

Limited Pre-Renovation Hazardous Materials Survey Report

Los Medanos College
L-1177 Industrial Trades Labs Renovation
2700 E. Leland Road
Pittsburg, California

March 22, 2021

Terracon Project No. R1217097

Prepared for:

Contra Costa Community College District
500 Court Street
Martinez, CA 94553

Prepared by:

Terracon Consultants, Inc.
Emeryville, CA

Steffen Steiner, Office Manager (CAC #92-0850, DPH Lead I/A #LRC-5586)

Denise Wallen, Engineering Assistant (CSST #15-5444)

Offices Nationwide
Employee-Owned

Established in 1965
terracon.com

Terracon

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

TABLE OF CONTENTS

Executive Summary.....	i
1.0 Scope of Work.....	1
1.1 Reliance.....	1
2.0 Methods And Sampling Strategies – Asbestos, Lead & Other Hazardous Materials.....	2
2.1 Asbestos-Containing Materials (ACMs).....	2
2.2 Lead-Containing Paint	3
2.3 Visual Assessment – Other Hazardous Building Materials.....	3
3.0 Asbestos Results.....	3
4.0 Lead Results	5
5.0 Other Hazardous Materials	5
6.0 Regulatory Requirements.....	6
6.1 Asbestos	6
6.2 Lead.....	7
6.3 PCBs.....	8
6.4 Mercury (Universal Waste)	9
7.0 Limitations.....	10

Appendix A	Laboratory Results & Chain of Custody – Asbestos
Appendix B	Laboratory Results & Chain of Custody – Lead
Appendix C	Sample Location Drawing
Appendix D	Terracon Inspector Certifications

EXECUTIVE SUMMARY

The following is a report of the limited pre-renovation building survey conducted by Matt Chin, Certified Asbestos Consultant (CAC) and Department of Public Health (DPH) Lead Inspector/Assessor, with Terracon Consultants, Inc. (Terracon). The survey was performed on March 5, 2021 at Los Medanos College located at 2700 E. Leland Road in Pittsburg, California, for the L-1177 Industrial Trades Labs Renovation project.

The scope of the survey included the interior of the industrial trades labs, including the restroom and hallway. The survey was limited to accessible areas and materials that are within the path of construction of pending renovation activities. A total of ten (10) homogeneous suspect asbestos-containing materials (ACMs) were identified and sampled during the survey. Of the materials sampled, one (1) was reported to contain asbestos in concentrations exceeding the laboratory limit of detection and one (1) material was not sampled and assumed to contain asbestos. Table I in Section 3.0 of this report provides a summary of the materials confirmed and assumed to contain asbestos. Table II in Section 3.0 lists the suspect ACMs sampled but found to be non-detect for asbestos.

Three (3) paint samples were collected from surfaces suspected to be lead containing. All three (3) of the samples were found to contain lead above the laboratory detection limit. A summary table of the lead sampling results is provided in Section 4.0.

The building was also visually inspected for the presence of PCB-containing fluorescent light ballasts, mercury containing fluorescent light tubes and thermostats. A summary table of these hazardous materials is provided in Section 5.0.

LIMITED PRE-RENOVATION HAZARDOUS MATERIALS SURVEY

Los Medanos College

L-1177 Industrial Trades Labs Renovation

2700 E. Leland Road, Pittsburg, California

Terracon Project No. R1217097

March 22, 2021

1.0 SCOPE OF WORK

The scope of the pre-renovation survey was as follows:

- n Conduct a limited pre-renovation survey of the interior of the building to identify the presence of asbestos, lead-containing paint/materials, PCB-containing equipment, and mercury containing equipment/devices.
- n Collect a representative number of samples of suspect ACMs following an Asbestos Hazard Emergency Response Act (AHERA) protocol for sample collection for a demolition survey. Asbestos bulk samples were analyzed using polarized light microscopy (PLM) in accordance with EPA's July 1993 method for the determination of asbestos in bulk building materials - EPA 600/R-93/116.
- n Collect bulk samples of coatings suspected to be lead-containing. Paint samples were analyzed at an accredited laboratory by Flame Atomic Absorption (AA) for Total Lead reported in parts per million (ppm).
- n Visually inspect representative fluorescent light fixtures for the presence of PCBs and mercury containing light tubes.
- n Submit written report including analytical results, sampling strategies and regulatory requirements.

1.1 Reliance

This report is for the exclusive use of Contra Costa Community College District (CCCCD) for the project being discussed. Reliance by any other party on this report is prohibited without written authorization of Terracon and CCCCCD. Reliance on this report by CCCCCD and all authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, this report and Terracon's Agreement for Services.

2.0 METHODS AND SAMPLING STRATEGIES – ASBESTOS, LEAD & OTHER HAZARDOUS MATERIALS

2.1 Asbestos-Containing Materials (ACMs)

Accessible building materials were visually inspected using the methods presented in the federal AHERA regulations (40 CFR, Part 763) as a guideline. AHERA was originally only applicable to schools, however State and Federal Occupational Safety and Health Administration (OSHA) have adopted the AHERA sampling methodology for all buildings subject to demolition or renovation.

