbestos, then the HSA (material) is considered a non-ACM. If the analytical results of one or more of the samples collected per HSA indicate that asbestos is present in quantities of greater than one percent asbestos as defined by the EPA, all of the HSA (material) is considered to be an ACM regardless of any other analytical results.

Any material that contains greater than one percent asbestos is considered an ACM and must be handled according to Occupational Safety and Health Administration (OSHA), EPA, and applicable state and local regulations. The EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR 61, Subparts A and M has a requirement related to assessment of suspect ACM in buildings. When the asbestos content of a friable material is visually estimated by PLM to be detectable but less than ten percent, your firm may elect to (1) assume the amount is greater than one percent and treat the material as asbestos-containing or (2) require verification of the amount by the PLM point counting technique. If the results obtained by point counting and visual estimation are different, the point count result must be used. When no asbestos is detected by PLM, point counting is not required.

## 3.0 LEAD ASSESSMENT

### 3.1 Sampling Methodology

Homogeneous painted surfaces were defined by substrate, application, and color. The paint chip samples were collected to the substrate to ensure that all layers present on the substrate were included in the laboratory analysis. The samples were
collected and stored in a heavy-duty, self-sealing plastic bag and delivered to NVL Laboratories in Seattle, Washington. The samples were analyzed via Atomic Absorption Spectrophotometry in accordance with Method EPA 7000B. NVL Laboratories in Seattle, Washington is accredited by American Industrial Hygiene Association (AIHA) for lead analysis.

3.2 Lead Sampling Results

Five paint chip samples were collected and analyzed for total lead content. One of the samples was found to contain reportable levels of lead. The results of the analysis are presented in Table 3.2-1.

Table 3.2-1. Results of Paint Chip Sample Analysis

<table>
<thead>
<tr>
<th>Sample Number and Description</th>
<th>Paint Location</th>
<th>Sample Result in parts per million (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pb1: Beige paint on gypsum</td>
<td>Interior predominant walls</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Pb2: Tan paint on gypsum</td>
<td>Interior accent walls</td>
<td>&lt;52</td>
</tr>
<tr>
<td>Pb3: Blue paint on gypsum</td>
<td>Interior accent walls</td>
<td>&lt;55</td>
</tr>
<tr>
<td>Pb4: Brown paint on metal</td>
<td>Interior predominant door frames</td>
<td>59</td>
</tr>
<tr>
<td>Pb5: Brown paint on wood</td>
<td>Interior predominant doors</td>
<td>&lt;50</td>
</tr>
</tbody>
</table>

< below laboratory reportable level

4.0 CONCLUSIONS AND RECOMMENDATIONS

On October 13, 2020, AECOM conducted a targeted asbestos and lead assessment of suspect regulated building materials associated with the E-Wing Geropsych Upgrades at the UW Medical Center - Northwest Hospital located at 1550 North 115th Street in Seattle, Washington.

4.1 Asbestos

The following table identifies the confirmed and assumed ACM.

Table 4.1-1. Confirmed and Assumed ACM

<table>
<thead>
<tr>
<th>HSA ID Material Description</th>
<th>Material Location</th>
<th>HSA Quantity (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Non-asbestos beige vinyl floor sheeting, tan soft mastic, and asbestos-containing black asphaltic mastic (M)</td>
<td>Flooring in rooms CR770A, CR763, CR767, and CR768</td>
<td>1,035 SF</td>
</tr>
<tr>
<td>3: Non-asbestos white soft mastic with paint, white joint compound with paint, asbestos-containing white joint compound with paint, white joint compound with paper, and non-asbestos white gypsum with paper (M)</td>
<td>Predominant walls throughout the Project Area</td>
<td>13,250 SF</td>
</tr>
<tr>
<td>4: Non-asbestos white spray-applied texturing with paint (S), asbestos-containing white joint compound with paper, and non-asbestos white gypsum with paper (M)</td>
<td>Predominant ceilings throughout the Project Area</td>
<td>1,200 SF</td>
</tr>
</tbody>
</table>
Table 4.1-1. Confirmed and Assumed ACM

<table>
<thead>
<tr>
<th>HSA ID</th>
<th>Material Description</th>
<th>Material Location</th>
<th>HSA Quantity (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:</td>
<td>Non-asbestos off-white vinyl floor sheeting with terrazzo pattern, gray fibrous paper backing with yellow mastic, gray fibrous paper backing with asbestos-containing white/black mastic and non-asbestos gray leveling compound, and white brittle leveling compound (M)</td>
<td>Flooring in patient room restrooms, utility rooms, laundry rooms, janitor closets, and linen rooms</td>
<td>1,625 SF</td>
</tr>
<tr>
<td>12:</td>
<td>Assumed asbestos-containing 2&quot;x2&quot; ceramic tile with associated grout and mastic (M)</td>
<td>Flooring in rooms CR753R, CR794.13, CR794.14, CR794.16</td>
<td>195 SF</td>
</tr>
<tr>
<td>13:</td>
<td>Assumed asbestos-containing 1'x1' white ceiling tiles with fissure pattern and associated mastic (M)</td>
<td>Ceilings in rooms CR768 and CR753V</td>
<td>575 SF</td>
</tr>
<tr>
<td>14:</td>
<td>Assumed asbestos-containing white ceiling tiles with 4&quot;x4&quot; pattern and associated mastic (M)</td>
<td>Ceilings throughout the corridors</td>
<td>625 SF</td>
</tr>
</tbody>
</table>

HSA: material that is uniform in color, texture, general appearance, and construction and application date; M: Miscellaneous material per AHERA; SF: Square feet

4.2 Lead

Five paint chip samples were collected and analyzed for total lead content. One of the samples was found to contain reportable levels of lead. If lead-containing paint is impacted, the Washington State Department of Labor and Industries requires an exposure assessment be conducted during operations that may disturb the lead paint in such a way that the airborne exposure may reach or exceed the Action level of 30 micrograms per cubic meter (µg/m³) or the Permissible Exposure Limit of 50 µg/m³. The worker protection requirements of WAC 296-155 “Lead in Construction” and 29 CFR 1926.62 Lead may apply.
5.0 LIMITING CONDITIONS

AECOM’s assessment was limited to observation and minimal destructive sampling and analysis of potentially regulated building materials in accessible portions of the building envelope. However, common construction techniques render portions of any building inaccessible. As a result, additional asbestos-containing building materials or lead-containing coatings may be present in inaccessible areas (i.e., between walls, ceiling spaces enclosed by wallboard, interior of fire doors, etc.) of the Project Area that were not observed during the assessment. Inaccessible areas should be assumed to contain asbestos until extensive destructive sampling is performed in those areas.

5.1 Limitations of the Assessment

The conclusions of this report are AECOM’s professional opinions, based solely upon visual site observations and interpretations of laboratory analyses, as described in this report. The opinions presented herein apply to the site conditions existing at the time of AECOM’s assessment and interpretation of current regulations pertaining to asbestos and lead-containing paint. Therefore, AECOM’s opinions and recommendations may not apply to future conditions that may exist at the site which we have not had the opportunity to evaluate. All applicable state, federal, and local regulations should always be verified prior to any work that will disturb materials containing asbestos.

AECOM has performed the services set forth in the Scope of Work in accordance with generally accepted industrial hygiene practices in the same or similar localities, related to the nature of the work accomplished, at the time the services were performed.

Suspect regulated building materials located at UW Medical Center - Northwest Hospital that are outside the Project Area and/or are not included in this targeted asbestos and lead assessment are assumed to be asbestos-containing unless they are sampled by an AHERA-accredited asbestos building inspector and analyzed by a NVLAP-accredited laboratory to confirm the presence of asbestos prior to the disturbing of such materials.

The regulated building materials and conditions presented in this report represent those observed on the dates we conducted the sampling. This sampling is intended for the exclusive use of University of Washington for specific application to the E-Wing Geropsych Upgrades. This assessment is not intended to replace construction or demolition plans, specifications, or bidding documents. This report is not meant to represent a legal opinion.

Prepared by:

Mike Kosoff
Environmental Scientist
AECOM Technical Services, Inc.

