ASBESTOS SURVEY REPORT

Sonoma County Library
725 3rd St (History Annex)
Santa Rosa CA
June 7, 2018

755 Baywood Drive, 2nd Floor
Petaluma CA 94954
707-775-7800
steve@envirovue.com
6/12/2018

Sonoma County Library
725 3rd St (History Annex)
Santa Rosa CA

Re: Asbestos Survey for 725 3rd St (History Annex)

Dear Sonoma County Library

Envirovue LLC is pleased to submit the enclosed Asbestos Inspection Survey for this which was conducted on 6/7/2018. Your survey was performed by Steve Ramos a California Certified Asbestos Consultant.

If you are required to submit a form for asbestos demolition/renovation form to the Bay Area Air Quality Management District you will need the following information to complete your form:

- **Name of company that conducted survey**: Envirovue LLC
- **Address**: 755 Baywood Dr., Ste 220
- **City/State/Zip**: Petaluma, CA 94954
- **Phone**: (707) 775-7800
- **Name of person who completed the survey**: Steven Ramos CAC/CSST #: 17-6062

If you have questions or comments regarding the information in this report or if we can be of further assistance, please do not hesitate to contact the undersigned at (707) 775-7800.

Sincerely,

Envirovue LLC
Steve Ramos
CAC # 17-6062
EXECUTIVE SUMMARY

INTRODUCTION
At the request of Sonoma County Library, Envirovue performed a survey for asbestos-containing construction materials (ACCM) at the 725 3rd St (History Annex). The work was performed on 6/7/2018 by Steven Ramos, a Certified Asbestos Consultant (#17-6062). The scope of work was limited to surveying the acoustical ceiling texture. The scope of work was conducted in compliance with current state and federal asbestos regulations; a summary of applicable regulations is included in an appendix to this report. Effort was made to survey all accessible suspect materials.

Building Description
The property located at 725 3rd St (History Annex) was constructed at a date undetermined. The building's current use is as a commercial facility.

SUMMARY OF FINDINGS
The materials that were surveyed for this scope of work were collected and processed in accordance with industry best practices and regulation. The materials were packaged and shipped to an accredited lab for processing and analysis. The laboratory results did identify materials in the list submitted as asbestos-containing materials (above 1%).

- Acoustical Ceiling Texture – 7% chrysotile asbestos

GENERAL ASBESTOS INFORMATION

TYPES OF ASBESTOS
The word asbestos refers to several types of naturally occurring fibrous minerals. Deposits of asbestos are found throughout the world. The primary sites of commercial production are Canada, Russia, South Africa, and the United States. Asbestos gained widespread use in commercial products because it was readily available, inexpensive, and because it is strong, it does not burn, it does not conduct heat or electricity well, and it is impervious to chemical corrosion.

MEDICAL INFORMATION
The medical community has identified three primary diseases which can be linked to asbestos exposure; asbestosis, lung cancer, and mesothelioma of the pleura or the peritoneum. These asbestos-related diseases may have a latency period of 20-40 years. The primary route of exposure is inhalation of fibers. Asbestos is only considered a danger to human health when it is airborne and breathable.

Uses of Asbestos
Asbestos is comprised of a group of natural minerals. Unlike other minerals, however, the crystals of asbestos form long, thin fibers. Asbestos deposits are found throughout the world, but the primary sites of commercial asbestos production are Canada, Russia, and South Africa. Commercial mining of asbestos in the United States was halted in the 1980s. Once extracted from the earth, asbestos-containing rock is crushed, milled (or
ground), and graded. This produces long, thread-like fibers of material. What appears to the naked eye as a single fiber is actually a bundle of hundreds or thousands of fibers, each of which can be divided even further into tiny fibers (fibrils), invisible without the aid of a microscope. Asbestos materials are divided into two groups - serpentine and amphibole. All asbestos in the serpentine group is called Chrysotile. This is the most common type of asbestos found in buildings in the United States, accounting for approximately 95 percent of the asbestos found in the nation's buildings. It is commonly known as "white asbestos" because of its natural color. The amphibole group contains five types of asbestos. Amosite, the second most common type of asbestos found in buildings in the United States, is often referred to as "brown asbestos" for the color of the natural mineral. Crocidolite, or "blue asbestos" has been used in high-temperature insulation products and on chemical resistant surfaces, such as laboratory tables for chemistry and biology classes (upon occasion, the custodial staff will drill holes in table tops for new fixtures without realizing that the material may contain crocidolite. The remaining three types of asbestos in the amphibole group -- Anthophyllite, Tremolite, and Actinolite -- are rare and have little commercial value. They are occasionally found as contaminants or minor constituents in asbestos-containing materials.