Bulk samples of suspect ACMs were collected from numerous homogeneous materials, as feasible, based on occupancy of the building. A homogeneous material is defined as a surfacing material, thermal system insulation, or miscellaneous material that is similar in size, color, texture and age of construction. Examples of homogeneous materials include:

- n Pipe insulation produced by the same manufacturer and installed during the same time period
- n Resilient flooring of identical color and pattern
- n Troweled on surfacing materials with similar textures

The trades labs, restroom, and hallway were visually inspected for the presence of suspect materials. As materials were identified, bulk samples were obtained with the aid of a coring device or other hand tool and placed into individual sample containers. Each sample was given a discreet identification number and recorded on field notes as well as chain of custody forms. Refer to Tables I and II below and Appendix A for details on material sample locations and analytical results.

Asbestos bulk samples were transported under chain of custody procedures to EMLab P&K (EMLab) in Phoenix, Arizona. EMLab is accredited by the National Institute of Standards and Technology's National Voluntary Laboratory Accreditation Program (NVLAP). All bulk samples were analyzed using polarized light microscopy (PLM) techniques in accordance with methodology approved by the U.S. Environmental Protection Agency (EPA). As set forth in the Code of Federal Regulations, 40 CFR Part 763, Appendix A to Subpart F, Section 1.2 and 1.7.2.4, the lower limit of reliability detection for asbestos using the PLM method is approximately one percent (1%) by volume. Cal-OSHA defines asbestos containing construction materials (ACCM) as those materials having an asbestos content of greater than one tenth of one percent ($> 0.1\%$).

When None Detected (ND) appears in this report, it should be interpreted as meaning no asbestos was observed in the sample material above the reliable limit of detection for the PLM method.

Note: under EPA assessment criteria, if a single sample of a homogeneous material tests positive for asbestos, then the entire homogeneous material is considered to be asbestos-containing.

2.2 Lead-Containing Paint

Inspection activities began with visual observations of painted surfaces to identify unique combinations of paint on building materials. A unique combination of paint consists of paint that is applied to a building material and has similar color, substrate and component. Assessment was conducted throughout the visually accessible areas of the building.

Paint chip samples were collected using hand tools and were placed into individual sampling containers. Each sample was provided a discreet sample number and was recorded on a chain-of-custody form. Refer to Table III below and Appendix B for details on sample locations and analytical results.

The samples were transported under chain of custody procedures to EMLab, in Irvine, California. EMLab is accredited by the American Industrial Hygiene Association's (AIHA's) Environmental Lead Laboratory Accreditation Program (ELLAP) for the analysis of lead in paint chips, dust wipes, and/or soil. All paint samples were analyzed for lead content using the Flame Atomic Absorption spectroscopy (FLAA) in accordance to EPA Method 7000B. When "<" appears in the lead sample report, it should be interpreted as meaning below analytical detection limit and no lead was detected in the sample.

2.3 Visual Assessment – Other Hazardous Building Materials

The labs, restroom, and hallway were visually surveyed for the presence of mercury containing products such as fluorescent light tubes, switches, high intensity discharge (HID) bulbs, and thermometers. Lighting fixtures were screened for the potential presence of PCB-containing ballasts. All materials were visually assessed and no testing was performed.

3.0 ASBESTOS RESULTS

During the survey, a total of ten (10) homogeneous, suspect ACMs were identified within the interior of the industrial trades lab, restroom, and hallway. One (1) of the sampled materials was identified as containing asbestos through sampling and laboratory analysis. One (1) additional material was not sampled and assumed to contain asbestos. Summary tables of materials confirmed/assumed to contain asbestos and non-ACMs are provided below:

TABLE I
ASBESTOS-CONTAINING MATERIALS

HM # – Material Description	Sample Locations	NESHAP Category	Asbestos Type	Approx. Quantity
HM 4 – 8" Outer Diameter (OD) White Pipe Insulation on Support Pipe	South End of Appliance Lab	RACM	15% CH	35 sf
HM 10 – Transite Panels	Hood at West Side of Appliance Lab	Cat II	Assumed	250 sf

NA = Not Applicable, CH = Chrysotile, lf = linear feet, sf = square feet, RACM = Regulated asbestos containing material (friable), Cat. I = Non-friable (note ACM must be reclassified as a RACM if rendered friable during removal), Cat. II = Category II Non-friable (note ACM must be reclassified as a RACM if rendered friable during removal)

Eight (8) suspect materials were sampled but did not contain asbestos. The non-asbestos containing materials are listed in Table II below:

TABLE II
NON-ASBESTOS CONTAINING MATERIALS

HM 1 – Gray Caulking	HM 2 – Gray Soundproofing
HM 3 – Pipe End Cap Sealant	HM 5 – Concrete
HM 6 – 4" White Wall Tile with Gray Mortar	HM 7 – 4" White Wall Tile with Brown Grout
HM 8 – 2' x 4' Ceiling Tile with Pinhole and Fissures	HM 9 – Fireproofing

Laboratory reports and chain of custody documentation for the asbestos samples are provided in Appendix A.

It should be reemphasized that although reasonable efforts were made to survey accessible suspect materials, additional suspect but un-sampled materials could be located under existing building materials, inside walls, above ceilings, in isolated areas or in other concealed areas. Per current regulatory framework, if suspect materials are encountered during abatement and/or demolition activities that do not appear to have been characterized as ACM or non-ACM, these materials should be assumed to contain asbestos and treated accordingly until proven otherwise by appropriate sampling and laboratory analysis methodologies.