Reviewed by:

Chris Selders
Industrial Hygienist
AECOM Technical Services, Inc.
Appendix A. Figures
Figure 2
First Floor
E-Wing West
University of Washington Medical Center
Northwest Hospital
1550 North 115th Street
Seattle, Washington

Legend
G-HSA##-## = Asbestos Sample Locations
G-Pb#-## = Lead Sample Locations

Job Number: 60644182 Not to scale
LEGEND

HSA 1: Non-asbestos beige vinyl floor sheeting, tan soft mastic, and asbestos-containing black asphaltic mastic (M)

HSA 5: Non-asbestos off-white vinyl floor sheeting with terrazzo pattern, gray fibrous paper backing with yellow mastic, gray fibrous paper backing with asbestos-containing white/black mastic and non-asbestos gray leveling compound, and white brittle leveling compound (M)

HSAs 10 and 12: Assumed asbestos-containing 4"x4" ceramic tile with associated grout and mastic on walls (M) and 2"x2" ceramic tile with associated grout and mastic on floors (M)

HSAs 13 and 14: Assumed asbestos-containing 1'x1' white ceiling tiles with fissure pattern and associated mastic (M) and white ceiling tiles with 4"x4" pattern and associated mastic (M)

Note – The following HSAs are not shown on drawing:

HSA 3: Non-asbestos white soft mastic with paint, white joint compound with paint, asbestos-containing white joint compound with paint, white joint compound with paper, and non-asbestos white gypsum with paper (M) on predominant walls throughout the Project Area

HSA 4: Non-asbestos white spray-applied texturing with paint (S), asbestos-containing white joint compound with paper, and non-asbestos white gypsum with paper (M) on predominant ceilings throughout the Project Area

Drawing should be printed in color
LEGEND

HSA 1: Non-asbestos beige vinyl floor sheeting, tan soft mastic, and asbestos-containing black asphaltic mastic (M)

HSA 5: Non-asbestos off-white vinyl floor sheeting with terrazzo pattern, gray fibrous paper backing with yellow mastic, gray fibrous paper backing with asbestos-containing white/black mastic and non-asbestos gray leveling compound, and white brittle leveling compound (M)

HSAs 10 and 12: Assumed asbestos-containing 4"x4" ceramic tile with associated grout and mastic on walls (M) and 2"x2" ceramic tile with associated grout and mastic on floors (M)

HSAs 13 and 14: Assumed asbestos-containing 1"x1" white ceiling tiles with fissure pattern and associated mastic (M) and white ceiling tiles with 4"x4" pattern and associated mastic (M)

Note – The following HSAs are not shown on drawing:

HSA 3: Non-asbestos white soft mastic with paint, white joint compound with paint, asbestos-containing white joint compound with paint, white joint compound with paper, and non-asbestos white gypsum with paper (M) on predominant walls throughout the Project Area

HSA 4: Non-asbestos white spray-applied texturing with paint (S), asbestos-containing white joint compound with paper, and non-asbestos white gypsum with paper (M) on predominant ceilings throughout the Project Area

Drawing should be printed in color
Appendix B. Photographs
HSA 1. Beige vinyl floor sheeting, tan soft mastic, and black asphaltic mastic (M)

HSA 2. 6” tan rubber cove base, white soft mastic with paint, and white joint compound with paint (M)
HSA 3. White soft mastic with paint, white joint compound with paint, white joint compound with paint, white joint compound with paper, and white gypsum with paper (M)

HSA 4. White spray-applied texturing with paint (S), white joint compound with paper, and white gypsum with paper (M)
HSA 5. Off-white vinyl floor sheeting with terrazzo pattern, gray fibrous paper backing with yellow mastic, gray fibrous paper backing with white/black mastic and gray leveling compound, and white brittle leveling compound (M)

HSA 6. 24”x24” green/beige carpet squares with gray rubber backing and black soft adhesive (M)
HSA 7. 24”x24” gray/brown carpet squares with tan rubber backing, tan mastic, brown/black soft adhesive with gray leveling compound, and white leveling compound (M)

HSA 8. 6” gray rubber cove base and yellow soft mastic (M)
HSA 9. Yellow soft adhesive and residual white joint compound with paint (M)

HSA 10. 4”x4” ceramic tile with associated grout and mastic (M)
HSA 11. Beige rough brittle coating (M)

HSA 12. 2”x2” ceramic tile with associated grout and mastic (M)
HSA 13. 1’x1’ white ceiling tiles with fissure pattern and associated mastic (M)

HSA 14. White ceiling tiles with 4”x4” pattern and associated mastic (M)
HSA 15. Black asphaltic sink undercoating (M)

HSA 16. Off-white sink undercoating (M)
HSA 17. White brittle insulation with paint and tan fibrous material (M)

HSA 18. Paper and foil-wrapped yellow fiberglass insulation with plastic-wrapped fiberglass fitting (T)
HSA 19. 24”x24” blue carpet squares with gray rubber backing and yellow soft adhesive with white leveling compound (M)
Appendix C.  Asbestos Analytical Results
Dear Mr. Heath,

Enclosed please find test results for the 38 sample(s) submitted to our laboratory for analysis on 10/15/2020.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U. S. EPA 40 CFR Appendix E to Subpart E of Part 763, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and EPA 600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Matt Macfarlane, Asbestos Lab Supervisor

Enc.: Sample Results
# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: AECOM-Seattle  
Address: 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101

Attention: Mr. Aaron Heath  
Project Location: Gero E Wing

---

### Lab ID: 20110669  
Client Sample #: G-1-01  
Location: Gero E Wing

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 of 2</td>
<td>Multi-color vinyl</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td>None Detected</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 of 2</td>
<td>Tan soft mastic</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td>None Detected</td>
</tr>
</tbody>
</table>

### Lab ID: 20110670  
Client Sample #: G-1-02  
Location: Gero E Wing

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 of 2</td>
<td>Multi-color vinyl</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td>None Detected</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 of 2</td>
<td>Black asphaltic mastic</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td>None Detected</td>
</tr>
</tbody>
</table>

### Lab ID: 20110671  
Client Sample #: G-1-03  
Location: Gero E Wing

Comments: Unable to separate mastics for analysis. Asbestos concentrated in black mastic (layer 2).

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 of 2</td>
<td>Multi-color vinyl</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td>None Detected</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 of 2</td>
<td>Black/yellow soft mastics</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td>None Detected</td>
</tr>
</tbody>
</table>

---

Sampled by: Client  
Analyzed by: Tiffany Querry  
Reviewed by: Matt Macfarlane  
Date: 10/20/2020  
Date: 10/20/2020

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
# Bulk Asbestos Fibers Analysis
By Polarized Light Microscopy

**Client:** AECOM-Seattle  
**Address:** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101

**Attention:** Mr. Aaron Heath  
**Project Location:** Gero E Wing

## Lab ID: 20110672  
**Client Sample #:** G-2-01

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tan rubbery material</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
</tr>
</tbody>
</table>

## Lab ID: 20110673  
**Client Sample #:** G-2-02

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tan rubbery material</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
</tr>
<tr>
<td>2</td>
<td>White soft mastic with paint</td>
<td>Mastic/Binder, Paint, Fine particles</td>
<td>Cellulose</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

## Lab ID: 20110674  
**Client Sample #:** G-2-03

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tan rubbery material</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
</tr>
</tbody>
</table>

---

**Batch #:** 2017270.00  
**Client Project #:** 60644182  
**Date Received:** 10/15/2020  
**Samples Received:** 38  
**Samples Analyzed:** 38  
**Method:** EPA/600/R-93/116

---

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
## Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

Client: AECOM-Seattle  
Address: 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  

**Attention: Mr. Aaron Heath**  
Project Location: Gero E Wing

<table>
<thead>
<tr>
<th>Layer 2 of 2</th>
<th>Description</th>
<th>Mastic/Binder, Fine particles</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lab ID:</strong> 20110675</td>
<td><strong>Client Sample #:</strong> G-3-01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location: Gero E Wing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Layer 1 of 2</strong></td>
<td><strong>Description:</strong> White compacted powdery material with paint</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td></td>
<td></td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td><strong>Layer 2 of 2</strong></td>
<td><strong>Description:</strong> White chalky material with paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 22%</td>
<td></td>
<td></td>
<td>None Detected ND</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 2</th>
<th>Description:</th>
<th>Mastic/Binder, Fine particles</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lab ID:</strong> 20110676</td>
<td><strong>Client Sample #:</strong> G-3-02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location: Gero E Wing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Layer 1 of 2</strong></td>
<td><strong>Description:</strong> White compacted powdery material with paint</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td></td>
<td></td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td><strong>Layer 2 of 2</strong></td>
<td><strong>Description:</strong> White chalky material with paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 21%</td>
<td></td>
<td></td>
<td>None Detected ND</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 2</th>
<th>Description:</th>
<th>Mastic/Binder, Fine particles</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lab ID:</strong> 20110677</td>
<td><strong>Client Sample #:</strong> G-3-03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location: Gero E Wing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Layer 2 of 2</strong></td>
<td><strong>Description:</strong> White chalky material with paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 21%</td>
<td></td>
<td></td>
<td>None Detected ND</td>
<td></td>
</tr>
</tbody>
</table>