ASBESTOS INSPECTION METHODS AND PROCEDURES

INSPECTION PROCEDURES
If available and provided prior to the inspection, Envirovue reviewed the building's asbestos file for previously identified ACM. The inspection process began with a visual survey of the site for bulk debris or ash debris which may contain asbestos. The suspect materials identified were then described and categorized into homogeneous areas. Homogeneous areas consist of suspect materials that are identical in color, appearance, pattern, texture, and date of installation. Samples were collected in accordance with AHERA requirements detailed at 40CFR Part 763, Subpart E.

SAMPLING METHODS
All of the suspect materials identified were described and categorized into homogeneous areas (HAs). An HA consists of all identified material found in various locations in a building that are identical in color, appearance, pattern, texture, and date of installation. The HA can be described only within a single building (i.e., red floor tile in different buildings on the same campus, even if installed on the same day, compose different HAs). The asbestos inspection was conducted according to modified Asbestos Hazard Emergency Response Act (AHERA) guidelines using a minimum number of samples collected from each HA, which meets the sampling criteria found in 29 CFR 1926.1101. Samples of suspect miscellaneous materials were collected in a randomly distributed manner sufficient to determine whether the materials were asbestos containing. No samples were collected from any HA where the inspector determined that the material was non-ACM (such as carpet, carpet pad without mastic, foam, glass, wood, rubber, ceramic tile, etc.). Samples were obtained with tools designed to penetrate a material without creating excessive dust. A utility knife, chisel, and coring sleeve were utilized, rather than scratching a sample from the surface of suspect materials, in an effort to obtain a sample that was representative of all layers of the material. The area was pre-wetted to reduce fiber generation during the sampling process. Envirovue sampling procedures incorporate the use of plastic zip-lock bags labeled in a unique numbering sequence to store the bulk samples. Information about bulk samples, including the sample number and material description, were noted on the chain-of-custody sheets as each sample was collected. Analytical results and laboratory chain-of-custody sheets are included in the appendices of this document.
Bulk samples were submitted to the laboratory under chain of custody and analyzed by PLM using EPA Method 600/R-93/116, July 1993, in accordance with 40 CFR 763, Subpart F, Appendix A (AHERA), and if applicable, the point Count Method 600/R-93/116, July 1993, by Forensic Analytical located in Hayward CA.

Bulk samples of suspected ACM were examined under a stereomicroscope to identify suspect fibers. A polarized light microscope equipped with a dispersion staining objective lens was used to determine which of the suspect fibers are asbestos. The various asbestos minerals were identified on the basis of their unique optical characteristics. Reported asbestos percentages were based on visual volume estimates. Laboratory analysis reports and chain of custody are provided as an attachment to this report.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Functional Space</th>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEX-01</td>
<td>Literacy Center</td>
<td>Off white acoustical ceiling texture</td>
</tr>
<tr>
<td>TEX-02</td>
<td>Literacy Center</td>
<td>Off white acoustical ceiling texture</td>
</tr>
<tr>
<td>TEX-03</td>
<td>Literacy Center</td>
<td>Off white acoustical ceiling texture</td>
</tr>
</tbody>
</table>

**AHERA MATERIALS CLASSIFICATION**

**SURFACING MATERIAL**

Interior ACBM that has been sprayed on, troweled on, or otherwise applied to surfaces (structural members, walls, ceilings, etc.) for acoustical, decorative, fireproofing, or other purposes. This includes acoustical plaster, hard plasters (wall or ceiling), fireproofing insulation, spray-applied or blown-in thermal material, joint or patching compound (wall or ceiling), and textured paints or plasters.

**THERMAL INSULATION (TSI)**

Insulation used to control heat transfer or prevent condensation on pipes and pipe fittings, boilers, breeching, tanks, ducts, and other parts of hot and cold water systems; heating, ventilation, and air conditioning (HVAC) systems; or other mechanical systems. These insulation materials include pipe lagging, pipe wrap, HVAC duct insulation, block insulation, cements and muds, and a variety of other products such as gaskets and ropes.

**MISCELLANEOUS MATERIALS**

Other, mostly non-friable products and materials found on structural components, structural members or fixtures, such as floor tile, ceiling tile, construction mastic for floor and ceiling materials, sheet flooring, fire doors, asbestos cement pipe and board, wallboard, acoustical wall tile, and vibration damping cloth. “Miscellaneous materials” do not include thermal system insulation or surfacing materials.