4.0 LEAD RESULTS

Three (3) paint samples were collected from the trades labs area. Of the materials collected, all three (3) of the paint samples were found to contain lead above the laboratory detection limit. A summary of the lead sampling results is provided in Table III below.

**TABLE III
LEAD SAMPLE RESULTS**

Sample Number	Material Description / Sample Location	Results mg/kg (ppm)
Pb-01	Blue Paint on Metal Conduit Box in Appliance Lab	3,200
Pb-02	Orange Paint on Metal HVAC Duct in Appliance Lab	560
Pb-03	Gray Paint on Wood Wall in Hallway	53

mg/kg= Milligram per kilogram, ppm = parts per million

Based on the results of the lead paint sampling, all painted surfaces throughout the project area should be assumed to contain lead.

Laboratory reports and chain of custody documentation for the lead samples are provided in Appendix B.

5.0 OTHER HAZARDOUS MATERIALS

Terracon also visually assessed the labs area for the presence of mercury containing products such as fluorescent light tubes, HID bulbs, mercury switches and thermostats. Mercury-containing tubes, bulbs, and thermostats should be removed from the fixtures or equipment without breakage and packaged for mercury reclamation as a universal waste through an appropriate vendor prior to removal of any fixtures.

Select lighting ballasts were inspected for labeling indicating the absence of PCBs. Ballasts observed were labeled as non-PCB ballast. All ballasts should be inspected prior to disposal to verify the presence/absence of PCBs. Ballasts should be assumed to be PCB-containing unless specified by the manufacturer's label as containing "No PCBs".

A summary of the visually confirmed materials is provided in Table IV below.

TABLE IV
VISUALLY CONFIRMED HAZARDOUS BUILDING MATERIALS

Material	Location	Estimated Quantity
Mercury Containing Materials		
Fluorescent Light Tubes	Throughout Industrial Trades Labs, Hallway and Restroom – 4' tubes	2' Tubes – 110 4' Tubes - 30
Ballasts with Suspect PCB Capacitors		
Fluorescent Light Fixtures	Throughout Industrial Trades Labs, Hallway and Restroom	70

6.0 REGULATORY REQUIREMENTS

6.1 Asbestos

Asbestos-containing building materials at the subject building contain asbestos in concentrations of greater than one percent (1.0%). Impacting materials containing greater than 1.0% asbestos either through repair, maintenance, renovation or demolition activities triggers numerous regulations enforced by such agencies as OSHA (worker protection) and EPA (environmental exposure, transportation and disposal). Cal-OSHA regulates asbestos at concentrations greater than one tenth of one percent (0.1%).

Listed below are the regulations that apply if the materials are removed or managed in-place:

- n Any individual who contracts to provide health and safety services relating to asbestos-containing materials must be certified by Cal-OSHA as either a Certified Asbestos Consultant or a Site Surveillance Technician. The activities they are certified to provide include: conducting asbestos surveys; writing work plans or specifications for abatement; monitoring the work of abatement contractors; collecting air samples; and determining if the work area is safe for re-occupancy by non-asbestos workers. Regulation: Cal-OSHA 8 CCR 1529 (q)(1).
- n Notify employees, tenants and contractors who perform work in the building of the presence, locations and quantities of asbestos in accordance with California Health and Safety Code Section 25915 and Proposition 65, California (8 CCR 1529 (k)) and Federal OSHA (1926.1101) regulations.
- n If more than 100 square feet of materials that contain greater than 0.1% asbestos will be removed, the materials must be removed by a registered asbestos abatement contractor. Regulation: Cal-OSHA 8 CCR 1529 (R).

- n ACMs that are classified by OSHA as thermal system insulation/surfacing materials are present. Removal of these materials is considered a Class I activity according to Cal-OSHA regulations. Work practices and engineering controls for Class I work are specified in Cal-OSHA 8 CCR 1529 (g) (4-6).
- n ACMs that are classified by Cal-OSHA as other/miscellaneous materials are present. Removal of these materials is considered a Class II activity according to Cal-OSHA regulations. Work practices and engineering controls for Class II work are specified in Cal-OSHA 8 CCR 1529 (g) (7-8).
- n If more than 100 square feet or 100 linear feet of friable ACM will likely be removed, the abatement contractor must notify the Bay Area Air Quality Management District ten (10) working days prior to removing the material. Regulation: National Emission Standards for Hazardous Air Pollutants {NESHAPS – 40 CFR Part 61}.
- n Friable ACMs greater than 1% asbestos must be manifested, transported, and disposed of as hazardous waste in accordance with the Department of Toxic and Substances Control (DTSC), a division of Cal-EPA. DTSC regulates disposal of asbestos waste. DTSC issues U.S. EPA hazardous waste generator identification numbers.

6.2 Lead

Impacting lead materials or lead-containing paint either through repair, maintenance, renovation or demolition activities triggers numerous regulations enforced by such agencies as OSHA (worker protection), EPA (environmental exposure, transportation and disposal), and Department of Public Health (DPH).