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
## Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

<table>
<thead>
<tr>
<th>Layer 1 of 4</th>
<th>Description: White compacted powdery material with paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected ND</td>
</tr>
<tr>
<td>Asbestos Type: %</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 4</th>
<th>Description: White compacted powdery material with paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>Cellulose 3%</td>
</tr>
<tr>
<td>Asbestos Type: %</td>
<td>Chrysotile 3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 3 of 4</th>
<th>Description: White compacted powdery material with paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles</td>
<td>Cellulose 23%</td>
</tr>
<tr>
<td>Asbestos Type: %</td>
<td>Chrysotile 2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 4 of 4</th>
<th>Description: White chalky material with paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 21%</td>
</tr>
<tr>
<td>Glass fibers 5%</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

### Lab ID: 20110678  Client Sample #: G-3-04
Location: Gero E Wing

<table>
<thead>
<tr>
<th>Layer 1 of 3</th>
<th>Description: White soft mastic with paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Mastic/Binder, Paint, Fine particles</td>
<td>None Detected ND</td>
</tr>
<tr>
<td>Asbestos Type: %</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 3</th>
<th>Description: White compacted powdery material with paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected ND</td>
</tr>
<tr>
<td>Asbestos Type: %</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 3 of 3</th>
<th>Description: White chalky material with paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 22%</td>
</tr>
<tr>
<td>Glass fibers 5%</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

---

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

---

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 10/20/2020

---

ASB-02
**Lab ID: 20110679**  
**Client Sample #: G-3-05**  
**Location:** Gero E Wing

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 of 3</td>
<td>White compacted powdery material with paint</td>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td>None Detected ND</td>
</tr>
<tr>
<td>2 of 3</td>
<td>White compacted powdery material with paint</td>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td>ND</td>
</tr>
<tr>
<td>3 of 3</td>
<td>White chalky material with paper</td>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 20%</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

**Lab ID: 20110680**  
**Client Sample #: G-4-01**  
**Location:** Gero E Wing

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 of 2</td>
<td>White compacted powdery material with paint</td>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td>None Detected ND</td>
</tr>
<tr>
<td>2 of 2</td>
<td>White chalky material with paper</td>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 20%</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

**Lab ID: 20110681**  
**Client Sample #: G-4-02**  
**Location:** Gero E Wing

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials</th>
<th>Asbestos Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White chalky material with paper</td>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 20%</td>
<td>None Detected ND</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Glass fibers 5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

ASB-02
Client: AECOM-Seattle
Address: 1111 3rd Avenue Ste. 1600
Seattle, WA 98101

Attention: Mr. Aaron Heath
Project Location: Gero E Wing

Layer 1 of 2
Description: White compacted powdery material with paint
Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %
Calcereous binder, Calcareous particles, Paint None Detected ND

Layer 2 of 2
Description: White compacted powdery material with paper
Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %
Binder/Filler, Fine grains Cellulose 11% None Detected ND

Lab ID: 20110682
Location: Gero E Wing

Layer 1 of 3
Description: White compacted powdery material with paint
Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %
Calcereous binder, Calcareous particles, Paint None Detected ND

Layer 2 of 3
Description: White compacted powdery material with paint
Non-Fibrous Materials: Other Fibrous Materials:%
Calcereous binder, Calcareous particles, Paint Cellulose 3%

Layer 3 of 3
Description: White chalky material with paper
Non-Fibrous Materials:
Gypsum/Binder, Fine grains Cellulose 21%
Glass fibers 6%

Layer 1 of 3
Description: White compacted powdery material with paint
Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %
Calcereous binder, Calcareous particles, Paint None Detected ND

Lab ID: 20110683
Location: Gero E Wing

Comments: Insufficient sample amount for further analysis (layer 2).

Layer 1 of 3
Description: White compacted powdery material with paint
Non-Fibrous Materials: Other Fibrous Materials:% Asbestos Type: %
Calcereous binder, Calcareous particles, Paint None Detected ND

Sampled by: Client
Analysted by: Tiffany Querry
Reviewed by: Matt Macfarlane
Date: 10/20/2020

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
Layer 2 of 3  
**Description:** White compacted powdery material with paint  
- **Non-Fibrous Materials:** Calcareous binder, Calcareous particles, Paint  
- **Other Fibrous Materials:** Cellulose 2%  
- **Asbestos Type:** Chrysotile 3%

Layer 3 of 3  
**Description:** White chalky material with paper  
- **Non-Fibrous Materials:** Gypsum/Binder, Fine grains  
- **Other Fibrous Materials:** Cellulose 23%  
- **Asbestos Type:** None Detected ND

<table>
<thead>
<tr>
<th>Lab ID: 20110684</th>
<th>Client Sample #: G-4-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: Gero E Wing</td>
<td></td>
</tr>
</tbody>
</table>

Layer 1 of 3  
**Description:** White compacted powdery material with paint  
- **Non-Fibrous Materials:** Calcareous binder, Calcareous particles, Paint  
- **Other Fibrous Materials:** None Detected ND  
- **Asbestos Type:** None Detected ND

Layer 2 of 3  
**Description:** White compacted powdery material with paint  
- **Non-Fibrous Materials:** Calcareous binder, Calcareous particles, Paint  
- **Other Fibrous Materials:** Cellulose 4%  
- **Asbestos Type:** Chrysotile 3%

Layer 3 of 3  
**Description:** White chalky material with paper  
- **Non-Fibrous Materials:** Gypsum/Binder, Fine grains  
- **Other Fibrous Materials:** Cellulose 22%  
- **Asbestos Type:** None Detected ND

<table>
<thead>
<tr>
<th>Lab ID: 20110685</th>
<th>Client Sample #: G-4-06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: Gero E Wing</td>
<td></td>
</tr>
</tbody>
</table>

Layer 1 of 3  
**Description:** White compacted powdery material with paint  
- **Non-Fibrous Materials:** Calcareous binder, Calcareous particles, Paint  
- **Other Fibrous Materials:** None Detected ND  
- **Asbestos Type:** None Detected ND

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
### Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

**Client:** AECOM-Seattle  
**Address:** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  

**Attention:** Mr. Aaron Heath  
**Project Location:** Gero E Wing

---

**Layer 2 of 3**

**Description:** White compacted powdery material with paint

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>Cellulose</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Layer 3 of 3**

**Description:** White chalky material with paper

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Glass fibers</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Layer 1 of 3**

**Description:** White compacted powdery material with paint

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Layer 2 of 3**

**Description:** White compacted powdery material with paint

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>Cellulose</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Layer 3 of 3**

**Description:** White chalky material with paper

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Glass fibers</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Lab ID:** 20110686  
**Client Sample #:** G-4-07  
**Location:** Gero E Wing  
**Comments:** Insufficient sample amount for further analysis (layer 2).

**Layer 1 of 3**

**Description:** White compacted powdery material with paint

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Layer 2 of 3**

**Description:** White compacted powdery material with paint

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>Cellulose</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Layer 3 of 3**

**Description:** White chalky material with paper

<table>
<thead>
<tr>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Glass fibers</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Lab ID:** 20110687  
**Client Sample #:** G-5-01  
**Location:** Gero E Wing  
**Comments:** Unable to separate mastics for analysis. Asbestos concentrated in black mastic (layer 2).

---

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 10/20/2020  
**Signature:** [Signature]

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

---

ASB-02
### Layer 1 of 2
- **Description:** Off-white vinyl
- **Non-Fibrous Materials:** Vinyl/Binder, Fine particles
- **Other Fibrous Materials:** None Detected ND
- **Asbestos Type:** None Detected ND

### Layer 2 of 2
- **Description:** Gray fibrous material with white/black mastic and gray crumbly material
- **Non-Fibrous Materials:** Mastic/Binder, Fine grains, Fine particles
- **Other Fibrous Materials:** None Detected ND
- **Asbestos Type:** None Detected ND

### Layer 1 of 3
- **Description:** Off-white vinyl
- **Non-Fibrous Materials:** Vinyl/Binder, Fine particles
- **Other Fibrous Materials:** None Detected ND
- **Asbestos Type:** None Detected ND

### Layer 2 of 3
- **Description:** Gray fibrous material with yellow mastic
- **Non-Fibrous Materials:** Mastic/Binder, Fine grains, Fine particles
- **Other Fibrous Materials:** Cellulose 49%
- **Asbestos Type:** Cellulose 49%

### Layer 3 of 3
- **Description:** White brittle material
- **Non-Fibrous Materials:** Binder/Filler, Fine grains
- **Other Fibrous Materials:** None Detected ND
- **Asbestos Type:** None Detected ND

