



**AMERICAN COMPLIANCE SERVICES, LLC**

**LIMITED ASBESTOS AND LEAD SURVEY  
Fusselman Hall – Boiler Rooms 18 & 25  
Marin Community College  
Kentfield, California**



**PREPARED FOR:**

**Ms. Heidi Rank**  
College of Marin  
835 College Avenue  
Kentfield, CA 94904-2551

**PREPARED BY:**

**American Compliance Services, LLC**  
554 Morning Glory Drive  
Benicia, California 94510

**DATE PREPARED:**

February 12, 2016

# TABLE OF CONTENTS

	SECTION
EXECUTIVE SUMMARY .....	I
SCOPE OF WORK .....	II
DEFINITIONS .....	III
ASBESTOS INSPECTION RESULTLS & FINDINGS.....	IV
LEAD INSPECTION RESULTLS & FINDINGS .....	V
METHODS .....	VI
NOTICE, PERMITS, AND LICENCES .....	VII
LIMITATIONS & EXCLUSIONS .....	VIII
TECHNICAL STAFF SIGNATURES.....	IX
CERTIFICATE OF REPORT	

## APPENDICES

Sample Location Map(s)  
Laboratory Results  
    Asbestos  
    Lead  
Photographs  
Consultants Certifications

## SECTION I EXECUTIVE SUMMARY

On January 28, 2016, American Compliance Services, LLC (ACS) conducted a limited supplemental asbestos survey of the boiler rooms at Fusselman Hall, at the Marin Community College, in Marin, California. Wendy Plank, a Certified asbestos Consultant (CAC) and Karina Palacios and Sofia Corona, EPA Accredited Asbestos Building Inspectors, conducted the survey.

Ninyo & Moore conducted the original survey on October 7, 2005. ACS reviewed the survey report from 2005 and listed the previous homogeneous material for reference during this survey. ACS sampled unidentified material and performed confirmation sampling to verify previous sample results and to ascertain if the original material was replaced with new material.

## SECTION II SCOPE OF WORK

The purpose of this survey was to identify the materials that could contain asbestos or lead that will be impacted during installation of mechanical upgrades in boiler rooms 18 and 25. ACS sampled the material as indicated by the project manager. **Should the final construction plans change and require penetration into materials not included in this report, additional sampling and analysis will be required at this site.**

## SECTION III DEFINITIONS

Material (ACM) if at least one sample collected from the homogeneous area shows asbestos present in an amount greater than one percent (>1%). California Code of Regulations (CCR) 1529 defines Asbestos Containing Construction Material (ACCM) as materials containing greater than one-tenth of one-percent (0.1) asbestos by weight. Under 1529 CCR, materials containing between 0.1 % and 1 % asbestos are still regulated as "other" operations by this standard. The ACCM designation is applicable only to reporting (user registration, temporary worksite notification, and incident reporting).

The removal or disturbance of 100 square feet or more of ACM or ACCM must be performed by a contractor certified by the California Contractor's State License Board to conduct asbestos-related work and/or an employer/contractor registered with the California Division of Occupational Safety and Health (DOSH) to perform asbestos-related work.

## NESHAP CATEGORIES

**RACM (Friable Materials)** - NESHAP defines a friable ACM as any material containing more than one percent asbestos, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

**Category I Non-friable (CAT I NF)** NESHAP defines a Category I non-friable ACM as packing, gaskets, resilient floor covering (except sheet flooring products which are considered friable), and asphalt roofing products which contain more than one percent asbestos.

**Category II Non-friable (CAT II NF)** NESHAP defines a Category II non-friable ACM as any material, except for a Category I non-friable ACM, which contains more than one- percent asbestos and cannot be reduced to a powder by hand pressure when dry.

## OSHA Definitions

1. **Surfacing Materials** (spray or trowel applied to building members)
2. **Thermal System Insulation** (materials generally applied to various mechanical systems)
3. **Miscellaneous Materials** (any materials which do not fit either of the above categories)

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

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

**"Class III asbestos work"** means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.

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

### **CAL-OSHA Lead Definitions**

The Cal/OSHA Lead in Construction Standard 1532.1 regulations takes effect when employees disturb lead coatings or materials that contain any detectable levels of lead. California OSHA regulations assume exposures above the Permissible Exposure Level (PEL) where lead coatings or paint with lead at any level is present when "trigger" tasks are performed until an exposure assessment is conducted. The contractor must comply with this regulation when disturbing lead containing paint or materials.

### **EPA / CDPH Lead Definitions**

The CDPH, Title 17, California Code of Regulations, Division 1, Chapter 8, Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards, defines lead based paint as any coating containing lead at or above 1.0 Milligram/Centimeter Squared (mg/cm<sup>2</sup>) and/or 5,000 parts per million (ppm) of lead or 0.5 % lead by weight or greater. A 24-hour notification is required to OSHA before disturbing lead-based paint.

Disturbing lead-based paint without containment is considered a lead hazard by the EPA and CDPH, and impact to these painted surfaces must be done in accordance with the established regulations and procedures.

Lead contaminated dust means dust levels on interior floors in excess of 40 micrograms per square foot (40 µg/sq. Ft.), 250 µg/sq. Ft. for interior horizontal surfaces, and 400 µg/sq. Ft. for exterior horizontal surfaces.

Lead-contaminated soil means bare soil that contains an amount of lead equal to, or in excess of, 400 parts per million (ppm) in children's play areas and 1,000 ppm in all other areas.

**SECTION IV  
 ASBESTOS INSPECTION RESULTS & FINDINGS**

ACS collected twenty-six samples from the boiler rooms for asbestos analysis. Sampling locations were chosen to be representative of the homogeneous material. Inspection and sampling procedures were performed in general accordance with the guidelines published by the Environmental Protection Agency (EPA) in 40 CFR Part 763 Subpart E, October 30, 1987. The laboratory identified asbestos in the following material:

**Room 18**

- Compound on Fiberglass wrapped Pipes 2%
- Leveling Compound on Base Cove 8%
- Pipe Elbow (1) 20% Amosite

**Room 25**

- Drywall Joint Compound 4%
- Pipe Elbow (5) assumed 20% Amosite

**Asbestos Sample Results 1/28/2016**

SAMPLE NUMBER	MATERIAL DESCRIPTION	SAMPLE LOCATION/HOMOGENEOUS AREA	NESHAPS / OSHA CATEGORIES	% ASBESTOS	ESTIMATED QUANTITY
FH-01-1 FH-01-2 FH-01-3	12" Boiler Pipe Insulation	Top of Boiler Room 18	NA	Mesh: ND Insulation: ND	NA
FH-02-4 FH-02-5 FH-02-6 FH-11-23 FH-11-24 FH-11-25	Pipe End Cap Insulation	Pipe Ends Throughout Room 18 & 25	NA	Compound: ND Fiberglass Layer: ND	NA
FH-03-7 FH-03-8 FH-03-9	Compound on Fiberglass Wrapped Pipes	Smearred Randomly on Pipe Jackets Throughout Room 18	RACM / Class II	Compound: 2% CH Fiberglass Layer: ND	91LF
FH-04-10 FH-12-26 FH-12-27	Plaster	Room 18 & 25	NA	ND	NA
FH-05-11	Orange Base Cove / Mastic	Room 18 (pile)	CAT II NF Class II	Base Cove: ND Mastic (Brown): ND Leveling Compound: 8% CH	8 SF
FH-6-12 FH-6-13 FH-6-14	Tape / Glue on Ducts	Room 25	NA	Tape: ND Glue: ND	NA
FH-7-15 FH-7-16 FH-7-17	Drywall, Tape, Compound	Ceiling of Room 25	Unclassified* / Class II	Drywall: ND Tape Compound: 4% CH Tape: ND Composite: 0.025 % by Point count	980 SF
FH-08-19	Paper / Foil Bands on Fiberglass Pipe Jackets	Throughout pipe Jackets in Room 25	NA	Paper: ND Foil: ND Glue: ND Fiberglass Layer: ND	NA
FH-09-20 FH-09-21 FH-09-22	Fiberglass Pipe Jackets	Throughout pipe Jackets in Room 25	NA	Paper: ND Foil: ND Glue: ND Fiberglass Layer: ND	NA

NA: Asbestos classification and estimated quantities are not applicable for non-asbestos containing material; ND: Non-Detect; SF Square Feet; CH: Chrysotile asbestos type; \* <1% verified using point count, and non-classified for NESHAP.