Personnel performing demolition activities that may disturb painted components or materials with concentrations of lead above the designated analytical detection limit should comply with all current Cal-OSHA regulations in order to minimize employee exposure. Cal-OSHA defines lead containing paint as a paint, which contains lead, regardless of the concentration. Currently, any proposed renovation/demolition is subject to the Cal-OSHA regulations (Title 8 CCR 1532.1 – Lead Exposure in Construction). The Cal-OSHA regulation defines specific training requirements, engineering controls and working practices for construction personnel subject to this standard. Occupational exposure to lead occurring in the course of construction work, including maintenance activities, painting, alteration and repairs is subject to the Cal-OSHA “Interim” Lead Exposure in Construction standard.

Listed below are the lead paint regulations that apply if the paint is disturbed:

- n Construction work covered by Title 8 CCR 1532.1 includes any repair or renovation activities or other activities that disturb in-place lead-containing materials, but does not include routine cleaning and repainting where there is insignificant damage, wear, or corrosion of existing lead-containing coatings or substrates. Employers must assure that no employee will be

exposed to lead at concentrations greater than 50 micrograms per cubic meter (mg/m^3) averaged over an eight-hour period without adequate protection. The Cal-OSHA Standard also establishes an action level of $30 \text{ mg}/\text{m}^3$ which if exceeded triggers the requirement for medical monitoring.

- n Disposal of all lead-containing materials is regulated at concentrations at or exceeding 1,000 ppm as stated in 40 Code of Federal Regulations (CFR) Part 263 - Land Disposal Regulations and Title 22, Division 4 Environmental Health of the California Administrative Code. Proper waste stream categorization is required for the disposal of all lead containing materials and painted construction debris with total lead content that exceeds 50 ppm. The debris should be classified as hazardous waste if lead waste concentrations exceed either the total lead concentration or soluble lead concentration regulatory limits. Total lead concentration is determined by Total Threshold Limit Concentration (TTLC). Soluble or leachable lead is determined by the Soluble Threshold Limit Concentration (STLC, California required test) and/or Toxicity Characteristic Leaching Procedure (TCLP) (Federal EPA required test). Regulatory limits characterize a lead waste as a hazardous waste if lead concentrations exceed 1,000 ppm by TTLC or 5 milligram per liter by STLC or TCLP.
- n Federal OSHA as well as Cal-OSHA regulates all worker exposure during construction activities that impact lead-containing paint. Cal-OSHA enforces the Lead in Construction Standard in Title 8 CCR 1532.1. The scope covers construction work where employees may be exposed to lead during such activities as demolition, removal, surface preparation for re-painting, renovation, clean-up and routine maintenance. The OSHA specified method of compliance includes respiratory protection, protective clothing and equipment, housekeeping, hygiene facilities, medical surveillance, and training, among other requirements.

The above overview is not intended to be inclusive of all potentially pertinent regulatory information. The relevant EPA and OSHA standards should be consulted prior to undertaking activities involving the demolition, renovation, or maintenance of surfaces coated with lead containing paints.

6.3 PCBs

- n PCBs are regulated by the EPA under 40 CFR 761. The production of PCBs have been banned since 1979 and may be present in electrical capacitors, sealants, hydraulic oils, and transformers commonly found in buildings. Materials with greater than 50 ppm PCB content are considered PCB contaminated waste while materials with greater than 500 ppm PCB are considered PCB containing. PCB containing equipment and/or contaminated materials must be removed and disposed properly prior to demolition of a building.

- n Fluorescent light ballasts not specifically labeled as “No PCBs” may be present in the building and should be properly inspected prior to disposal. Listed below are regulations that may apply if PCB-containing fluorescent light ballasts are removed and disposed.
- n Light ballasts containing PCB oil in the small capacitor or the potting compound are regulated by the U.S. Environmental Protection Agency (EPA) under the Toxic Substance Control Act (TSCA) and Part 761, Title 40 of the Code of Federal Regulations (40 CFR Part 761). PCB wastes are also regulated as hazardous waste by the Department of Toxic Substance Control (DTSC) under the Health and Safety Code (HSC) and Title 22 of the California Code of Regulations.
- n All wastes must be packaged in an approved container. All wastes must be shipped by an authorized hazardous waste transporter with a proper Uniform Hazardous Waste Manifest to an authorized disposal facility.
- n Federal law requires that any ballast with leaking PCB must be incinerated at a U.S. EPA-approved high temperature incinerator. Non-leaking ballasts may be sent to a U.S. EPA-approved incinerator, landfill, or ballast recycling facility.

6.4 Mercury (Universal Waste)

Mercury containing fluorescent light tubes are present throughout the project area. Listed below are regulations that may apply if fluorescent light tubes are removed and disposed.

- n Universal waste lamps include, but are not limited to, fluorescent tubes, high intensity discharge (HID) lamps and sodium vapor lamps. Universal wastes are hazardous wastes that are more common and pose a lower risk to people and the environment than other hazardous wastes. Federal and State regulations identify universal wastes and provide rules for proper handling, recycling and disposal. The Universal Waste Rule is CCR Title 22, division 4.5, chapter 23.
- n Many universal wastes, including mercury-containing fluorescent light tubes, must be recycled at an authorized recycling facility. If universal wastes are not recycled they must be managed as hazardous waste.
- n Employees must be trained in proper universal waste management including handling, packaging, storing and labeling.
- n A Uniform Hazardous Waste Manifest is not required for universal waste shipments; however, proper shipping papers such as a bill of lading should be prepared.