---

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
Client: AECOM-Seattle
Address: 1111 3rd Avenue Ste. 1600
Seattle, WA 98101

Attention: Mr. Aaron Heath
Project Location: Gero E Wing

Layer 1 of 2  Description: Off-white vinyl
Non-Fibrous Materials: Vinyl/Binder, Fine particles
Other Fibrous Materials:% None Detected ND
Asbestos Type: % None Detected ND

Layer 2 of 2  Description: Gray fibrous material with yellow mastic
Non-Fibrous Materials: Mastic/Binder, Fine grains, Fine particles
Other Fibrous Materials:% Cellulose 48%
Synthetic fibers 20%
Glass fibers 6%
Asbestos Type: % None Detected ND

Lab ID: 20110690  Client Sample #: G-6-01
Location: Gero E Wing

Layer 1 of 2  Description: Multi-color woven fibrous material with gray rubbery backing
Non-Fibrous Materials: Binder/Filler, Fine particles
Other Fibrous Materials:% Synthetic fibers 60%
Asbestos Type: % None Detected ND

Layer 2 of 2  Description: Black soft abhesive
Non-Fibrous Materials: Adhesive/Binder, Fine grains
Other Fibrous Materials:% Synthetic fibers 2%
Asbestos Type: % None Detected ND

Lab ID: 20110691  Client Sample #: G-6-02
Location: Gero E Wing

Layer 1 of 2  Description: Multi-color woven fibrous material with gray rubbery backing
Non-Fibrous Materials: Binder/Filler, Fine particles
Other Fibrous Materials:% Synthetic fibers 62%
Asbestos Type: % None Detected ND

Layer 2 of 2  Description: Black soft abhesive
Non-Fibrous Materials: Adhesive/Binder, Fine grains
Other Fibrous Materials:% Synthetic fibers 2%
Asbestos Type: % None Detected ND

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
### Lab ID: 20110692  Client Sample #: G-6-03

**Location:** Gero E Wing

<table>
<thead>
<tr>
<th>Layer 1 of 2</th>
<th>Description:</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials: %</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multi-color woven fibrous material with gray rubbery backing</td>
<td>Binder/Filler, Fine particles</td>
<td>Synthetic fibers</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 2</th>
<th>Description:</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials: %</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Black soft adhesive</td>
<td>Adhesive/Binder, Fine grains</td>
<td>Synthetic fibers</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

---

### Lab ID: 20110693  Client Sample #: G-7-01

**Location:** Gero E Wing

<table>
<thead>
<tr>
<th>Layer 1 of 3</th>
<th>Description:</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials: %</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gray woven fibrous material with tan rubbery backing</td>
<td>Binder/Filler, Fine particles</td>
<td>Synthetic fibers</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 3</th>
<th>Description:</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials: %</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brown soft adhesive with gray crumbly material</td>
<td>Adhesive/Binder, Fine grains</td>
<td>Cellulose</td>
<td>None Detected ND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Synthetic fibers</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 3 of 3</th>
<th>Description:</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials: %</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White crumbly material</td>
<td>Binder/Filler, Fine grains</td>
<td>None Detected</td>
<td>ND</td>
</tr>
</tbody>
</table>

---

### Lab ID: 20110694  Client Sample #: G-7-02

**Location:** Gero E Wing

<table>
<thead>
<tr>
<th>Layer 1 of 2</th>
<th>Description:</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials: %</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gray woven fibrous material with tan rubbery backing</td>
<td>Binder/Filler, Fine particles</td>
<td>Synthetic fibers</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

---

**Sampled by:** Client

**Analyzed by:** Tiffany Querry  **Date:** 10/20/2020

**Reviewed by:** Matt Macfarlane  **Date:** 10/20/2020

---

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
Layer 2 of 2
Description: Tan soft mastic
Non-Fibrous Materials: Mastic/Binder, Fine particles
Asbestos Type: %
Other Fibrous Materials:% Synthetic fibers <1%

Layer ID: 20110695  Client Sample #: G-7-03
Lab ID: 20110696  Location: Gero E Wing
Layer 1 of 2
Description: Gray woven fibrous material with tan rubbery backing
Non-Fibrous Materials: Binder/Filler, Fine particles
Asbestos Type: %
Other Fibrous Materials:% Synthetic fibers 60%

Layer 2 of 2
Description: Black soft adhesive
Non-Fibrous Materials: Adhesive/Binder, Fine particles
Asbestos Type: %
Other Fibrous Materials:% Synthetic fibers 2%

Layer ID: 20110697  Client Sample #: G-8-01
Lab ID: 20110696  Location: Gero E Wing
Layer 1 of 2
Description: Gray rubbery material
Vinyl/Binder, Fine particles
Asbestos Type: %
Non-Fibrous Materials: None Detected ND
Other Fibrous Materials:%

Layer 2 of 2
Description: Yellow soft mastic
Mastic/Binder, Fine grains
Asbestos Type: %
Non-Fibrous Materials: Synthetic fibers 3%
Other Fibrous Materials:%

Layer ID: 20110697  Client Sample #: G-8-02
Lab ID: 20110696  Location: Gero E Wing
Layer 1 of 2
Description: Gray rubbery material
Non-Fibrous Materials: Vinyl/Binder, Fine particles
Asbestos Type: %
Other Fibrous Materials:% None Detected ND

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

Sampled by: Client
Analyzed by: Tiffany Querry  Date: 10/20/2020
Reviewed by: Matt Macfarlane  Date: 10/20/2020
Matt Macfarlane, Asbestos Lab Supervisor

ASB-02
### Layer 2 of 2
**Description:** Yellow soft mastic

<table>
<thead>
<tr>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastic/Binder, Fine grains</td>
<td>Synthetic fibers</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>None Detected</td>
</tr>
</tbody>
</table>

#### Lab ID: 20110698  
**Client Sample #: G-8-03**

**Location:** Gero E Wing

| Layer 1 of 2  
| Description: Gray rubbery material |
| Non-Fibrous Materials: Vinyl/Binder, Fine particles |
| Other Fibrous Materials: | None Detected | ND |
| Asbestos Type: | None Detected |

| Layer 2 of 2  
| Description: Yellow soft mastic |
| Non-Fibrous Materials: Mastic/Binder, Fine grains |
| Other Fibrous Materials: Synthetic fibers | 2% |
| Asbestos Type: | None Detected |

#### Lab ID: 20110699  
**Client Sample #: G-9-01**

**Location:** Gero E Wing

| Layer 1 of 2  
| Description: Yellow soft adhesive |
| Non-Fibrous Materials: Adhesive/Binder, Fine particles |
| Other Fibrous Materials: Cellulose | 2% |
| Asbestos Type: | None Detected |

| Layer 2 of 2  
| Description: White compacted powdery material with paint |
| Non-Fibrous Materials: Calcareous binder, Calcareous particles, Paint |
| Other Fibrous Materials: | None Detected | ND |
| Asbestos Type: | None Detected |

#### Lab ID: 20110700  
**Client Sample #: G-9-02**

**Location:** Gero E Wing

| Layer 1 of 2  
| Description: Yellow soft adhesive |
| Non-Fibrous Materials: Adhesive/Binder, Fine particles |
| Other Fibrous Materials: Cellulose | <1% |
| Asbestos Type: | None Detected |

---

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 10/20/2020

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

<table>
<thead>
<tr>
<th>Layer 2 of 2</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White compacted powdery material with paint</td>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>None Detected</td>
<td>ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lab ID: 20110701</th>
<th>Client Sample #: G-11-01</th>
<th>Location: Gero E Wing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Layer 1 of 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Description: Peach brittle material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Fibrous Materials:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Binder/Filler, Glass beads, Fine particles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lab ID: 20110702</th>
<th>Client Sample #: G-11-02</th>
<th>Location: Gero E Wing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Layer 1 of 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Description: Peach brittle material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Fibrous Materials:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Binder/Filler, Glass beads, Fine particles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lab ID: 20110703</th>
<th>Client Sample #: G-15-01</th>
<th>Location: Gero E Wing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Layer 1 of 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Description: Black asphaltic material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Fibrous Materials:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asphalt/Binder, Fine grains</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lab ID: 20110704</th>
<th>Client Sample #: G-16-01</th>
<th>Location: Gero E Wing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Layer 1 of 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Description: Off-white crumbly material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Fibrous Materials:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Binder/Filler, Fine grains</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lab ID: 20110705</th>
<th>Client Sample #: G-17-01</th>
<th>Location: Gero E Wing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
## Bulk Asbestos Fibers Analysis
By Polarized Light Microscopy