**Asbestos Sample Results (Continued)**

SAMPLE NUMBER	MATERIAL DESCRIPTION	SAMPLE LOCATION/ HOMOGENEOUS AREA	NESHAPS / OSHA CATEGORIES	% ASBESTOS	ESTIMATED QUANTITY
	Mudded Pipe Elbows	Rooms 18 and 25	RACM* / Class I	20% Amosite (Previously Tested)	Rm 18: 1 Rm 25: 5 5 SF Total

Since the survey was done, an asbestos licensed contractor has removed the following material:

- Mudded elbows in room 25 and orange base cove in Room 18.

The Contractor must obtain all building and special permits required for the asbestos abatement work. The work must be performed by an entity that holds a current, valid asbestos handling license issued by the California State Contractor’s Licensing Board (SCLB) and a current valid Certificate of Registration for Asbestos-Related Work issued by the California Department of Industrial Relations-Division of Occupational Safety and Health (DOSH), unless otherwise specified.

The drywall systems with asbestos containing joint compound was composited **and 400 point-counted**, and determined to contain <1% asbestos. Building material <1% asbestos are unclassified for NESHAPS regulations regarding hazardous waste disposal, containment requirements, 10 day notification and fee, although it is still a Class II abatement job under CAL-OSHA 1529.1.

**SECTION V  
 LEAD INSPECTION RESULTS & FINDINGS**

The majority of paint was observed to be intact and in good condition. One (1) lead sample was collected from a concrete wall in Room 25 where disturbance may be required when replacement of attachments occur. The paint is determined not to be lead-based. The laboratory results are presented in the table below.

**Lead Sample Results**

Sample #	Description and Location	Results	EPA/CDPH LBP Limit
P1	Yellow paint on concrete wall, Room 25	89 ppm	5,000 ppm

ppm: parts per million; EPA: Environmental Protection Agency; CDPH:CA Department of Public Health; LBP: Lead-Based Paint.

The Cal/OSHA Lead in Construction Standard 1532.1 regulations take effect when employees disturb lead coatings or materials that contain any detectable levels of lead. California OSHA regulations assume exposures above the Permissible Exposure Level (PEL) where lead is present in coatings or paint at any detectable level, when performing OSHA listed “Trigger Tasks”.

**SECTION VI  
 METHODS  
 ASBESTOS & LEAD INSPECTION**

Asbestos Inspection and sampling procedures were performed in general accordance with the guidelines published by the Environmental Protection Agency (EPA) in 40 CFR Part 763 Subpart

E, October 30, 1987. The survey consisted of three major activities: visual inspection and physical assessment, sampling, and quantification of building materials.

The paint samples taken were approximately 2 x 2 inches representing all potential layers. Testing locations were recorded on a diagram, as provided in the appendix.

## **QUANTIFICATION**

Quantities of accessible and/or exposed building materials that were confirmed to contain asbestos were estimated using the architectural drawings available and field measurements. Quantities reflect the total amount of material present. The exact quantity for removal is to be determined by the scope of work.

## **ANALYTICAL METHODS ASBESTOS BULK SAMPLE ANALYSIS**

Micro Analytical Laboratory in Emeryville, California performed the Asbestos analysis using Polarized Light Microscopy (PLM) with dispersion staining as described by the method of the determination of asbestos in bulk insulation, EPA/600/R-93/116, July 1993. This is a standard method of analysis in optical mineralogy and the currently accepted method for the determination of asbestos in bulk samples. A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The characteristic color displayed enables mineral identification. It should be noted that some ACM might not be accurately identified and/or quantified by PLM. As an example, the original fabrication of vinyl floor tiles routinely involved milling of asbestos fibers to extremely small sizes. As a result, these fibers may go undetected under the standard polarized light microscopy method. Transmission Electron Microscopy (TEM) is required for a more definitive analysis of these materials.

A chain-of-custody form submitted with the bulk samples, documented the possession of the samples from the time they were collected until they were analyzed. The original chain-of-custody accompanied the samples at all times. Custody documentation began at the time the sample was collected and a copy of the chain-of-custody record was retained by each transferor.

## **LEAD ANALYTICAL METHODS**

Sampling for lead-based paint was performed using bulk paint chip sampling. Lead analysis was performed by Micro Analytics, a NLLAP-accredited laboratory using the approved method for determination of lead in paint-chip samples. The lead analysis was performed using a Flame Atomic Absorption Spectrophotometer (FLAA) (Method SW 846 3050B/7000B). The FLAA was calibrated using a known lead standard. After the FLAA calibration procedure was completed, the lead-chip samples were analyzed by the FLAA.

## **SECTION VII NOTICE, PERMITS, AND LICENCES**

Hazardous materials removed during the abatement activities shall be disposed of in an approved manner complying with all applicable federal, state, and local regulations. The following notices, permits, and licenses are necessary for asbestos abatement work as of the date of this report. The Contractor is cautioned to verify these requirements as applicable to the final project scope and confirm that no new requirements exist.

## **LOCAL AIR QUALITY BOARD NOTIFICATION**

Written notification is required to the Local Area Air Quality Management District at least 10 days prior to beginning any work on specified quantities of friable, Regulated Asbestos-Containing Materials (RACM) and / prior to working on ACM using mechanical means or methods that will render the material friable.

## **CAL-OSHA NOTIFICATION**

Written notification to the California Occupational Safety and Health Administration (Cal-OSHA) is required by Cal-OSHA Asbestos Regulations (Title 8, Section 341.9) at least 24 hours prior to beginning any work on asbestos-containing materials.

Prior to the abatement, all employees, contractors, or other parties who may be affected by the abatement must be advised of activities pursuant to Cal-OSHA Asbestos and Lead Regulations (Title 8, Section 1529, Subpart K; Section 1532.1).

As necessary, the Contractor shall perform appropriate Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) testing for lead-contaminated waste as required by the applicable regulations, and by the requirements of the selected landfill(s).

## **SECTION VIII LIMITATION AND EXCLUSIONS**

American Compliance Services warrants that the findings contained herein have been prepared with the level of care and skill exercised by experienced and knowledgeable environmental consultants who are appropriately licensed or otherwise trained to perform asbestos / lead assessments pursuant to OSHA, as well as state and local agencies, as applicable. Our responsibility is limited to correcting any error or omission. No other liability is included or implied. We did not inspect or sample inaccessible areas such as behind walls or within ductwork and did not dismantle any part of the structure to survey inaccessible areas. Inaccessible is defined as areas of the building that could not be tested (sampled) without destruction of the structure or a portion of the structure.

Information and opinions presented herein apply to the existing and reasonable foreseeable site conditions at the time of our investigation. They cannot necessarily apply to site changes of which this office is unaware and has not had the opportunity to review. Changes in applicable standards may occur because of new legislation or from the broadening of knowledge. Accordingly, findings of this report may be invalidated wholly, or in part, by changes beyond our control.