**ASBESTOS RESULTS AND RECOMMENDATIONS**

**Findings and Results**

A total of 3 bulk samples of suspect building materials were collected. The sample analysis was conducted by Forensic Analytical in Hayward CA, a registered and certified asbestos laboratory utilizing Polarized Light Microscopy (PLM) methodology. The laboratory is accredited for PLM analysis by both the
American Industrial Hygiene Association (AIHA) and the National Voluntary Laboratory Accreditation Program (NVLAP). PLM analysis requires the microscopist to take a portion of the sample and treat it with an oil of specific refractive index. The prepared slide is then subjected to a variety of tests while being viewed under varying polarizations of light. Each type of asbestos displays unique characteristics when subjected to these tests. Percentages of the identified types of asbestos are determined by visual estimation.

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Functional Space</th>
<th>Percent Asbestos</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off white acoustical ceiling texture</td>
<td>Literacy Center</td>
<td>7%</td>
<td>RACM</td>
</tr>
</tbody>
</table>

**SUMMARY RECOMMENDATIONS**

**Asbestos Containing Materials Were Present in the Samples Collected.** Envirovue recommends that any material which cannot be adequately identified as having been previously tested negative, be assumed to be asbestos-containing until such time as testing proves otherwise.

The off white acoustical ceiling texture material is water damage in one or more locations and considered a friable asbestos containing material. Based on the presence of asbestos and the existing damage it is our recommendation that you pursue an abatement of this condition promptly.

**Definition of Asbestos-Containing Materials**

The EPA’s Asbestos NESHAPs and the Air Quality Management District (AQMD), the local air pollution control district, define an asbestos-containing material as any material that contains a concentration of asbestos of greater than one percent (＞1.0%) by area as determined by Polarized Light Microscopy (PLM) [Federal Register, Volume 59, No. 146, August 1, 1994, P. 38970-38971]. NESHAPs and AQMD further segregate asbestos-containing materials into Regulated Asbestos-Containing Materials (RACM), Category I Non-Friable Materials, and Category II Non-Friable Materials, which are defined as follows:

**Regulated Asbestos-Containing Materials (RACM)/Asbestos-Containing Materials (ACM):** Includes all friable asbestos materials, Category I/Class I Nonfriable ACM that have become friable or will become friable, and Category II/Class II Nonfriable ACM that have a high probability of being crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of renovation or demolition.

Category I Nonfriable ACM/Class I Nonfriable ACM: Includes asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products that when dry can be crumbled, pulverized, or reduced to powder by hand pressure.

Category II Nonfriable ACM/Class II Nonfriable ACM: Includes all non-friable materials, excluding Category I/Class I Nonfriable ACM that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

**Definition of Asbestos-Containing Construction Materials**
The California Department of Occupational Safety and Health (Cal/OSHA) further defines an asbestos-containing construction material (ACCM) as a material that contains greater than one-tenth of one percent (>0.1%) asbestos. Prior to demolition of a building, most of the air quality districts in California require abatement of friable ACM as well as non-friable ACM that may become friable during demolition.

Federal occupational Safety and Health Administration (OSHA) regulations, locally enforced by CAL/OSHA, defines ACM as substances that contain greater than 1% asbestos. CAL/OSHA also mandates special training, medical exams, personal protective equipment and record keeping for employees working with ACM. If materials contain less than 1% asbestos but more than 0.1% asbestos, the material may be disposed of as non-ACM, but CAL/OSHA requirements still have to be followed regarding workers’ protection and Contractor licensing.

The trace materials are currently regulated in California and require the following:

- Removal using wet methods
- Prohibition of removal using an abrasive saw or methods which would aerosolize the materials
- Prompt cleanup of the impacted zone, using HEPA-filtered vacuums, as applicable
- Employer registration by CAL/OSHA for removal quantities exceeding 100 sq. ft. per year
- CAL/OSHA carcinogen Registration by the Demolition or abatement contractor impacting such material.

**ADDITIONAL INFORMATION**

**CONFIDENTIALITY & LIMITATIONS**

This report was prepared for the sole use of the client(s) the only intended beneficiaries of our work. No other party should rely on the information contained herein without prior written consent of Envirovue LLC and the Client(s). Envirovue LLC understands that our services to the Client are to be held in strict confidence. Envirovue LLC will not discuss or disclose any information about our services to any third party without the Client’s consent.