**Client:** AECOM-Seattle  
**Address:** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  

**Attention:** Mr. Aaron Heath  
**Project Location:** Gero E Wing

---

### Layer 1 of 2
**Description:** White brittle material with paint  
- Non-Fibrous Materials:  
  - Binder/Filler, Fine grains, Perlite  
  - Mineral grains, Paint  
- Other Fibrous Materials:  
  - Glass fibers <1%  
- Asbestos Type: None Detected ND

### Layer 2 of 2
**Description:** Tan fibrous material  
- Non-Fibrous Materials:  
  - Binder/Filler, Fine particles  
- Other Fibrous Materials:  
  - Cellulose 97%  
- Asbestos Type: None Detected ND

---

### Lab ID: 20110706  
**Client Sample #:** G-19-01  
**Location:** Gero E Wing

#### Layer 1 of 2
**Description:** Multi-color woven fibrous material with gray rubbery backing  
- Non-Fibrous Materials:  
  - Binder/Filler, Fine particles, Fine grains  
- Other Fibrous Materials:  
  - Glass fibers 6%  
  - Synthetic fibers 54%  
- Asbestos Type: None Detected ND

#### Layer 2 of 2
**Description:** Yellow soft adhesive with white crumbly material  
- Non-Fibrous Materials:  
  - Adhesive/Binder, Fine grains  
- Other Fibrous Materials:  
  - Synthetic fibers <1%  
- Asbestos Type: None Detected ND

---

### Notes:
- If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

---

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 10/20/2020

---

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

---

ASB-02
**ASBESTOS LABORATORY SERVICES**

**Company** AECOM-Seattle  
**Address** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101

**Project Manager** Mr. Aaron Heath  
**Phone** (206) 438-2700  
**Cell**  

![NVL Batch Number 2017270.00](image)

**TAT** 3 Days  
**AH** No  
**Due Date** 10/20/2020  
**Time** 1:35 PM  
**Fax** (866) 495-5288  
**Email** Aaron.heath@aecom.com

---

**Project Name/Number:** 60644182  
**Project Location:** Gero E Wing

---

**Subcategory** PLM Bulk  
**Item Code** ASB-02  
**EPA 600/R-93-116 Asbestos by PLM <bulk>**

---

**Total Number of Samples** 38  
Rush Samples

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20110669</td>
<td>G-1-01</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>20110670</td>
<td>G-1-02</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>20110671</td>
<td>G-1-03</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>20110672</td>
<td>G-2-01</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>20110673</td>
<td>G-2-02</td>
<td>A</td>
</tr>
<tr>
<td>6</td>
<td>20110674</td>
<td>G-2-03</td>
<td>A</td>
</tr>
<tr>
<td>7</td>
<td>20110675</td>
<td>G-3-01</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>20110676</td>
<td>G-3-02</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>20110677</td>
<td>G-3-03</td>
<td>A</td>
</tr>
<tr>
<td>10</td>
<td>20110678</td>
<td>G-3-04</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>20110679</td>
<td>G-3-05</td>
<td>A</td>
</tr>
<tr>
<td>12</td>
<td>20110680</td>
<td>G-4-01</td>
<td>A</td>
</tr>
<tr>
<td>13</td>
<td>20110681</td>
<td>G-4-02</td>
<td>A</td>
</tr>
<tr>
<td>14</td>
<td>20110682</td>
<td>G-4-03</td>
<td>A</td>
</tr>
<tr>
<td>15</td>
<td>20110683</td>
<td>G-4-04</td>
<td>A</td>
</tr>
<tr>
<td>16</td>
<td>20110684</td>
<td>G-4-05</td>
<td>A</td>
</tr>
<tr>
<td>17</td>
<td>20110685</td>
<td>G-4-06</td>
<td>A</td>
</tr>
<tr>
<td>18</td>
<td>20110686</td>
<td>G-4-07</td>
<td>A</td>
</tr>
</tbody>
</table>

---

**Sampled by** Client  
**Relinquished by** UPS

---

**Received by** Emily Schubert  
**Company** NVL  
**Date** 10/15/20  
**Time** 1335  
**Analyzed by** Tiffany Querry  
**Company** NVL  
**Date** 10/20/20  
**Time** 

---

**Results Called by**  
**Fax**  
**Emailed**

---

**Special Instructions:**

---

*Date: 10/15/2020*  
*Time: 3:45 PM*  
*Entered By: Emily Schubert*
**Company:** AECOM-Seattle  
**Address:** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  
**Project Manager:** Mr. Aaron Heath  
**Phone:** (206) 438-2700  
**Cell:**  
**NVL Batch Number:** 2017270.00  
**TAT:** 3 Days  
**AH:** No  
**Due Date:** 10/20/2020  
**Time:** 1:35 PM  
**Fax:** (866) 495-5288  
**Email:** Aaron.heath@aecom.com  
**Project Name/Number:** 60644182  
**Project Location:** Gero E Wing  

**Subcategory:** PLM Bulk  
**Item Code:** ASB-02  
**EPA 600/R-93-116 Asbestos by PLM <bulk>**  

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>20110687</td>
<td>G-5-01</td>
<td>A</td>
</tr>
<tr>
<td>20</td>
<td>20110688</td>
<td>G-5-02</td>
<td>A</td>
</tr>
<tr>
<td>21</td>
<td>20110689</td>
<td>G-5-03</td>
<td>A</td>
</tr>
<tr>
<td>22</td>
<td>20110690</td>
<td>G-6-01</td>
<td>A</td>
</tr>
<tr>
<td>23</td>
<td>20110691</td>
<td>G-6-02</td>
<td>A</td>
</tr>
<tr>
<td>24</td>
<td>20110692</td>
<td>G-6-03</td>
<td>A</td>
</tr>
<tr>
<td>25</td>
<td>20110693</td>
<td>G-7-01</td>
<td>A</td>
</tr>
<tr>
<td>26</td>
<td>20110694</td>
<td>G-7-02</td>
<td>A</td>
</tr>
<tr>
<td>27</td>
<td>20110695</td>
<td>G-7-03</td>
<td>A</td>
</tr>
<tr>
<td>28</td>
<td>20110696</td>
<td>G-8-01</td>
<td>A</td>
</tr>
<tr>
<td>29</td>
<td>20110697</td>
<td>G-8-02</td>
<td>A</td>
</tr>
<tr>
<td>30</td>
<td>20110698</td>
<td>G-8-03</td>
<td>A</td>
</tr>
<tr>
<td>31</td>
<td>20110699</td>
<td>G-9-01</td>
<td>A</td>
</tr>
<tr>
<td>32</td>
<td>20110700</td>
<td>G-9-02</td>
<td>A</td>
</tr>
<tr>
<td>33</td>
<td>20110701</td>
<td>G-11-01</td>
<td>A</td>
</tr>
<tr>
<td>34</td>
<td>20110702</td>
<td>G-11-02</td>
<td>A</td>
</tr>
<tr>
<td>35</td>
<td>20110703</td>
<td>G-15-01</td>
<td>A</td>
</tr>
<tr>
<td>36</td>
<td>20110704</td>
<td>G-16-01</td>
<td>A</td>
</tr>
</tbody>
</table>

**Sampled by:** Client  
**Relinquished by:** UPS  
**Received by:** Emily Schubert  
**Analyzed by:** Tiffany Querry  
**Results Called by:** NVL  
**Fax:**  
**Emailed:**  

**Special Instructions:**

*Date: 10/15/2020  
Time: 3:45 PM  
Entered By: Emily Schubert*
Project Name/Number: 60644182  
Project Location: Gero E Wing

Subcategory: PLM Bulk  
Item Code: ASB-02  
EPA 600/R-93-116 Asbestos by PLM <bulk>

---

Total Number of Samples: 38  
Rush Samples: No

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>20110705</td>
<td>G-17-01</td>
<td>A</td>
</tr>
<tr>
<td>38</td>
<td>20110706</td>
<td>G-19-01</td>
<td>A</td>
</tr>
</tbody>
</table>

---

Special Instructions:

Print Name: Emily Schubert  
Signature:  
Company: NVL  
Date: 10/15/20  
Time: 1335

Received by: Emily Schubert  
Signature:  
Company: NVL  
Date: 10/15/20  
Time: 1335

Analyzed by: Tiffany Query  
Signature:  
Company: NVL  
Date: 10/20/20  
Time:  

Results Called by: NVL  
Faxed:  
Emailed:  

---

Date: 10/15/2020  
Time: 3:45 PM  
Entered By: Emily Schubert
**CHAIN OF CUSTODY**