American Compliance Services, LLC, trusts that the information presented herein provides the data you require. Should you have any questions or comments, please contact Wendy Plank. This report, and all available supporting documents and drawings used to prepare the report, have been reviewed by the undersigned, the personnel responsible for this project. The signatory affirms that the Asbestos Investigation documented herein was conducted in substantial conformance with applicable procedures documented in 40 CFR Part 763 – Asbestos, Subpart E – Asbestos Containing Materials in Schools [AHERA, June 24, 1992], and the EPA Guidance Manual “Asbestos Containing Materials in Buildings” (EPA 560/5-85-030a, October, 1985). The investigation by American Compliance Services, LLC, consisted solely of the activities described in this report and is subject to the Exceptions of Assessment, Limitations, and Service Constraints described herein.

**SECTION IX  
TECHNICAL STAFF SIGNATURES  
CERTIFICATE OF REPORT**

The following personnel were responsible for this asbestos survey. We (I) certify that information contained herein was collected on the dates recorded and the site described in this report.



Wendy J. Plank, CAC 01-2904  
Certified Asbestos Consultant  
CDPH Lead I/A Certification # 777



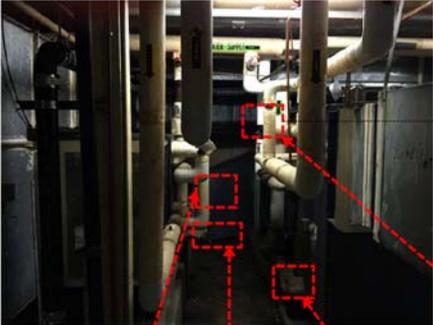
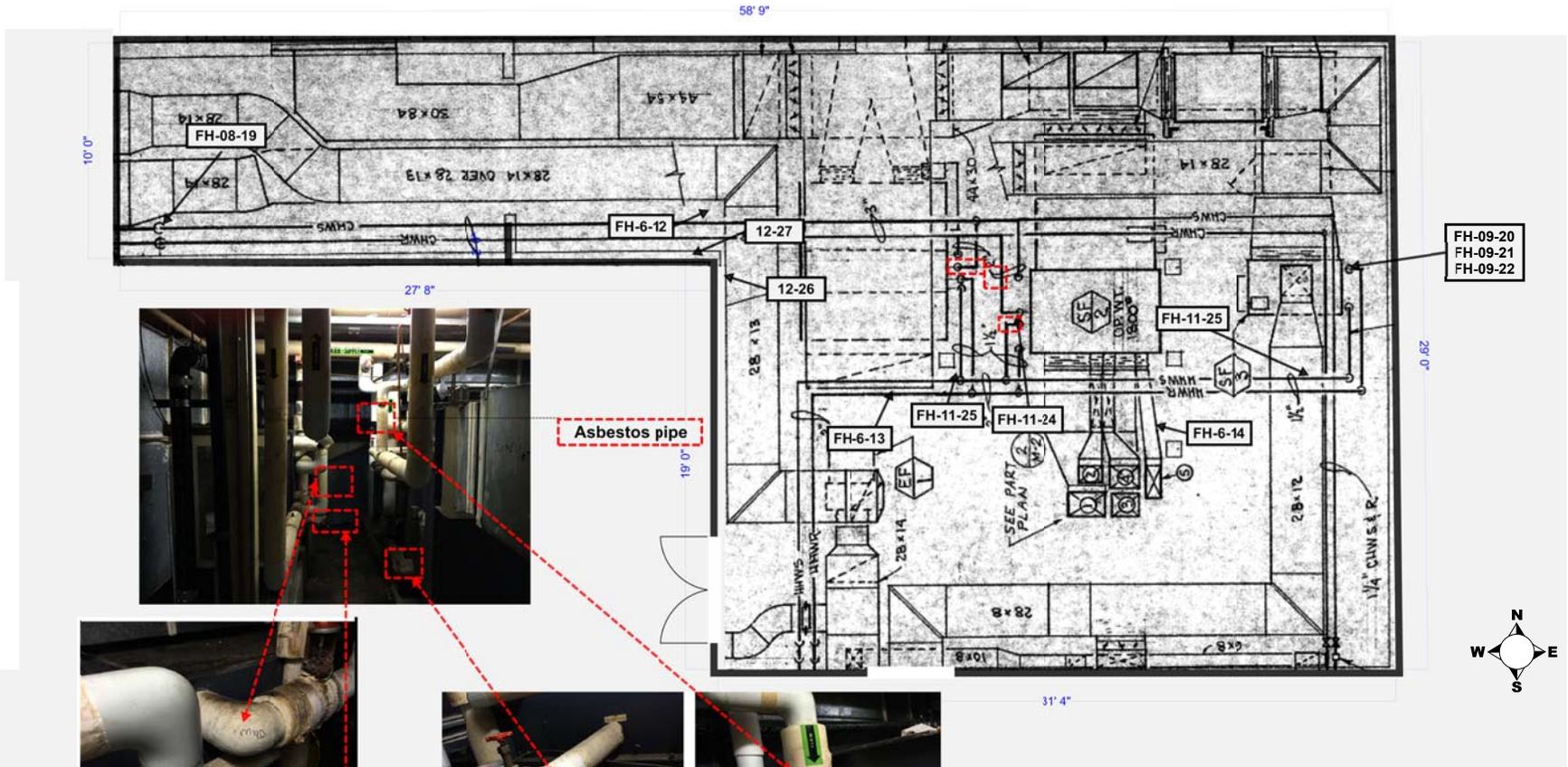
Sofia Corona,  
Supervisor 35460 SR  
Inspector 35437 IR