7.0 LIMITATIONS

This limited hazardous materials survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the building. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by Contra Costa Community College District for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A

LABORATORY RESULTS & CHAIN OF CUSTODY – ASBESTOS



Report for:

Mr. Steffen Steiner
Terracon Consultants, Inc. - Emeryville
1466 66th Street
Emeryville, CA 94608

Regarding: Project: R1217097; LMC- L1177
EML ID: 2591672

Approved by:

Dates of Analysis:
Asbestos PLM: 03-10-2021



Approved Signatory
Renee Luna-Trepczynski

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)
NVLAP Lab Code 500031-0

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Terracon Consultants, Inc. - Emeryville
C/O: Mr. Steffen Steiner
Re: R1217097; LMC- L1177

Date of Sampling: 03-05-2021
Date of Receipt: 03-08-2021
Date of Report: 03-10-2021

ASBESTOS PLM REPORT

Total Samples Submitted: 26

Total Samples Analyzed: 26

Total Samples with Layer Asbestos Content > 1%: 2

Location: 1A, Caulking-Grey- Appliance Lab Sinks

Lab ID-Version‡: 12366580-1

Sample Layers	Asbestos Content
Gray Caulk	ND
Sample Composite Homogeneity:	Good

Location: 1B, Caulking-Grey- Appliance Lab Sinks

Lab ID-Version‡: 12366581-1

Sample Layers	Asbestos Content
Gray Caulk	ND
Sample Composite Homogeneity:	Good

Location: 2A, Grey Sound Proofing- Appliance Lab

Lab ID-Version‡: 12366582-1

Sample Layers	Asbestos Content
Gray Fireproofing	ND
Composite Non-Asbestos Content:	70% Glass Fibers 5% Cellulose
Sample Composite Homogeneity:	Good

Location: 2B, Grey Sound Proofing- Appliance Lab

Lab ID-Version‡: 12366583-1

Sample Layers	Asbestos Content
Gray Fireproofing	ND
Composite Non-Asbestos Content:	70% Glass Fibers 5% Cellulose
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Terracon Consultants, Inc. - Emeryville
C/O: Mr. Steffen Steiner
Re: R1217097; LMC- L1177

Date of Sampling: 03-05-2021
Date of Receipt: 03-08-2021
Date of Report: 03-10-2021

ASBESTOS PLM REPORT**Location: 2C, Grey Sound Proofing- Appliance Lab**

Lab ID-Version‡: 12366584-1

Sample Layers	Asbestos Content
Gray Fireproofing	ND
Composite Non-Asbestos Content:	70% Glass Fibers 5% Cellulose
Sample Composite Homogeneity:	Good

Location: 3A, Pipe End Cap Sealant- Appliance Lab- Shelves Above Sink

Lab ID-Version‡: 12366585-1

Sample Layers	Asbestos Content
White Sealant	ND
Yellow Fibrous Material	ND
Composite Non-Asbestos Content:	20% Glass Fibers
Sample Composite Homogeneity:	Moderate

Location: 3B, Pipe End Cap Sealant- Appliance Lab- Shelves Above Sink

Lab ID-Version‡: 12366586-1

Sample Layers	Asbestos Content
White Sealant	ND
Yellow Fibrous Material	ND
Composite Non-Asbestos Content:	35% Glass Fibers
Sample Composite Homogeneity:	Moderate

Location: 3C, Pipe End Cap Sealant- Appliance Lab- Shelves Above Sink

Lab ID-Version‡: 12366587-1

Sample Layers	Asbestos Content
White Sealant	ND
Yellow Fibrous Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Terracon Consultants, Inc. - Emeryville
 C/O: Mr. Steffen Steiner
 Re: R1217097; LMC- L1177

Date of Sampling: 03-05-2021
 Date of Receipt: 03-08-2021
 Date of Report: 03-10-2021

ASBESTOS PLM REPORT**Location: 4A, Pipe Support 8 "- Appliance- South End**

Lab ID-Version‡: 12366588-1

Sample Layers	Asbestos Content
White Pipe Insulation	15% Chrysotile
Sample Composite Homogeneity: Good	

Location: 4B, Pipe Support 8 "- Appliance- South End

Lab ID-Version‡: 12366589-1

Sample Layers	Asbestos Content
White Pipe Insulation	15% Chrysotile
Sample Composite Homogeneity: Good	

Location: 4C, Pipe Support 8 "- Appliance- South End

Lab ID-Version‡: 12366590-1

Sample Layers	Asbestos Content
Silver Insulation Backing	ND
White Pipe Insulation	ND
Composite Non-Asbestos Content:	10% Cellulose 5% Glass Fibers
Sample Composite Homogeneity: Moderate	

Location: 5A, Concrete- Appliance Lab- Floor North

Lab ID-Version‡: 12366591-1

Sample Layers	Asbestos Content
Gray Concrete	ND
Sample Composite Homogeneity: Good	