**Company:** AECOM  
**Address:** 1111 3rd Ave, Suite 1600  
**Seattle, WA 98101**  
**Phone:** 206-438-2700  
**Project Manager:** Aaron Heath  
**Cell:**  
**Email:**  
**Fax:**

**Project Name/Number:** 60644182  
**Project Location:** Gero E Wing  

- [ ] PCM Air (NIOSH 7400)  
- [ ] TEM (NIOSH 7402)  
- [ ] TEM (AHERA)  
- [x] TEM (EPA Level II Modified)  
- [ ] EPA 400 Points (600/R-93-116)  
- [ ] EPA 1000 Points (600/R-93-116)  
- [ ] PLM (EPA 600/R-93-116)  
- [ ] Asbestos in Vermiculite (EPA 600/R-04/004)  
- [ ] Other

- [ ] Call ( ) --  
- [x] Fax ( ) --  
- [ ] Email mike.kosoff@aecom.com

**Total Number of Samples:** 3

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G-1-01</td>
</tr>
<tr>
<td>2</td>
<td>G-1-02</td>
</tr>
<tr>
<td>3</td>
<td>G-1-03</td>
</tr>
<tr>
<td>4</td>
<td>G-1-04</td>
</tr>
<tr>
<td>5</td>
<td>G-1-05</td>
</tr>
<tr>
<td>6</td>
<td>G-1-06</td>
</tr>
<tr>
<td>7</td>
<td>G-1-07</td>
</tr>
<tr>
<td>8</td>
<td>G-1-08</td>
</tr>
<tr>
<td>9</td>
<td>G-1-09</td>
</tr>
<tr>
<td>10</td>
<td>G-1-10</td>
</tr>
<tr>
<td>11</td>
<td>G-1-11</td>
</tr>
<tr>
<td>12</td>
<td>G-1-12</td>
</tr>
<tr>
<td>13</td>
<td>G-1-13</td>
</tr>
<tr>
<td>14</td>
<td>G-1-14</td>
</tr>
<tr>
<td>15</td>
<td>G-1-15</td>
</tr>
</tbody>
</table>

**Sampled by:** Mike Kosoff  
**Relinquish by:** Mike Kosoff

**Office Use Only**

- [ ] Received by  
- [ ] Analyzed by  
- [ ] Called by  
- [ ] Faxed/Email by  

**Print Name:**  
**Signature:**  
**Company:** AECOM  
**Date:** 10/13/2020  
**Time:**

- [ ] 4708 Aurora Ave N, Seattle, WA 98103  
- [ ] 206.547.0100  
- [ ] 206.634.1936  
- [ ] www.nvlabs.com  

**Page 20 of 22**
## Chain of Custody

**Company:** AECOM  
**Address:** 1111 3rd Ave, Suite 1600  
**Phone:** 206-438-2700  
**Project Manager:** Aaron Heath  
**Cell:**  
**Email:**  
**Fax:**  

### Project Information
- **Project Name/Number:** 60644182  
- **Project Location:** Gero E Wing
  - PCM Air (NIOSH 7400)
  - PLM (EPA 600/R-93-116)
  - PLM Gravimetry (600/R-93-116)
  - Asbestos Friable/Non-Friable (EPA 600/R-93/116)
  - Other

### Reporting Instructions
- Call ( )
- Fax ( )
- Email mike.kosoff@aecom.com

### Total Number of Samples
- **38**

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G-4-05</td>
</tr>
<tr>
<td>2</td>
<td>h-06</td>
</tr>
<tr>
<td>3</td>
<td>h-07</td>
</tr>
<tr>
<td>4</td>
<td>h-5-01</td>
</tr>
<tr>
<td>5</td>
<td>h-02</td>
</tr>
<tr>
<td>6</td>
<td>h-03</td>
</tr>
<tr>
<td>7</td>
<td>h-6-01</td>
</tr>
<tr>
<td>8</td>
<td>h-02</td>
</tr>
<tr>
<td>9</td>
<td>h-03</td>
</tr>
<tr>
<td>10</td>
<td>h-7-01</td>
</tr>
<tr>
<td>11</td>
<td>h-02</td>
</tr>
<tr>
<td>12</td>
<td>h-03</td>
</tr>
<tr>
<td>13</td>
<td>h-8-01</td>
</tr>
<tr>
<td>14</td>
<td>h-02</td>
</tr>
<tr>
<td>15</td>
<td>h-03</td>
</tr>
</tbody>
</table>

### Sampled by
- **Print Name:** Mike Kosoff  
- **Signature:**
- **Company:** AECOM  
- **Date:** 10/13/2020  
- **Time:**

### Relinquish by
- **Print Name:** Mike Kosoff  
- **Signature:**
- **Company:** AECOM  
- **Date:** 10/14/2020  
- **Time:** 11:00

**Office Use Only**

- **Received by:**
- **Analyzed by:**
- **Called by:**
- **Faxed/Email by:**
**Chain of Custody**

Company: AECOM  
Address: 1111 3rd Ave, Suite 1600  
Seattle, WA 98101  
Phone: 206-438-2700  
Project Manager: Aaron Heath  

**Project Name/Number**: 60644182  
**Project Location**: Gero E Wing

- PCM Air (NIOSH 7400)
- PLM (EPA 600/R-93-116)
- Asbestos in Vermiculite (EPA 600/R-04/004)
- Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- Other

**Reporting Instructions**

- Call ( )  
- Fax ( )  
- Email: mike.kosoff@aecom.com

**Total Number of Samples**: 38

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G-9-01</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>n-02</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>n-11-01</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>n-02</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>n-15-01</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>n-16-01</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>n-17-01</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>n-19-01</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sampled by: Mike Kosoff  
Relinquish by: Mike Kosoff  
Company: AECOM  
Date: 10/13/2020  
Time:  

Office Use Only

Received by:  
Analyzed by:  
Called by:  
Faxed/Email by:  

**Turn Around Time**

- 1 Hour
- 2 Hours
- 4 Hours
- 2 Days
- 5 Days
- 4 Days
- 3 Days
- 10 Days

Please call for TAT less than 24 Hours

---

4708 Aurora Ave N, Seattle, WA 98103  
P 206.527.0100  
F 206.634.1936  
www.nvlabs.com
October 21, 2020

Aaron Heath
AECOM-Seattle
1111 3rd Avenue Ste. 1600
Seattle, WA 98101

RE: Bulk Asbestos Fiber Concentration by Point Count
NVL Batch # 2017502

Client Project: 60644182
Location: Gero E Wing

Dear Mr. Heath,

At your request, NVL Laboratories conducted analysis of your sample to determine the asbestos concentration using point count procedures.

The sample was analyzed for the presence of asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with U.S. EPA method 600/R-93/116.

Eight slides of thoroughly homogenized material are prepared for any given sample that requires point counting. In order to be counted as a point, the crosshairs of the microscope must center on either a fiber or a particle. The analyst counts at least 50 points per slide preparation. A minimum of 400 non-empty points are counted, then the number of counted asbestos fibers are divided by the total number of points counted to arrive at the percentage of asbestos in the sample.

Please see the conclusion section of the lab reports for point count results.

It has been a pleasure to be of service to you. Please feel free to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample Results
Lab ID: 2011789  Client Sample #: G-3-03 Layer 2

Sample Description: White compacted powdery material with paint, Layer 2 of 4

This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 3% in Layer 2. Corresponding Lab ID 20110677

<table>
<thead>
<tr>
<th>Prep Slide #</th>
<th>Asbestos Point</th>
<th>Non Asbestos Point</th>
<th>Total Points Counted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>48</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>49</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>49</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>48</td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>47</td>
<td>50</td>
</tr>
</tbody>
</table>

Total 9 391 400

Conclusion: This Sample Contains 2.3% ASBESTOS
### PLM Point Count

Bulk Asbestos Fibers Analysis

---

**Client:** AECOM-Seattle  
**Address:** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  
**Attention:** Mr. Aaron Heath  
**Project Location:** Gero E Wing

 batch #: 2017502.00  
**Client Project #:** 60644182  
**Date Received:** 10/20/2020  
**Samples Received:** 5  
**Samples Analyzed:** 2  
**Method:** EPA/600R-93/116

---

**Lab ID:** 20111790  
**Client Sample #:** G-3-03 Layer 3  
**Sample Not Analyzed**

<table>
<thead>
<tr>
<th>Prep Slide #</th>
<th>Asbestos Point</th>
<th>Non Asbestos Point</th>
<th>Total Points Counted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

---

**Sampled by:** Client  
**Analyzed by:** Matt Macfarlane  
**Reviewed by:** Nick Ly  
**Date:** 10/20/2020  
**Date:** 10/21/2020  
**Nick Ly, Technical Director**