Karina Palacios,  
Supervisor 37498 SR  
Inspector 37284 IR

# SAMPLE LOCATION MAP



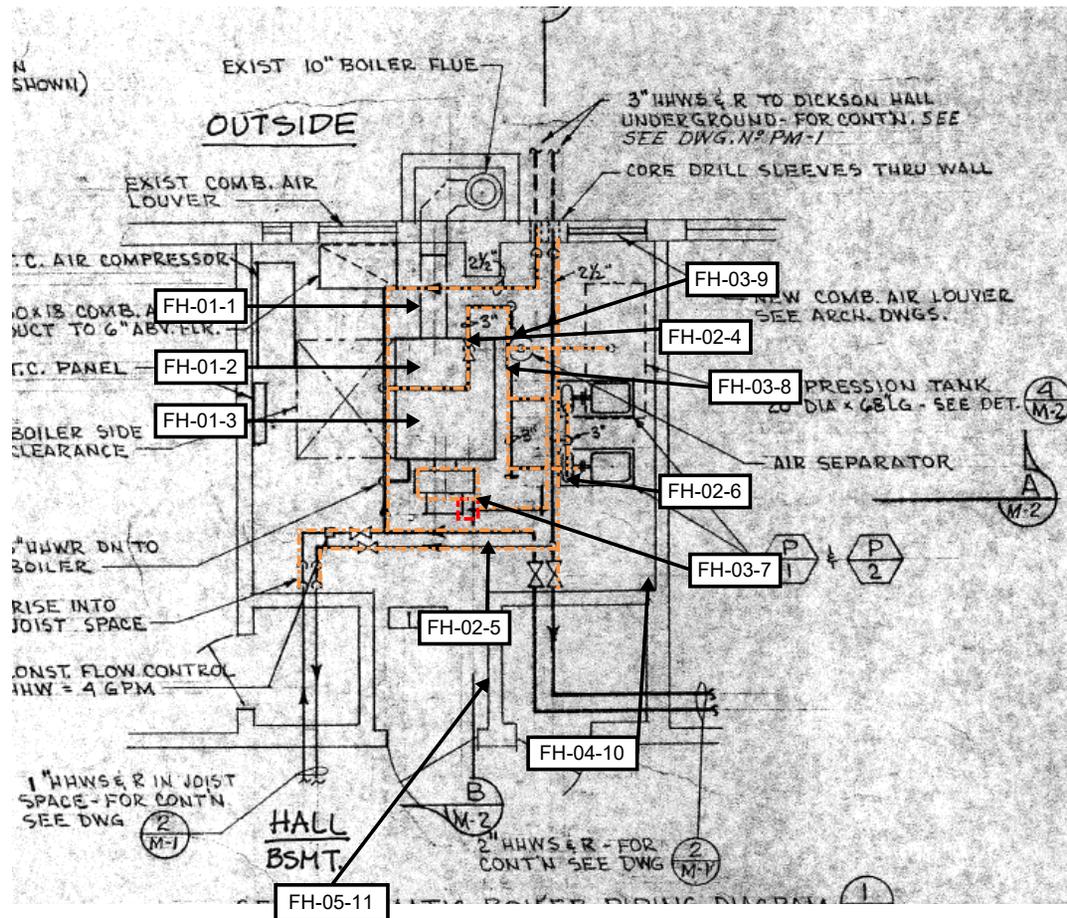


Asbestos pipe



Pipe Plan  
 Fusselman Hall - Boiler Rooms 25  
 Marin Community College  
 Kentfield, California

Mudded Pipe Elbows - 20% Amosite



- Mudded Pipe Elbow - 20% Amosite
- Compound on Fiberglass Wrapped Pipes - 2% CH

**Fusselman Hall - Boiler Rooms 18**  
**Marin Community College**  
**Kentfield, California**

# LABORATORY RESULTS

**MICRO ANALYTICAL LABORATORIES, INC.**  
**BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)**



1048  
 Wendy Plank  
 American Compliance Services  
 554 Morning Glory Drive  
 Benicia, CA 94510

PROJECT:  
**KENTFIELD COLLEGE**  
**FUSSELMAN HALL**  
**ROOM 18**

Micro Log In **215074**  
 Total Samples 11  
 Date Sampled 02/01/2016  
 Date Received 02/01/2016  
 Date Analyzed 02/01/2016

**ASBESTOS INFORMATION**

SAMPLE IDENTIFICATION

QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES

DOMINANT  
OTHER MATERIALS

Client #: <b>FH-01-1</b> Micro #: 215074-01 Analyst: AZ 12" BOILER PIPE 7' 2" INSULATION	<b>MESH: NONE DETECTED</b> <b>INSULATION: NONE DETECTED</b>	40 % CELLULOSE 10 % FIBROUS GLASS  NFM: SYNTHETIC MATERIAL
Client #: <b>FH-01-2</b> Micro #: 215074-02 Analyst: AZ 12" BOILER PIPE 7' 2" INSULATION	<b>MESH: NONE DETECTED</b> <b>INSULATION: NONE DETECTED</b>	40 % CELLULOSE 10 % FIBROUS GLASS  NFM: SYNTHETIC MATERIAL
Client #: <b>FH-01-3</b> Micro #: 215074-03 Analyst: AZ 12" BOILER PIPE 7' 2" INSULATION	<b>MESH: NONE DETECTED</b> <b>INSULATION: NONE DETECTED</b>	40 % CELLULOSE 10 % FIBROUS GLASS  NFM: SYNTHETIC MATERIAL
Client #: <b>FH-02-4</b> Micro #: 215074-04 Analyst: AZ PIPE END CAP INSULATION	<b>NONE DETECTED</b>	70 % FIBROUS GLASS  NFM: SYNTHETIC MATERIAL
Client #: <b>FH-02-5</b> Micro #: 215074-05 Analyst: AZ PIPE END CAP INSULATION	<b>NONE DETECTED</b>	70 % FIBROUS GLASS  NFM: SYNTHETIC MATERIAL

Technical Supervisor: 

Gamini Ranatunga, Ph.D.

2/1/2016

Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Tremolite-asbestos or actinolite-asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantification limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

**MICRO ANALYTICAL LABORATORIES, INC.**  
**BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)**



1048  
 Wendy Plank  
 American Compliance Services  
 554 Morning Glory Drive  
 Benicia, CA 94510

PROJECT:  
**KENTFIELD COLLEGE**  
**FUSSELMAN HALL**  
**ROOM 18**

Micro Log In **215074**  
 Total Samples 11  
 Date Sampled 02/01/2016  
 Date Received 02/01/2016  
 Date Analyzed 02/01/2016

**ASBESTOS INFORMATION**

SAMPLE IDENTIFICATION

QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES

DOMINANT  
OTHER MATERIALS

Client #: <b>FH-02-6</b> Micro #: 215074-06 Analyst: AZ <b>PIPE END CAP INSULATION</b>	<b>NONE DETECTED</b>	10 % FIBROUS GLASS NFM: SYNTHETIC MATERIAL
Client #: <b>FH-03-7</b> Micro #: 215074-07 Analyst: AZ BK <b>COMPOUND ON FIBERGLASS WRAPPED PIPE</b>	<b>COMPOUND: 2% CHRYSOTILE ASBESTOS</b> <b>FIBERGLASS LAYER: NONE DETECTED</b>	70 % FIBROUS GLASS NFM: SYNTHETIC MATERIAL
Client #: <b>FH-03-8</b> Micro #: 215074-08 Analyst: AZ <b>COMPOUND ON FIBERGLASS WRAPPED PIPE</b>	<b>COMPOUND: 2% CHRYSOTILE ASBESTOS</b> <b>FIBERGLASS LAYER: NONE DETECTED</b>	70 % FIBROUS GLASS NFM: SYNTHETIC MATERIAL
Client #: <b>FH-03-9</b> Micro #: 215074-09 Analyst: AZ <b>COMPOUND ON FIBERGLASS WRAPPED PIPE</b>	<b>COMPOUND: 2% CHRYSOTILE ASBESTOS</b> <b>FIBERGLASS LAYER: NONE DETECTED</b>	90 % FIBROUS GLASS NFM: SYNTHETIC MATERIAL
Client #: <b>FH-04-10</b> Micro #: 215074-10 Analyst: AZ <b>PLASTER</b>	<b>PLASTER: NONE DETECTED</b> <b>SKIM COAT: NONE DETECTED</b>	NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: 

Gamini Ranatunga, Ph.D.

2/1/2016

Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Tremolite-asbestos or actinolite-asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

**MICRO ANALYTICAL LABORATORIES, INC.**  
**BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)**



1048  
 Wendy Plank  
 American Compliance Services  
 554 Morning Glory Drive  
 Benicia, CA 94510

PROJECT:  
**KENTFIELD COLLEGE**  
**FUSSELMAN HALL**  
**ROOM 18**

Micro Log In **215074**  
 Total Samples 11  
 Date Sampled 02/01/2016  
 Date Received 02/01/2016  
 Date Analyzed 02/01/2016

**ASBESTOS INFORMATION**

SAMPLE IDENTIFICATION

QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES

DOMINANT  
OTHER MATERIALS

Client #: <b>FH-05-11</b> Micro #: 215074-11      Analyst: AZ <b>BASE COVE MASTIC ORANGE</b>	<b>BASE COVE: NONE DETECTED</b> <b>MASTIC (BROWN): NONE DETECTED</b> <b>LEVELING COMPOUND: 8% CHRYSOTILE ASBESTOS</b>	1 % CELLULOSE  NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
--	---	---

Technical Supervisor:

Gamini Ranatunga, Ph.D.