This survey was planned and implemented on the basis of a mutually agreed scope of work. The survey was conducted in conformance with generally accepted current standards for identifying and evaluating asbestos in construction materials. Envirovue LLC uses only qualified professionals to perform building surveys; reasonable effort was made to survey accessible suspect materials. By nature of the conditions related to fire, there may be debris which was not identified or assessed because it was inaccessible (i.e. below layers of other immovable debris). As such, if there are suspect materials identified during the debris removal process that were not analyzed due to this limitation you should stop work and call our office for further testing of those materials. Additional suspect but un-sampled materials could be located between walls, in voids, or in other inaccessible areas; caution should be exercised regarding these areas. Envirovue LLC cannot warrant that these buildings do not contain ACCM in locations other than those noted in this report.

Envirovue LLC’s assessment of the risk of exposure to airborne asbestos fibers followed generally accepted protocols and is based on conditions at the time of the survey. Envirovue LLC is not responsible for changes in conditions or accepted protocols subsequent to our site visit.
Asbestos can cause asbestosis, lung cancer, and mesothelioma. The onset of asbestosis has been linked to the concentration of the asbestos dust, the type of asbestos fiber in the dust, and the length of exposure. It is a progressive disease that may develop fully 20 to 30 years after the first exposure. It is characterized by scarring of the lungs, and will significantly decrease the ability of the lungs to exchange air.

Mesothelioma, or cancer of the lining of the lung or abdominal cavity, may occur without evidence of asbestosis. Mesothelioma may occur after a short, intensive exposure to asbestos fibers. Approximately 85 percent of all mesothelioma cases are attributable to asbestos exposure. According to the Department of Labor, information is insufficient at the present time to set an exposure standard (other than zero) that could assure the prevention of mesothelioma in all workers, since the disease may occur following a very limited exposure 10 to 15 years earlier. People exposed to industrial concentrations of asbestos are at risk five times greater than the general public of developing lung cancer.

Cigarette smoking is strongly implicated as a “co-carcinogen” among asbestos workers. Calculations suggest that cigarette-smoking asbestos workers have approximately 50 to 90 times the risk of developing lung cancer compared with other smokers.
725 3RD ST (HISTORY ANNEX)

- Work
- Water damaged asbestos ceiling
- Office 2
- Office 1
- Exit/Entrance
- Desk
- Conference Room

12 ft
Analysis Report
prepared for
Envirovue, LLC

Report Date: 6/11/2018

Project Name: 725 3rd St Santa Rosa CA (Geneology Annex)

SanAir ID#: 18024055
Dear Steve Ramos,

We at SanAir would like to thank you for the work you recently submitted. The 3 sample(s) were received on Friday, June 08, 2018 via FedEx. The final report(s) is enclosed for the following sample(s): TEX-01, TEX-02, TEX-03.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

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Final Report Includes:
- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:
- 3 samples in Good condition.
### Asbestos Bulk PLM EPA 600/R-93/116

<table>
<thead>
<tr>
<th>SanAir ID / Description</th>
<th>Stereoscopic Appearance</th>
<th>% Fibrous</th>
<th>% Non-fibrous</th>
<th>Asbestos Fibers</th>
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</thead>
<tbody>
<tr>
<td>TEX-01 / 18024055-001</td>
<td>Off-White Non-Fibrous</td>
<td>93% Other</td>
<td>7% Chrysotile</td>
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<td>Work Area/ Hallway Acoustical Ceiling Texture</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analyst: Moore, Brandi

Analysis Date: 6/11/2018

Approved Signatory: [Signature]

Date: 6/11/2018
Disclaimer

The final report cannot be reproduced, except in full, without written authorization from SanAir. Fibers smaller than 5 microns cannot be seen with this method due to scope limitations. The accuracy of the results is dependent upon the client’s sampling procedure and information provided to the laboratory by the client. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the sample and information provided by the client. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Samples are held for a period of 60 days.

For NY state samples, method EPA 600/M4-82-020 is performed.

Polarized-light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Asbestos Certifications
NVLAP lab code 200870
City of Philadelphia: ALL-460
PA Department of Environmental Protection Number: 68-05397
California License Number: 2915
Colorado License Number: AL-23143
Connecticut License Number: PH-0105
Massachusetts License Number: AA000222
Maine License Number: LB-0075
New York ELAP lab ID: 11983
Rhode Island License Number: AAL-126
Texas Department of State Health Services License Number: 300440
Commonwealth of Virginia 3333000323
Washington State License Number: C989
West Virginia License Number: LT000566
Vermont License: AL166318

Revision Date: 11/30/2017