---

Page 3 of 8
### PLM Point Count
#### Bulk Asbestos Fibers Analysis

Client: AECOM-Seattle  
Address: 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  
**Attention:** Mr. Aaron Heath  
Project Location: Gero E Wing

---

**Sample Not Analyzed**

<table>
<thead>
<tr>
<th>Prep Slide #</th>
<th>Asbestos Point</th>
<th>Non Asbestos Point</th>
<th>Total Points Counted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Lab ID:** 20111791  
**Client Sample #:** G-3-05 Layer 2  
**Sampled by:** Client  
**Analyst:** Matt Macfarlane  
**Date:** 10/20/2020  
**Reviewed by:** Nick Ly  
**Date:** 10/21/2020

---

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
Lab ID : 20111792  Client Sample #: G-4-03 Layer 2

Sample Description: White compacted powdery material with paint, Layer 2 of 3

Introduction: This sample was initially analyzed for Asbestos content using Polarized Light Microscopy (PLM). Asbestos fibers were observed and quantity was determined using calibrated visual area estimation. Asbestos content was originally found to be 2% in Layer 2. Corresponding Lab ID 20110682

<table>
<thead>
<tr>
<th>Prep Slide #</th>
<th>Asbestos Point</th>
<th>Non Asbestos Point</th>
<th>Total Points Counted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>48</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>47</td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5</strong></td>
<td><strong>395</strong></td>
<td><strong>400</strong></td>
</tr>
</tbody>
</table>

Conclusion: This Sample Contains 1.3% ASBESTOS
# PLM Point Count

## Bulk Asbestos Fibers Analysis

**Client:** AECOM-Seattle  
**Address:** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  
**Attention:** Mr. Aaron Heath  
**Project Location:** Gero E Wing

**Batch #:** 2017502.00  
**Client Project #:** 60644182  
**Date Received:** 10/20/2020  
**Samples Received:** 5  
**Samples Analyzed:** 2  
**Method:** EPA/600R-93/116

<table>
<thead>
<tr>
<th>Prep Slide #</th>
<th>Asbestos Point</th>
<th>Non Asbestos Point</th>
<th>Total Points Counted</th>
</tr>
</thead>
</table>

**Lab ID:** 20111793  
**Client Sample #:** G-4-05 Layer 2  
**Sample Not Analyzed**

**Sample by:** Client  
**Analyzed by:** Matt Macfarlane  
**Reviewed by:** Nick Ly  
**Date:** 10/20/2020  
**Date:** 10/21/2020  
**Nick Ly, Technical Director**

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using EPA 600/R-93/116 Method with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
**Project Name/Number:** 60644182  
**Project Location:** Gero E Wing

**Subcategory:** PLM Bulk  
**Item Code:** ASB-03  
**EPA 600/R-93-116 Asbestos by PLM (400 points) <bulk>**

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20111789</td>
<td>G-3-03 Layer 2</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>20111790</td>
<td>G-3-03 Layer 3</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>20111791</td>
<td>G-3-05 Layer 2</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>20111792</td>
<td>G-4-03 Layer 2</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>20111793</td>
<td>G-4-05 Layer 2</td>
<td>A</td>
</tr>
</tbody>
</table>

---

**Sampled by**  
**Relinquished by**  
**Received by**  
**Analyzed by**  
**Results Called by**  
**Faxed**  
**Emailed**  

**Special Instructions:** Samples originally from batch 2017270

---

Date: 10/20/2020  
Time: 12:21 PM  
Entered By: Kelly AuVu
Please perform PLM point count analysis (400 points) on a 24-hour turnaround time for the following sample layers from batch# 2017270.00:

Lab ID: 20110677 Client Sample #: G-3-03 (layer 2) **Stop at the first >1% asbestos for this group**
Lab ID: 20110677 Client Sample #: G-3-03 (layer 3)
Lab ID: 20110679 Client Sample #: G-3-05 (layer 2)

Lab ID: 20110682 Client Sample #: G-4-03 (layer 2) **Stop at the first >1% asbestos for this group**
Lab ID: 20110684 Client Sample #: G-4-05 (layer 2)

Mike Kosoff
Abatement Designer/Environmental Technician
Cell 206-730-3127
Desk 206-438-2019
mike.kosoff@aecom.com

AECOM
1111 Third Avenue, Suite 1600
Seattle, WA 98101
206-438-2700 Fax 866-495-5288
www.aecom.com

Your requested analysis is complete, please see the attached document:

Client Job Number: 60644182
NVL Labs Batch ID: 2017270
Company Name: AECOM-Seattle
Project Location: Gero E Wing
Date: 10/20/2020

Thank you for choosing NVL Labs, we appreciate your business!

Thanks & Regards,

Client Services
Appendix D.  Lead Analytical Results
October 19, 2020

Aaron Heath
AECOM-Sealke
1111 3rd Avenue Ste. 1600
Seattle, WA 98101

RE: Total Metal Analysis
Method: EPA 7000B Lead by FAA <paint>
Item Code: FAA-02

Client Project: 60644182
Location: Gero E Wing

Dear Mr. Heath,

NVL Labs received 5 sample(s) for the said project on 10/15/2020. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B, unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Shalini Patel, Lab Supervisor

Enc.: Sample results
### Analysis Report

#### Total Lead (Pb)

**Client:** AECOM-Seattle  
**Address:** 1111 3rd Avenue Ste. 1600  
Seattle, WA 98101  

**Attention:** Mr. Aaron Heath  
**Project Location:** Gero E Wing

---

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #</th>
<th>Sample Weight (g)</th>
<th>RL in mg/Kg</th>
<th>Results in mg/Kg</th>
<th>Results in percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20110664</td>
<td>G-Pb1-01</td>
<td>0.2018</td>
<td>50</td>
<td>&lt;50</td>
<td>&lt;0.0050</td>
</tr>
<tr>
<td>20110665</td>
<td>G-Pb2-01</td>
<td>0.1913</td>
<td>52</td>
<td>&lt;52</td>
<td>&lt;0.0052</td>
</tr>
<tr>
<td>20110666</td>
<td>G-Pb3-01</td>
<td>0.1821</td>
<td>55</td>
<td>&lt;55</td>
<td>&lt;0.0055</td>
</tr>
<tr>
<td>20110667</td>
<td>G-Pb4-01</td>
<td>0.1920</td>
<td>52</td>
<td>59</td>
<td>0.0059</td>
</tr>
<tr>
<td>20110668</td>
<td>G-Pb5-01</td>
<td>0.1987</td>
<td>50</td>
<td>&lt;50</td>
<td>&lt;0.0050</td>
</tr>
</tbody>
</table>

**Batch #:** 2017269.00  
**Matrix:** Paint  
**Method:** EPA 3051/7000B  
**Client Project #:** 60644182  
**Date Received:** 10/15/2020  
**Samples Received:** 5  
**Samples Analyzed:** 5

---

**Sampled by:** Client  
**Analyzed by:** Yasuyuki Hida  
**Reviewed by:** Shalini Patel  
**Date Analyzed:** 10/16/2020  
**Date Issued:** 10/19/2020  
**Bench Run No:** 2020-1016-4  
**FAA-02**

---

mg/Kg = Milligrams per kilogram  
RL = Reporting Limit  
'<' = Below the reporting Limit  
Note: Method QC results are acceptable unless stated otherwise.  
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.
Company: AECOM-Seattle
Address: 1111 3rd Avenue Ste. 1600
Seattle, WA 98101

Project Manager: Mr. Aaron Heath
Phone: (206) 438-2700

NVL Batch Number: 2017269.00
TAT: 3 Days
AH: No
Rush TAT: No

Due Date: 10/20/2020
Time: 1:35 PM
Email: Aaron.heath@aecom.com
Fax: (866) 495-5288

Project Name/Number: 60644182
Project Location: Gero E Wing

Subcategory: Flame AA (FAA)
Item Code: FAA-02
EPA 7000B Lead by FAA <paint>

Total Number of Samples: 5
Rush Samples: No

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20110664</td>
<td>G-Pb1-01</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>20110665</td>
<td>G-Pb2-01</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>20110666</td>
<td>G-Pb3-01</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>20110667</td>
<td>G-Pb4-01</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>20110668</td>
<td>G-Pb5-01</td>
<td>A</td>
</tr>
</tbody>
</table>

Print Name: Emily Schubert
Signature: 10/15/20 3:38 PM
Company: NVL
Date: 10/15/20
Time: 1335

Special Instructions:

Office Use Only
Print Name: Emily Schubert
Signature: 10/15/20 3:38 PM
Company: NVL
Date: 10/15/20
Time: 1335