2/1/2016

Date Reported

NVLAP Lab Code 101872-0, CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

Client ID #

1048

Chain of Custody 4/20/2004

# MICRO ANALYTICAL LABORATORIES, INC.

5900 Hollis St., Suite M, Emeryville, CA 94608

(510) 653-0824 - (510) 653-1361 - FAX

Log in #

215074

Wendy Plank

American Compliance Services

554 Morning Glory Drive

Benicia, CA 94510

Tel. (707) 745-1137

Fax (707) 745-4462

E-mail wendyplank@sbcglobal.net

### Project

Kentfield College  
Fusselman Hall

Room 18

Job No.

### Asbestos

(TEM) AHERA Yamate II NIOSH 7402 OTHER

Asbestos PLM PCM

Lead Only Total Lead STLC TCLP

Metals (Specify) Total Metals STLC TCLP

Mold, Non-Viable Tape Lift Air-O-Cell Other

Other (Specify)

Number of Samples Turn-Around Time

Matrix Type Bulk Dust Paint Soil Wipe Air Water Other

5/d

Micro ID #

(For Lab Use Only)

Client Sample ID#

Description

Date Sampled

Time Sampled Start / Stop / Total Minutes

Average LPM

Total Liters

Filter Pore Size

Micro ID #	Client Sample ID#	Description	Date Sampled	Time Sampled	Average LPM	Total Liters	Filter Pore Size
1	FH-01-1	12" Boiler Pipe 2" insulation					
2	2						
3	3						
4	FH-02-4	Pipe End cap insulation					
5	5						
6	6						
7	FH-03-7	Compound on Fiberglass wrapped pipe					
8	8						
9	9						
10	FH-04-10	Plaster					
11	FH-05-11	Bascovo/Mastic					

Instructions / Comments:

Fax

E-mail To:

Sample Return: YES

NO

If "YES" is checked, samples will be returned to the client or archived at Micro Analytical if required.

If "NO" is checked, solid samples may be disposed of within three months (one week for liquid samples, lab suspensions, and digestates).

Sampler's Signature / Name

Note to Lab: If any samples are not acceptable, record reasons for rejection.

Relinquished By

Date / Time

Drop Box / Courier

Received By

Date / Time

Relinquished By

Date / Time

Received By

Date / Time

2/1/16 17:51

**MICRO ANALYTICAL LABORATORIES, INC.**  
**BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)**



1048  
 Wendy Plank  
 American Compliance Services  
 554 Morning Glory Drive  
 Benicia, CA 94510

PROJECT:  
**COLLEGE OF MARIN**  
**KENTFIELD CAMPUS**  
**FUSSELMAN HALL**  
**MARIN, CA**  
**ROOM 25**

Micro Log In **215076**  
 Total Samples 15  
 Date Sampled 01/28/2016  
 Date Received 02/01/2016  
 Date Analyzed 02/01/2016

**ASBESTOS INFORMATION**

**SAMPLE IDENTIFICATION**

**QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES**

**DOMINANT OTHER MATERIALS**

Client #: <b>FH-6-12</b> Micro #: 215076-01 Analyst: BK TAPE / GLUE ON DUCTS	TAPE: NONE DETECTED GLUE: NONE DETECTED	70 % CELLULOSE  NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-6-13</b> Micro #: 215076-02 Analyst: BK TAPE / GLUE ON DUCTS	TAPE: NONE DETECTED GLUE: NONE DETECTED	70 % CELLULOSE  NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-6-14</b> Micro #: 215076-03 Analyst: BK TAPE / GLUE ON DUCTS	TAPE: NONE DETECTED GLUE: NONE DETECTED	70 % CELLULOSE  NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-7-15</b> Micro #: 215076-04 Analyst: BK DRYWALL / TAPE / COMPOUND	COMPOSITE DW & TC: <1% CHRYSOTILE ASBESTOS DRYWALL: NONE DETECTED TAPING COMPOUND: < 1% CHRYSOTILE ASBESTOS TAPE: NONE DETECTED	10 % CELLULOSE  NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: <b>FH-7-16</b> Micro #: 215076-05 Analyst: BK DRYWALL / TAPE / COMPOUND	COMPOSITE DW & TC: <1% CHRYSOTILE ASBESTOS DRYWALL: NONE DETECTED TAPING COMPOUND: 4% CHRYSOTILE ASBESTOS TAPE: NONE DETECTED	10 % CELLULOSE  NFM: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.

Technical Supervisor: 

Gamini Ranatunga, Ph.D.

2/1/2016

Date Reported

NVLAP Lab Code 101872-0, CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Tremolite-asbestos or actinolite-asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantification limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

**MICRO ANALYTICAL LABORATORIES, INC.**  
**BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)**



1048  
 Wendy Plank  
 American Compliance Services  
 554 Morning Glory Drive  
 Benicia, CA 94510

PROJECT:  
**COLLEGE OF MARIN  
 KENTFIELD CAMPUS  
 FUSSELMAN HALL  
 MARIN, CA  
 ROOM 25**

Micro Log In **215076**  
 Total Samples 15  
 Date Sampled 01/28/2016  
 Date Received 02/01/2016  
 Date Analyzed 02/01/2016

**ASBESTOS INFORMATION**

SAMPLE IDENTIFICATION

QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES

DOMINANT  
OTHER MATERIALS

Client #: <b>FH-7-17</b>	Micro #: 215076-06 Analyst: BK BK DRYWALL / TAPE / COMPOUND	<b>TAPING COMPOUND: 4% CHRYSOTILE ASBESTOS</b> <b>TAPE: NONE DETECTED</b>  (NO DRYWALL IN THE SAMPLE.)	20 % CELLULOSE  NFM: CARBONATE, MISC. PARTICLES
Client #: <b>FH-9-19</b>	Micro #: 215076-07 Analyst: BK PAPER / FOIL BANDS ON FIBERGLASS PIPES JACKET	<b>PAPER: NONE DETECTED</b> <b>FOIL: NONE DETECTED</b> <b>GLUE: NONE DETECTED</b> <b>FIBERGLASS LAYER: NONE DETECTED</b>	10 % CELLULOSE 70 % FIBROUS GLASS  NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-9-20</b>	Micro #: 215076-08 Analyst: BK BK FIBERGLASS JACKET	<b>PAPER: NONE DETECTED</b> <b>FOIL: NONE DETECTED</b> <b>GLUE: NONE DETECTED</b> <b>FIBERGLASS LAYER: NONE DETECTED</b>	10 % CELLULOSE 70 % FIBROUS GLASS  NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-10-21</b>	Micro #: 215076-09 Analyst: BK FIBERGLASS JACKET	<b>PAPER: NONE DETECTED</b> <b>FOIL: NONE DETECTED</b> <b>GLUE: NONE DETECTED</b> <b>FIBERGLASS LAYER: NONE DETECTED</b>	10 % CELLULOSE 70 % FIBROUS GLASS  NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-10-22</b>	Micro #: 215076-10 Analyst: BK FIBERGLASS JACKET	<b>PAPER: NONE DETECTED</b> <b>FOIL: NONE DETECTED</b> <b>GLUE: NONE DETECTED</b> <b>FIBERGLASS LAYER: NONE DETECTED</b>	10 % CELLULOSE 70 % FIBROUS GLASS  NFM: BINDER, OTHER, MISCELLANEOUS.

Technical Supervisor: 

Gamini Ranatunga, Ph.D.

