## **ASBESTOS SURVEY REPORT**





755 Baywood Drive, 2<sup>nd</sup> 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 6/7/2018Your 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 buildings current use is as a commercial facility.

#### SUMMARY OF FINDINGS

The materials that were surveyed for this scope of work for 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 buildings 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 1: Mat	erials Sampled
Sample ID	Functional Space	Material Description
TEX-01	Literacy Center	Off white acoustical ceiling texture
TEX-02	Literacy Center	Off white acoustical ceiling texture
TEX-03	Literacy Center	Off white acoustical ceiling texture

#### 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 3: N	IESHAP Asbestos Classific	ation Table	
Material Description	Functional Space	Percent Asbestos	Classification
Off white acoustical ceiling texture	Literacy Center	7%	RACM

#### 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 asbestoscontaining 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 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 no 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 HEALTH EFFECTS

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)

Sketch







# **The Identification Specialists**

## Analysis Report prepared for Envirovue, LLC

Report Date: 6/11/2018

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

SanAir ID#: 18024055



NVLAP LAB CODE 200870-0

1551 Oakbridge Dr. Suite B | Powhatan, Virginia 23139-8061 888.895.1177 | 804.897.1177 | fax: 804.897.0070 | IAQ@SanAir.com | SanAir.com



Name: Envirovue, LLC Address: 755 Baywood Drive, Suite 220 Petaluma, CA 94954 Phone: 707-775-7800 SanAir ID Number **18024055** FINAL REPORT 6/11/2018 9:30:44 AM

Project Number: P.O. Number: Project Name: 725 3rd St Santa Rosa CA (Geneology Annex) Collected Date: 6/7/2018 Received Date: 6/8/2018 9:40:00 AM

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,

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Sandra Sobrino Asbestos & Materials Laboratory Manager SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter

- Analysis Pages

- Disclaimers and Additional Information

Sample conditions: - 3 samples in Good condition.



SanAir ID Number **18024055** FINAL REPORT 6/11/2018 9:30:44 AM

Name: Envirovue, LLC Address: 755 Baywood Drive, Suite 220 Petaluma, CA 94954 Phone: 707-775-7800 Project Number: P.O. Number: Project Name: 725 3rd St Santa Rosa CA (Geneology Annex) Collected Date: 6/7/2018 Received Date: 6/8/2018 9:40:00 AM

Analyst: Moore, Brandi

### Asbestos Bulk PLM EPA 600/R-93/116

	Stereoscopic	Cor	nponents	
SanAir ID / Description	Appearance	% Fibrous	% Non-fibrous	Asbestos Fibers
TEX-01 / 18024055-001 Work Area/ Hallway Acoustical Ceiling Texture	Off-White Non-Fibrous Heterogeneous		93% Other	7% Chrysotile
TEX-02 / 18024055-002 Work Area/ Hallway Acoustical Ceiling Texture	Off-White Non-Fibrous Heterogeneous		93% Other	7% Chrysotile
TEX-03 / 18024055-003 Work Area/ Hallway Acoustical Ceiling Texture				Not Analyzed

Analyst: Brand Moore

Approved Signatory:

5 Jail tot

Date: 6/11/2018

Analysis 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 Citv 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

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Environue LLC - L1060 Steve Ramos 707-775-7800   Rotameter   725 3rd St Santa Rosa CA (Genealogy Annex)   6/7/2018   Next Day     steve@environue.com   Rotameter   Positive Stop   2rd positive Stop   Group #   Iteracy Area/Conf Room Evaluation   Next Day     Bulk Asbestos   Sample L OC ATION   Sample L OC ATION   PLM EPA 600/R-93/116   Not Es / sample L DESCRIPTION   Not Es / sample L DESCRIPTION   Not Es / sample L DESCRIPTION   TEX-01   Work Area/Hallway   PLM EPA 600/R-93/116   Off white acoustical ceiling texture   Off white acoustical ceiling texture		Off white acoustical ceiling texture		PLM EPA 600/R-93/116	rk Area/Hailway	We	TEX-03
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