Received by: Emily Schubert
Analyzied by: Yasuyuki Hida
Results Called by: NVL
Fax: No
Emailed: No

Date: 10/15/2020
Time: 3:38 PM
Entered By: Emily Schubert
**Company**: AECOM  
**Address**: 1111 3rd Avenue, Suite 1600  
**Seattle, WA 98101**  
**Phone**: 206-438-2700  
**Project Manager**: Aaron Heath  
**Cell**:  
**Email**:  
**Fax**:  

**Project Name/Number**: 60644182  
**Project Location**: Gero E Wing  

| Total Metals | GFAA (ppm) | Air Filter | Paint Chips (%) | Soil | RCRA 8 | Barium | Chromium | Silver | Copper | TCLP | GFAA (ppm) | ICPre | CVFAA (ppm) | Other | RCRA 11 | 
|--------------|------------|------------|----------------|------|--------|--------|----------|--------|--------|-------|------------|-------|-------------|-------|---------|-------|
| ☑            | ☑          | ☑          |                 |      |        |        |          |        |        | ☑     | ☑          | ☑     | ☑           |       | ☑       |       |

**Reporting Instructions**  
- ☐ Call ( )  
- ☑ Fax ( )  
- ☑ Email mike.kosoff@aecom.com

**Total Number of Samples**: 5

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G- Pb1-01</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>n- Pb2-01</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>n- Pb3-01</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>n- Pb4-01</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>n- Pb5-01</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sampled by**: Mike Kosoff  
**Relinquish by**: Mike Kosoff  
**Date/Time**: 10/13/2020 11:00

**Office Use Only**

**Received by**: [Signature]  
**Analyzed by**: [Signature]  
**Called by**: [Signature]  
**Faxed/Email by**: [Signature]  
**Date/Time**: 10/15/20 13:35
Appendix E. Personnel and Laboratory Accreditations
Certificate of Completion

This is to certify that

Mike A. Kosoff

has satisfactorily completed
4 hours of online refresher training as an
AHERA Building Inspector

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

EPA Provider # 1085

178882
Certificate Number

Instructor: Andre Zwanenburg

ARGUS PACIFIC, INC / 21905 64th AVE W, SUITE 100 / MOUNTLAKE TERRACE, WASHINGTON 98043 / 206.285.3373 / ARGUSPACIFIC.COM

Sep 9, 2020
Date(s) of Training

Exam Score: N/A
(if applicable)

Expires in 1 year.
NVLAP LAB CODE: 102063-0

NVL Laboratories, Inc.
Seattle, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2020-07-23 through 2021-09-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program
SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

NVL Laboratories, Inc.
4708 Aurora Avenue N.
Seattle, WA 98103
Mr. Nghiep Vi Ly
Phone: 206-547-0100  Fax: 206-634-1936
Email: nick.l@nvllabs.com
http://www.nvllabs.com

ASBESTOS FIBER ANALYSIS

Bulk Asbestos Analysis

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18/A01</td>
<td>EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples</td>
</tr>
<tr>
<td>18/A03</td>
<td>EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials</td>
</tr>
</tbody>
</table>

For the National Voluntary Laboratory Accreditation Program

Effective 2020-07-23 through 2021-09-30
March 29, 2019

Nghiep Vi Ly
NVL Laboratories, Inc.
4708 Aurora Avenue N.
Seattle, WA 98103

Dear Mr./Ms. Ly:

Congratulations! The AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC’s Analytical Accreditation Board (AAB) has approved NVL Laboratories, Inc. as an accredited Industrial Hygiene, Environmental Lead, Environmental Microbiology and Unique Scope laboratory.

Accreditation documentation includes the IHLAP, ELLAP, EMLAP and Unique Scopes accreditation certificate, scope of accreditation document and a copy of the current AIHA-LAP, LLC license agreement (if your completed agreement is not on file at AIHA-LAP, LLC). The accreditation symbol has been designed for use by all AIHA-LAP, LLC accredited laboratories. If your laboratory chooses to use the symbol in its advertising the laboratory’s accreditation, you must complete and return the AIHA-LAP, LLC license agreement to a Laboratory Accreditation Specialist. Once submitted, an electronic copy of the accreditation symbol will be sent to you.

Laboratory accreditation shall be maintained by continued compliance with IHLAP, ELLAP, EMLAP and Unique Scopes requirements (see Policy Modules 2B, 2C, 2D, 2E, and 6), which includes proficient participation in AIHA-LAP, LLC approved proficiency testing, demonstration of competency, or round robin program as indicated on the AIHA-LAP “Approved PT and Round Robin” webpage, its associated Scope/PT table, and as required in Policy Module 6, for all Fields of Testing (FoTs) for which the laboratory is accredited. An accredited laboratory that wishes to expand into a new FoT must submit an updated accreditation application to AIHA-LAP, LLC for review by the AAB.

Any changes in ownership, laboratory location, personnel, FoTs/Methods, or significant procedural changes shall be reported to AIHA-LAP, LLC in writing within twenty (20) business days of the change.

The accreditation certificate is the property of AIHA-LAP, LLC and must be returned to us should your laboratory withdraw or be removed from the IHLAP, ELLAP, EMLAP and Unique Scopes.

Again, congratulations. If you have any questions, please contact Lauren Schnack, Laboratory Accreditation Specialist, at (703) 846-0716.

Sincerely,

Cheryl O. Morton
Managing Director
AIHA Laboratory Accreditation Programs, LLC

acknowledges that

NVL Laboratories, Inc.
4708 Aurora Avenue N., Seattle, WA 98103
Laboratory ID: 101861
along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

✓ INDUSTRIAL HYGIENE Accreditation Expires: June 01, 2021
✓ ENVIRONMENTAL LEAD Accreditation Expires: June 01, 2021
✓ ENVIRONMENTAL MICROBIOLOGY Accreditation Expires: June 01, 2021
☐ FOOD Accreditation Expires:
✓ UNIQUE SCOPES Accreditation Expires: June 01, 2021

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Elizabeth Bair
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Date Issued: 03/29/2019

Revision 17 – 09/11/2018
The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory’s current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

**Industrial Hygiene Laboratory Accreditation Program (IHLAP)**

**Initial Accreditation Date:** 04/01/1997

<table>
<thead>
<tr>
<th>IHLAP Scope Category</th>
<th>Field of Testing (FoT) (FoTs cover all relevant IH matrices)</th>
<th>Technology sub-type/ Detector</th>
<th>Published Reference Method/Title of In-house Method</th>
<th>Method Description or Analyte (for internal methods only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectrometry Core</td>
<td>Atomic Absorption</td>
<td>FAA</td>
<td>NIOSH 7082</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inductively-Coupled Plasma</td>
<td>ICP/AES</td>
<td>NIOSH 7300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-ray Diffraction (XRD)</td>
<td></td>
<td>NIOSH 7500</td>
<td></td>
</tr>
<tr>
<td>Asbestos/Fiber Microscopy Core</td>
<td>Phase Contrast Microscopy (PCM)</td>
<td></td>
<td>NIOSH 7400</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Core</td>
<td>Gravimetric</td>
<td></td>
<td>NIOSH 0500</td>
<td>NIOSH 0600</td>
</tr>
</tbody>
</table>

A complete listing of currently accredited Industrial Hygiene laboratories is available on the AIHA-LAP, LLC website at: [http://www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org)
AIHA Laboratory Accreditation Programs, LLC
SCOPE OF ACCREDITATION

NVL Laboratories, Inc.  Laboratory ID: 101861
4708 Aurora Avenue N., Seattle, WA 98103
Issue Date: 03/29/2019

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory’s current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air and composited wipes analyses are not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)
Initial Accreditation Date: 02/07/1997

<table>
<thead>
<tr>
<th>Field of Testing (FoT)</th>
<th>Technology sub-type/ Detector</th>
<th>Method</th>
<th>Method Description (for internal methods only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paint</td>
<td></td>
<td>EPA SW-846 3051</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPA SW-846 7000B</td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td></td>
<td>EPA SW-846 3051</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPA SW-846 7000B</td>
<td></td>
</tr>
<tr>
<td>Settled Dust by Wipe</td>
<td></td>
<td>EPA SW-846 3051</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPA SW-846 7000B</td>
<td></td>
</tr>
<tr>
<td>Airborne Dust</td>
<td></td>
<td>NIOSH 7082</td>
<td></td>
</tr>
</tbody>
</table>

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: http://www.aihaaccreditedlabs.org

Effective: 10/14/2016
Scope_ELLAP_R7
Page 1 of 1
About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world’s built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of $6 billion.

More information on AECOM and its services can be found at www.aecom.com.