2/1/2016

Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Tremolite-asbestos or actinolite-asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

# MICRO ANALYTICAL LABORATORIES, INC.

## BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)



1048  
Wendy Plank  
American Compliance Services  
554 Morning Glory Drive  
Benicia, CA 94510

PROJECT:  
**COLLEGE OF MARIN  
KENTFIELD CAMPUS  
FUSSELMAN HALL  
MARIN, CA  
ROOM 25**

Micro Log In **215076**  
Total Samples 15  
Date Sampled 01/28/2016  
Date Received 02/01/2016  
Date Analyzed 02/01/2016

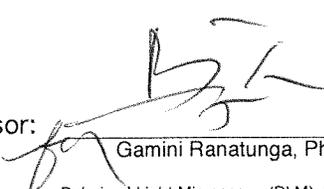
### ASBESTOS INFORMATION

#### SAMPLE IDENTIFICATION

#### QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES

#### DOMINANT OTHER MATERIALS

Client #: <b>FH-11-23</b> Micro #: 215076-11 Analyst: BK <b>END CAP COMPOUND ON FIBERGLASS WRAPPED PIPES</b>	<b>COMPOUND: NONE DETECTED</b>	20 % FIBROUS GLASS NFM: CARBONATE, MISC. PARTICLES
Client #: <b>FH-11-24</b> Micro #: 215076-12 Analyst: BK <b>END CAP COMPOUND ON FIBERGLASS WRAPPED PIPES</b>	<b>COMPOUND: NONE DETECTED FIBERGLASS LAYER: NONE DETECTED</b>	80 % FIBROUS GLASS NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-11-25</b> Micro #: 215076-13 Analyst: BK <b>END CAP COMPOUND ON FIBERGLASS WRAPPED PIPES</b>	<b>COMPOUND: NONE DETECTED FIBERGLASS LAYER: NONE DETECTED</b>	80 % FIBROUS GLASS NFM: BINDER, OTHER, MISCELLANEOUS.
Client #: <b>FH-12-26</b> Micro #: 215076-14 Analyst: BK <b>PLASTER</b>	<b>NONE DETECTED</b>	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: <b>FH-12-27</b> Micro #: 215076-15 Analyst: BK <b>PLASTER</b>	<b>NONE DETECTED</b>	NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: 

Gamini Ranatunga, Ph.D.

2/1/2016

Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Tremolite-asbestos or actinolite-asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in all layers of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

Client ID #

1048

Chain of Custody 4/20/2004

# MICRO ANALYTICAL LABORATORIES, INC.

Name / Client / Address:

5900 Hollis St., Suite M, Emeryville, CA 94608  
(510) 653-0824 - (510) 653-1361 - FAX

Log in #

215076

Wendy Plank

American Compliance Services.....

554 Morning Glory Drive.....

Benicia, CA 94510.....

Tel. (707) 745-1137

Fax (707) 745-4462

E-mail wendyplank@sbcglobal.net

### Project

College of Marin  
Fentfield Campus  
Fusselman Hall  
Rm 25

Job No. \_\_\_\_\_

### Asbestos (TEM)

AHERA Yamate II NIOSH 7402 OTHER

### Asbestos

PLM PCM

### Lead Only

Total Lead STLC TCLP

### Metals (Specify)

Total Metals STLC TCLP

### Mold, Non-Viable

Tape Lift Air-O-Cell Other

### Other (Specify)

### Number of Samples

### Turn-Around Time

5fd

Matrix Type Bulk Dust Paint Soil Wipe Air Water Other

Micro ID #

(For Lab Use Only)

Client Sample ID#

Description

Date Sampled

Time Sampled Start / Stop / Total Minutes

Average LPM

Total Liters

Filter Pore Size

Micro ID #	Client Sample ID#	Description	Date Sampled	Time Sampled Start / Stop / Total Minutes	Average LPM	Total Liters	Filter Pore Size
1	FH-6-12	tape / <sup>blue</sup> compound on ducts					
2	13						
3	14						
4	FH-7-15	dry wall, tape, compound					
5	16						
6	17						
X	<del>FH-8-18</del>	<del>mud elbow Assum</del>					
7	FH-9-19	Paper / Foic bands on fiberglass pipes jacket					
8	<del>FH-18-20</del>	Fiberglass jacket					
9	FH-10-21						
10	FH-10-22						

Instructions / Comments:

Fax

E-mail To:

Sample Return: YES NO If "YES" is checked, samples will be returned to the client or archived at Micro Analytical if required.

If "NO" is checked, solid samples may be disposed of within three months (one week for liquid samples, lab suspensions, and digestates).

Sampler's Signature / Name

Wendy Plank / Wendy Plank

Note to Lab: If any samples are not acceptable, record reasons for rejection.

Drop Box / Courier

2/11/06 12:51

Relinquished By

Date / Time

Received By

Date / Time

Relinquished By

Date / Time

Received By

Date / Time

Client ID #

1048

Chain of Custody 4/20/2004

# MICRO ANALYTICAL LABORATORIES, INC.

5900 Hollis St., Suite M, Emeryville, CA 94608

(510) 653-0824 - (510) 653-1361 - FAX

Log in #

215076

Name / Client / Address:

Wendy Plank

American Compliance Services.....

554 Morning Glory Drive.....

Benicia, CA 94510.....

Tel. (707) 745-1137

Fax (707) 745-4462

E-mail wendyplank@sbcglobal.net

**Project**  
College of Marin  
Rentfield Campus  
Fusselman Hall  
Room 25

Job No. \_\_\_\_\_

**Asbestos**

(TEM) AHERA Yamate II NIOSH 7402 OTHER

**Asbestos**

PLM PCM

**Lead Only**

Total Lead STLC TCLP

**Metals**

(Specify)

Total Metals STLC TCLP

**Mold, Non-Viable**

Tape Lift Air-O-Cell Other

**Other**

(Specify)

**Number of Samples**

**Turn-Around Time**

5td

Matrix Type Bulk Dust Paint Soil Wipe Air Water Other

Micro ID #

(For Lab Use Only)

Client Sample ID#

Description

1-28-16

Date Sampled

Time Sampled  
Start / Stop /  
Total Minutes

Average  
LPM

Total  
Liters

Filter  
Pore Size

Micro ID # (For Lab Use Only)	Client Sample ID#	Description	Date Sampled	Time Sampled Start / Stop / Total Minutes	Average LPM	Total Liters	Filter Pore Size
11	FH-11-23	End cap compound on fiberglass wrapped pipes		:	:		
12	24			:	:		
13	25			:	:		
14	FH-12-26	Plaster		:	:		
15	27			:	:		
				:	:		
				:	:		
				:	:		
				:	:		
				:	:		

Instructions / Comments:

Fax

E-mail To:

Sample Return: YES NO If "YES" is checked, samples will be returned to the client or archived at Micro Analytical if required.

If "NO" is checked, solid samples may be disposed of within three months (one week for liquid samples, lab suspensions, and digestates).

Sampler's Signature / Name

Note to Lab: If any samples are not acceptable, record reasons for rejection.