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Terracon Consultants, Inc. - Emeryville
C/O: Mr. Steffen Steiner
Re: R1217097; LMC- L1177Date of Sampling: 03-05-2021
Date of Receipt: 03-08-2021
Date of Report: 03-10-2021**ASBESTOS PLM REPORT****Location: 5B, Concrete- Appliance Lab- South Wall**

Lab ID-Version‡: 12366592-1

Sample Layers	Asbestos Content
Gray Concrete	ND
Sample Composite Homogeneity: Good	

Location: 5C, Concrete-HVAC Lab- North

Lab ID-Version‡: 12366593-1

Sample Layers	Asbestos Content
Gray Concrete	ND
Sample Composite Homogeneity: Good	

Location: 6A, 4" White Wall Tile, Mortar- Caulking

Lab ID-Version‡: 12366594-1

Sample Layers	Asbestos Content
Gray Mortar	ND
Sample Composite Homogeneity: Good	

Location: 6B, 4" White Wall Tile, Mortar- Caulking

Lab ID-Version‡: 12366595-1

Sample Layers	Asbestos Content
Gray Mortar	ND
Sample Composite Homogeneity: Good	

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Terracon Consultants, Inc. - Emeryville
C/O: Mr. Steffen Steiner
Re: R1217097; LMC- L1177Date of Sampling: 03-05-2021
Date of Receipt: 03-08-2021
Date of Report: 03-10-2021**ASBESTOS PLM REPORT****Location: 7A, 4" White Wall Tile Grout- Brown- Hallway Restroom**

Lab ID-Version‡: 12366596-1

Sample Layers	Asbestos Content
Brown Grout	ND
Sample Composite Homogeneity: Good	

Location: 7B, 4" White Wall Tile Grout- Brown- Hallway Restroom

Lab ID-Version‡: 12366597-1

Sample Layers	Asbestos Content
Brown Grout	ND
Sample Composite Homogeneity: Good	

Location: 8A, 2'X4' Pinhole Fissure Ceiling Tile- Hallway Restroom

Lab ID-Version‡: 12366598-1

Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	40% Cellulose 40% Glass Fibers
Sample Composite Homogeneity: Good	

Location: 8B, 2'X4' Pinhole Fissure Ceiling Tile-Hallway

Lab ID-Version‡: 12366599-1

Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	40% Cellulose 40% Glass Fibers
Sample Composite Homogeneity: Good	

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Terracon Consultants, Inc. - Emeryville
 C/O: Mr. Steffen Steiner
 Re: R1217097; LMC- L1177

Date of Sampling: 03-05-2021
 Date of Receipt: 03-08-2021
 Date of Report: 03-10-2021

ASBESTOS PLM REPORT**Location: 8C, 2'X4' Pinhole Fissure Ceiling Tile-HVAC Lab**

Lab ID-Version‡: 12366600-1

Sample Layers	Asbestos Content
Gray Ceiling Tile with White Surface	ND
Composite Non-Asbestos Content:	40% Cellulose 40% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 9A, Fire Proofing- HVAC Lab- on Beams w/ Over Spray onto Deck

Lab ID-Version‡: 12366601-1

Sample Layers	Asbestos Content
Brown Fireproofing	ND
Composite Non-Asbestos Content:	10% Cellulose 5% Vermiculite
Sample Composite Homogeneity:	Good

Location: 9B, Fire Proofing- HVAC Lab- on Beams w/ Over Spray onto Deck

Lab ID-Version‡: 12366602-1

Sample Layers	Asbestos Content
Brown Fireproofing	ND
Composite Non-Asbestos Content:	10% Cellulose 5% Vermiculite
Sample Composite Homogeneity:	Good

Location: 9C, Fire Proofing- HVAC Lab- on Beams w/ Over Spray onto Deck

Lab ID-Version‡: 12366603-1

Sample Layers	Asbestos Content
Brown Fireproofing	ND
Composite Non-Asbestos Content:	10% Cellulose 5% Vermiculite
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Terracon Consultants, Inc. - Emeryville
 C/O: Mr. Steffen Steiner
 Re: R1217097; LMC- L1177

Date of Sampling: 03-05-2021
 Date of Receipt: 03-08-2021
 Date of Report: 03-10-2021

ASBESTOS PLM REPORT**Location: 9D, Fire Proofing- HVAC Lab- on Beams w/ Over Spray onto Deck**

Lab ID-Version‡: 12366604-1

Sample Layers	Asbestos Content
Brown Fireproofing	ND
Composite Non-Asbestos Content:	10% Cellulose 5% Vermiculite
Sample Composite Homogeneity:	Good

Location: 9E, Fire Proofing- HVAC Lab- on Beams w/ Over Spray onto Deck

Lab ID-Version‡: 12366605-1

Sample Layers	Asbestos Content
Brown Fireproofing	ND
Composite Non-Asbestos Content:	10% Cellulose 5% Vermiculite
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. Eurofins EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

re: *[Signature]* Date: 3/5/04 R
re: *[Signature]* Date: 3/6/04 R

HM#	Material Description	Sample ID	Sample Location & Material Location	Quantity:
5	Concrete	5A	App/ma Lab - Floor - North	
		5B	↓ - South side	
		5C	HVAC LAB - North	
6	Material Description: 4" white wall tile mortar - Gltin	6A	Hallway Restroom	
		6B	↓	
7	Material Description: 4" white wall tile Gltin - BROWN	7A	Hallway Restroom	
		7B	↓	
8	Material Description: 2' x 4' 9in hole Assure ceiling tile	8A	Hallway Restroom	
		8B	Hallway	
		8C	HVAC LAB	
9	Material Description: Fire Proofing	9A	HVAC LAB - on beams w/over spray onto deck	
		9B	↓	
		9C	↓	
		9D	↓	
		9E	↓	