Drop Box / Courier

Relinquished By

Date / Time

\_\_\_\_\_

Received By

Date / Time

Relinquished By

Date / Time

\_\_\_\_\_

Received By

Date / Time

*[Signature]* 2/11/16 13:51

**MICRO ANALYTICAL LABORATORIES, INC.**  
**BULK ASBESTOS ANALYSIS - PLM POINT COUNT**



1048  
 Wendy Plank  
 American Compliance Services  
 554 Morning Glory Drive  
 Benicia, CA 94510

PROJECT:  
**COLLEGE OF MARIN  
 KENTFIELD CAMPUS  
 FUSSELMAN HALL  
 MARIN, CA  
 ROOM 25**

Micro Log In **215132**  
 Total Samples 2  
 Date Sampled 01/28/2016  
 Date Received 02/02/2016  
 Date Analyzed 02/02/2016

SAMPLE INFORMATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #: <b>FH-7-15</b> Micro #: 215132-01 Analyst: AZ DRYWALL / TAPE / COMPOUND (REANALYSIS OF PLM 215076-04) Asb. / Total Pts. Matrix Removed Sensitivity 0 / 400 0% 0.250%	<b>&lt;0.25% CHRYSOTILE ASBESTOS</b>  <b>CHRYSOTILE ASBESTOS WAS OBSERVED DURING SCANNING            BUT NO POINTS WERE COUNTABLE (ASBESTOS IS BELOW            THE DETECTION LIMIT OF THE METHOD).</b>	1 % CELLULOSE  Matrix Type: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.
Client #: <b>FH-7-16</b> Micro #: 215132-02 Analyst: DRYWALL / TAPE / COMPOUND (REANALYSIS OF PLM 215076-05) Asb. / Total Pts. Matrix Removed Sensitivity 1 / 400 0% 0.250%	<b>0.25% CHRYSOTILE ASBESTOS</b>	1 % CELLULOSE  Matrix Type: 'GYPSUM' (CALCIUM SULFATE), CARBONATE.

  
 Technical Supervisor: \_\_\_\_\_ Date Reported: 2/2/2016  
 Gamini Ranatunga, Ph.D.

Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101, Rev. 1/4/2013 for building materials (based on EPA-600/R93-116 (1993)), and California ARB 435 (1991) for applicable soil, rock, or aggregate samples. NOTES: Weight % cannot be determined by PLM estimation or point counts. Asbestos fibers with diameter below ~1 µm may not be detected by PLM. The absence of asbestos in dust or debris (including wipe or microvacuum), and in some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). Only dominant non-asbestos materials are indicated. This report must not be interpreted as a conclusive identification of non-asbestos (fibrous or not). Quantities of non-asbestos fibers are estimated, not point counted. Preparation (all samples): grinding, milling; teasing bundles apart; drying, if needed, by hotplate. Acid dissolution, ashing, or other matrix reduction techniques may be applied to some samples; residue asbestos % is corrected for amount of matrix removed. Various sample interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Notes are made if point counting is used; otherwise, asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (<<1%) may not be reliable or reproducible by PLM. Lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos by weight; however, reliable determination of asbestos weight percent at this level cannot be done by PLM, and TEM is recommended. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. Composite asbestos percentages on multilayered samples are applicable only to layered wall systems (wallboard, joint compound, and related materials); compositing is based on clients' descriptions of a material as "joint compound". Clients are solely responsible for identification and description of bulk materials listed on field forms. Laboratory sample descriptions may differ from descriptions given by the client. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Samples that were reanalyzed are denoted by two sets of analyst initials. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. ND = NO ASBESTOS DETECTED.

Client ID # 1048  
 Chain of Custody 4/20/2004  
 Name / Client / Address:

**MICRO ANALYTICAL LABORATORIES, INC.**

5900 Hollis St., Suite M, Emeryville, CA 94608  
 (510) 853-0824 - (510) 653-1361 - FAX

Log in # 215076

215132

Wendy Plank  
 American Compliance Services  
 554 Morning Glory Drive  
 Benicia, CA 94510  
 Tel. (707) 745-1137  
 Fax (707) 745-4462  
 E-mail wendyplank@sbcglobal.net

**Project**  
 College of Marin  
 Kentfield Campus  
 Fusselman Hall  
 Rm 25  
 Job No. \_\_\_\_\_

**Asbestos (TEM)** AHERA Yamate II NIOSH 7402 OTHER

**Asbestos** PLM PCM

**Lead Only** Total Lead STLC TCLP

**Metals (Specify)** Total Metals STLC TCLP

**Mold, Non-Viable** Tape Lift Air-O-Cell Other

**Other (Specify)**

**Number of Samples** **Turn-Around Time**

Matrix Type Bulk Dust Paint Soil Wipe Air Water Other

Micro ID # (For Lab Use Only) Client Sample ID# Description Date Sampled Time Sampled Start / Stop / Total Minutes Average LPM Total Liters Filter Pore Size

Micro ID #	Client Sample ID#	Description	Date Sampled	Time Sampled	Average LPM	Total Liters	Filter Pore Size
1	FH-6-12	tape / <sup>blue</sup> compound on ducts					
2	13						
3	14						
① 4	FH-7-15	dry wall, tape, compound					
② 5	16						
6	17						
X	FH-8-18	mud elbow assembly					
7	FH-9-19	Paper / Foil bands on fiberglass pipes, jacket					
8	FH-10-20	Fiberglass jacket					
9	FH-10-21						
10	FH-10-22						

Instructions / Comments:  Fax  E-mail To:

**Sample Return:** YES NO If "YES" is checked, samples will be returned to the client or archived at Micro Analytical if required. If "NO" is checked, solid samples may be disposed of within three months (one week for liquid samples, lab suspensions, and digestates).

Sampler's Signature / Name: Wendy Plank / Wendy Plank Note to Lab: If any samples are not acceptable, record reasons for rejection.

Relinquished By: Wendy Plank Date / Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date / Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date / Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date / Time: \_\_\_\_\_

## MICRO ANALYTICAL LABORATORIES, INC.



## LEAD IN PAINT - FLAME AAS (SW846)

1048

Wendy Plank

American Compliance Services

554 Morning Glory Drive

Benicia, CA 94510

PROJECT:

KENTFIELD CAMPUS

FUSSELMAN HALL

MARIN, CA

ROOM 25

Micro Log In 215075

Total Samples 1

Date Sampled 01/28/2016

Date Received 02/01/2016

Date Analyzed 02/01/2016

## Lead Concentration

Sample ID	Weight Percent	mg/kg (ppm)	RDL
Client: FH-P1 Lab: 215075-01 YELLOW PAINT ON CONCRETE	0.0089 %	89	0.00521 % 52 mg/kg

Technical Supervisor: \_\_\_\_\_

Tess Tagorda, Chemistry Supervisor

2/2/2016

Date Reported

Analyst: \_\_\_\_\_

SM

AIHA-LAP LLC ELLAP Accredited Laboratory, ID #101768. SOP M23-Paint. Samples are analyzed by Flame Atomic Absorption Spectrometry (AAS). U.S. EPA SW-846 Method 7420 is used for the instrumental analysis. Nitric acid and hydrogen peroxide digestion procedures are based on ASTM E-1645. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these analytical results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. Note: due to software limitations, the number of reported significant figures does not necessarily reflect the uncertainty of the analysis. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. Unit explanations: mg = milligrams; kg = kilograms; ppm = parts per million. N/A = Not Applicable. RDL = Report Detection Limit.

Client ID #

1048

Chain of Custody 4/20/2004

# MICRO ANALYTICAL LABORATORIES, INC.

Name / Client / Address:

5900 Hollis St., Suite M, Emeryville, CA 94608

(510) 653-0824 - (510) 653-1361 - FAX

Log in #

215075

Wendy Plank

American Compliance Services.....

554 Morning Glory Drive.....

Benicia, CA 94510.....

Tel. (707) 745-1137

Fax (707) 745-4462

E-mail wendyplank@sbcglobal.net

**Project**  
Kentfield Campus  
Fusselman Hall  
Marin, CA  
Room 25

Job No. \_\_\_\_\_

**Asbestos**

(TEM) AHERA Yamate II NIOSH 7402 OTHER

**Asbestos**

PLM PCM

**Lead Only**

Total Lead STLC TCLP

**Metals**

(Specify)

Total Metals STLC TCLP

**Mold, Non-Viable**

Tape Lift Air-O-Cell Other

**Other**

(Specify)

Number of Samples

Turn-Around Time

5/d

Matrix Type Bulk Dust Paint Soil Wipe Air Water Other

Micro ID #

(For Lab Use Only)

Client Sample ID#

Description

1-28-16  
Date Sampled

Time Sampled  
Start / Stop /  
Total Minutes

Average  
LPM

Total  
Liters

Filter  
Pore Size

Micro ID #	Client Sample ID#	Description	Date Sampled	Time Sampled	Average LPM	Total Liters	Filter Pore Size
1	FH-P1	Yellow paint on concrete					

Instructions / Comments:  Fax  E-mail To:

Sample Return YES NO If "YES" is checked, samples will be returned to the client or archived at Micro Analytical if required.

If "NO" is checked, solid samples may be disposed of within three months (one week for liquid samples, lab suspensions, and digestates).

Sampler's Signature / Name

Note to Lab: If any samples are not acceptable, record reasons for rejection.

Wendy Plank

Drop Box / Courier

2/11/16 13:51

Relinquished By

Date / Time

Received By

Date / Time

Relinquished By

Date / Time

Received By

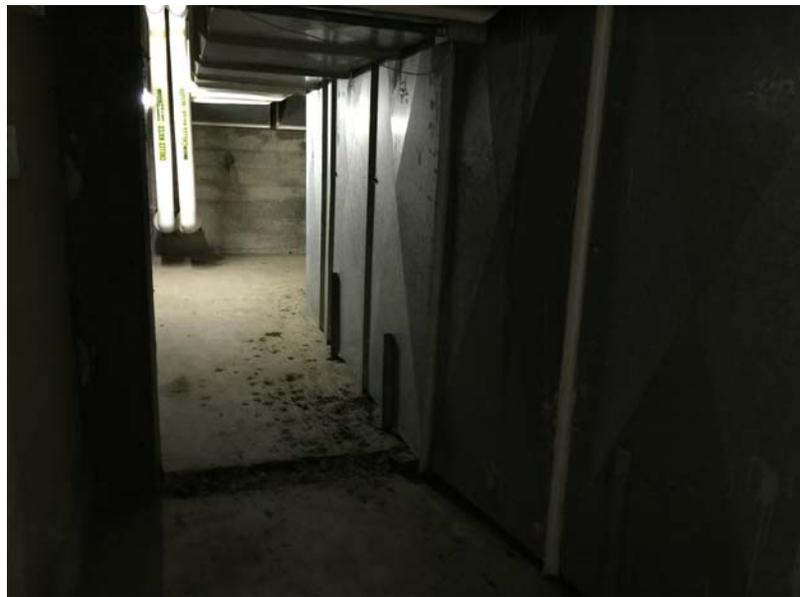
Date / Time

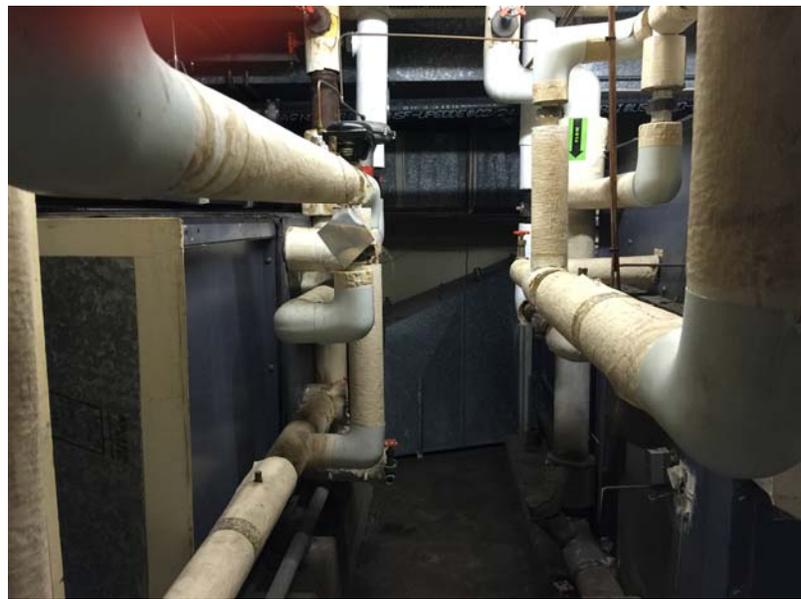
# PHOTOGRAPHS













# **CONSULTANTS CERTIFICATIONS**

# M&C Environmental Training

**Asbestos Contractor/Supervisor**  
Refresher Training Course

**Karina Palacios**

has successfully completed the Asbestos Contractor/Supervisor Refresher course approved by the California Division of Occupational Safety and Health for purposes of certification required by Title 8, Article 2.7 Chapter 3.2, Section 341.16 and the accreditation required under the Toxic Substances Control Act, Title II. Conducted by M&C Environmental Training, Inc., 1619 Beverly Place, Berkeley, California 94707. Tel. #(510) 525 - 1388

Course Approval Number: CA-003-04

Location: **Oakland, California**

Expiration: **January 15, 2017**

Dates: **January 15, 2016**

Director of Training: **John McGinnis**



Certificate Number **39321 SR**



This is to certify that

**Karina A. Palacios**

has successfully completed an EPA approved A.H.E.R.A. course for

**Asbestos Building Inspector Refresher**

as required under TSCA Title II

1/20/2016

Class Date(s)

A handwritten signature in blue ink, appearing to read "David Esparza", is written over a horizontal line.

David Esparza - President

141096

Certificate Number

CA-001-06

Cal/OSHA Number

1/20/2017

Expiration Date

2040 Peabody Road Vacaville, CA 95687 Phone (800) 359-4467 Fax (707) 446-9072

# M&C Environmental Training

## Asbestos Contractor/Supervisor Refresher Training Course

**Sofia Corona**

has successfully completed the Asbestos Contractor/Supervisor Refresher course approved by the California Division of Occupational Safety and Health for purposes of certification required by Title 8, Article 2.7 Chapter 3.2, Section 341.16 and the accreditation required under the Toxic Substances Control Act, Title II. Conducted by M&C Environmental Training, Inc., 1619 Beverly Place, Berkeley, California 94707. Tel. #(510) 525 - 1388

Course Approval Number: CA-003-04

Location: **Oakland, California**

Expiration: **January 15, 2017**

Dates: **January 15, 2016**

Director of Training: **John McGinnis**



Certificate Number **39320 SR**



This is to certify that

**Sofia Corona**

has successfully completed an EPA approved A.H.E.R.A. course for

**Asbestos Building Inspector Refresher**

as required under TSCA Title II

1/20/2016

Class Date(s)

A handwritten signature in blue ink, appearing to read "David Esparza", is written over a horizontal line.

David Esparza - President

141097

Certificate Number

CA-001-06

Cal/OSHA Number

1/20/2017

Expiration Date

2040 Peabody Road Vacaville, CA 95687 Phone (800) 359-4467 Fax (707) 446-9072

State of California Department of Public Health

Lead-Related  
Construction  
Certificate

Certificate  
Type

Expiration  
Date



Inspector/Assessor	05/18/2016
Supervisor	05/18/2016
Project Designer	05/18/2016
Project Monitor	05/18/2016

Wendy J. Plank

ID #: 777

State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**

**Wendy Plank Davis**

Name



Certification No. **01-2904**

Expires on **04/04/17**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