APPENDIX B

LABORATORY RESULTS & CHAIN OF CUSTODY – LEAD



Report for:

Mr. Steffen Steiner
Terracon Consultants, Inc. - Emeryville
1466 66th Street
Emeryville, CA 94608

Regarding: Project: R1217097; LMC-L1177
EML ID: 2591564

Approved by:



Laboratory Manager
Danny Li

Dates of Analysis:
Lead - Flame AA: 03-09-2021

Service SOPs: Lead - Flame AA (EM-BC-S-8443)
AIHA-LAP, LLC accredited service, Lab ID #178697

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested. Sample size, as it relates to Wipe samples only, is supplied by the client.

Eurofins EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Eurofins EMLab P&K's LabServe® reporting system includes automated fail-safes to ensure that all AIHA-LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

Client: Terracon Consultants, Inc. - Emeryville
C/O: Mr. Steffen Steiner
Re: R1217097; LMC-L1177Date of Sampling: 03-05-2021
Date of Receipt: 03-08-2021
Date of Report: 03-10-2021**LEAD: FLAME ATOMIC ABSORPTION SPECTROMETRY**

Location:	PB-01: Blue, Metal, Cond Unit Box, Appliance Lab	PB-02: Orange, Wood, HVAC Duct, Appliance Lab	PB-03: Gray, Wood, Wall, Hallway
Comments (see below)	None	None	None
Lab ID-Version‡:	12364609-1	12364610-1	12364611-1
Analysis Date:	03/09/2021	03/09/2021	03/09/2021
Sample type	Paint Chip sample	Paint Chip sample	Paint Chip sample
Method*	NIOSH 7082 & EPA 7000B modified	NIOSH 7082 & EPA 7000B modified	NIOSH 7082 & EPA 7000B modified
† Method Reporting Limit	58 ppm	39 ppm	39 ppm
Sample size	0.1739 grams	0.2563 grams	0.2584 grams
§ Total Lead Result	3200 ppm	560 ppm	53 ppm

Comments:

Sample results have not been corrected for blank values.

Bulk samples are not covered under the AIHA-LAP, LLC service accreditation.

Wipe samples must meet ASTM E1792 criteria. Method Reporting Limits may not be valid for non-ASTM E1792 wipe samples.

*Sample preparation and analytical methods are based upon NIOSH 7082 and EPA 7000B.

† The Method Reporting Limit is the minimum concentration of Lead that the laboratory can confidently detect in the sample.

§ Total Lead Result has been rounded to two significant figures to reflect analytical precision.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".



002591564

**LEAD PAINT
SAMPLE DATA SHEET**X PM - S. Steiner
spsteiner@terracon.comPM - K. Schroeter
kmschroeter@terracon.comPM - K. Pilgrim
kmpilgrim@terracon.comPM - M. Benefield
msbenefield@terracon.comPM - T. Kattchee
takattchee@terracon.comPM - W. Frieszell
wmfrieszell@terracon.comDenise Wallen
Denise.Wallen@terracon.comH. Santos
Heidi.Santos@terracon.comPM - David Block
David.Block@terracon.com

* Lead Analysis

Flame AA (EPA 7420)

TTL

PAGE 1 OF 1

Project Name/Address/Building No.: LMC - L1177

Project #: R1217097

Sampled By: [Signature]

Sampling Date: 3/5/21

Sample(s) Sent To: SGS Forensic MAL EMLab TAT: Rush 24Hrs 48Hrs 3-5 Days

Sample ID	Paint Description and Sample Location	Condition (I/F/P)
Ph01	Paint Color: BLUE Substrate: metal Component: Conduit Box Sample Location: Bldg. # Unit # Room Appliance LAB	I
Ph02	Paint Color: ORANGE Substrate: metal Component: HVAC Duct Sample Location: Bldg. # Unit # Room Appliance LAB	I
Ph03	Paint Color: Gray Substrate: wood Component: wall Sample Location: Bldg. # Unit # Room Hallway	I
	Paint Color: Substrate: Component: Sample Location: Bldg. # Unit # Room	
	Paint Color: Substrate: Component: Sample Location: Bldg. # Unit # Room	
	Paint Color: Substrate: Component: Sample Location: Bldg. # Unit # Room	
	Paint Color: Substrate: Component: Sample Location: Bldg. # Unit # Room	
	Paint Color: Substrate: Component: Sample Location: Bldg. # Unit # Room	
	Paint Color: Substrate: Component: Sample Location: Bldg. # Unit # Room	
	Paint Color: Substrate: Component: Sample Location: Bldg. # Unit # Room	

Relinquished By: [Signature]

Signature: [Signature]

Date/Time: 3/5/21

Received By:

Signature: [Signature]

Date/Time: 3/8/21 930

Relinquished By:

Signature:

Date/Time:

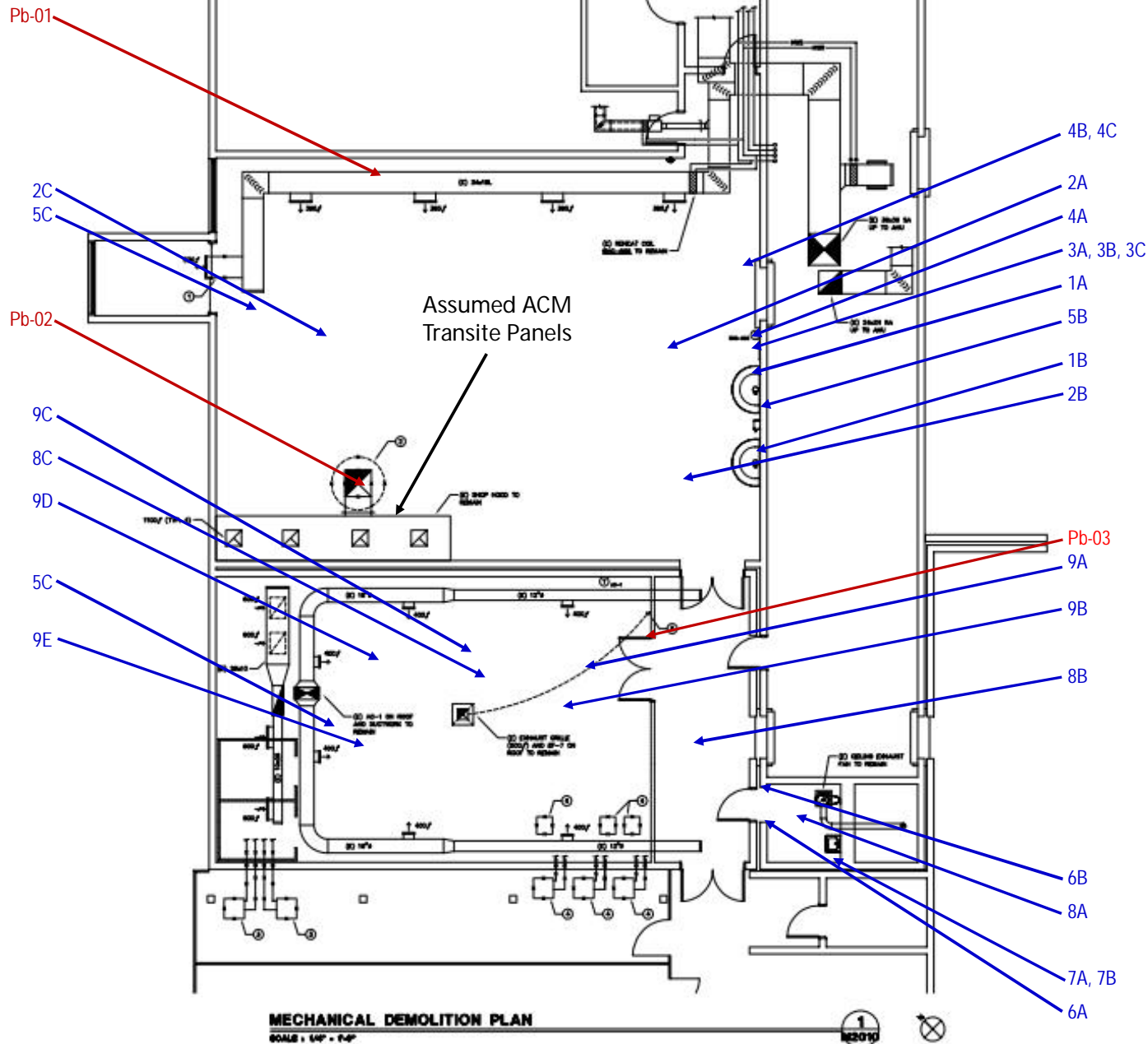
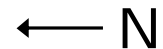
Received By:

Signature:

Date/Time:

APPENDIX C
SAMPLE LOCATION DRAWING

Los Medanos College
L-1177 Industrial Trades
Labs Renovation
2700 E. Leland Road
Pittsburg, California



Survey Date	Drafted By
March 5, 2021	DW
Project Number	Checked By
R1217097	SS
Sheet Name	
Interior Sampling Locations	
Sheet Number	
Figure 1	

Note: Sample location figures are for informational purposes and are approximate in nature. No scale is associated with any of the provided documents.

APPENDIX D

TERRACON INSPECTOR CERTIFICATIONS

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

Matthew P Chin

Name

Certification No. **08-4332**

Expires on **02/21/22**

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.





STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Matthew Chin

CERTIFICATE TYPE:

Lead Inspector/Assessor
Lead Project Monitor

NUMBER:

LRC-00002676
LRC-00002675

EXPIRATION DATE:

10/5/2021
10/5/2021

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

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

Steffen Paul Steiner

Name



Certification No. **92-0850**

Expires on **01/08/22**

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.



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:



Steffen Steiner

CERTIFICATE TYPE:

Lead Inspector/Assessor

NUMBER:

LRC-00005586

EXPIRATION DATE:

5/15/2022

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.