Magnolia Environmental, LLC

Project:
Limited Asbestos and Lead Survey Report

1995 Market St.
Riverside, CA 92501

Project Number: 5536

Local Office:
Magnolia Environmental
17226 ½ Jersey Ave.
Artesia, CA 90701
Office: 562-922-3144

Client:

Riverside County Flood Control

Date Report Issued:

May 8, 2023

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Appendices

INTRODUCTION

The client referenced above retained Magnolia Environmental to perform an environmental evaluation that included: asbestos-containing material (ACM) and lead-based paint (LBP), at the property referenced above prior to renovation. The evaluation included the sampling of suspect asbestos containing materials, potential lead-based paint, and a visual assessment in areas that will be impacted during the renovation project at the subject property. Tyler Gimarse Certified Site Surveillance Technician (CSST) No. 21-6706 and California Department of Public Health (CDPH) Lead Sampling Technician No. LRC-00004184 performed the on-site hazard evaluation under the supervision of Industrial hygienist, Andrea Pulsipher Cal-OSHA Certified Asbestos Consultant (CAC) No. 17-5929, and California Department of Public Health Certified Lead Inspector/Assessor No. LRC-00003897, on May 4, 2023.

Magnolia Environmental report is for the exclusive use of our client referenced above and applies only to the structures referenced above or portion thereof. No one other than our client or those contracted by our client may utilize, reference, or otherwise rely on this report without prior written consent from Magnolia Environmental.

DESCRIPTION OF FACILITY/WORK AREA

Work area is located at the WPD laboratory/storage room county building for the Riverside County Flood Control and Water Conservation District. No obvious fire or structural damage was observed at the time of inspection.

PURPOSE AND SCOPE

The purpose of this investigation is to perform a hazardous materials environmental evaluation in order to aid our client referenced above prior to renovation at the subject property.
Magnolia Environmental's scope of work included:

- A visual reconnaissance of the impacted areas on the property to evaluate the possible presence of ACM and LBP
- Collection of bulk samples of suspect ACM, submittal to a NVLAP accredited laboratory for analysis.
- Collection of paint was sampled for potential LBP by XRF analysis.
- Assessment of the condition of potential ACM and LBP.
- Preparation of this report, which presents our data and summarizes the assessed materials.

METHODS

A. ASBESTOS

Suspect asbestos materials are sampled and later identified using the Polarized Light Microscopy (PLM) method in accordance with the EPA Interim method of the Determination of Asbestos in Bulk Samples (EPA/600/ R-93/116, July 1993). Sampling was performed in accordance with 40 CFR 763.86. Homogeneous areas were based on the total functional space. Number of samples per homogeneous area was taken as recommended under said section "Sampling Procedures". The PLM Method is the most commonly used method to analyze building materials for the presence of asbestos. This method utilizes the optical properties of minerals to identify the selected constituent. The use of this method enables identification of the type and the percentage of asbestos in each sample. The detection limit of the PLM method for asbestos identification is about one (1) percent asbestos. Because the State of California recognizes asbestos-containing building material (ACBM) as any material, which contains greater than or equal to one tenth of one percent (.1) asbestos, materials containing "trace" amounts of asbestos are reported as ACBM in the State of California. CSC recommends Transmission Electron Microscopy (TEM) analysis for asbestos samples with one percent (l%) or less asbestos content and Point Count Method with results ranging between two percent (2%) and ten percent (10%) when analyzed via PLM.

Documentation of the laboratory results should be retained as a reference for general building safety and maintenance, and for any future renovation/ demolition activities.

INSPECTION PROCEDURE (763.85)

Areas Inspected: The inspector performed a preliminary walk-through to designate the functional spaces. She also noted which areas had homogeneous materials.

The inspector then visually inspected each accessible room that will be impacted during the renovation. The inspector touched suspect materials to determine if they were friable. For each suspect material, the inspector noted its condition and the potential for disturbance.

Quantities: Suspect asbestos-containing materials identified at the site were quantified. For general functional space measurements were used. Such measurements provide "approximate square or linear footage" (763.93 (d)(2)(ii)). Suspect Asbestos-Containing Materials: were sampled for laboratory analysis or were visually identified as ACM. Magnolia Environmental collected a total of nine (9) bulk samples of suspect ACM material. The samples were transferred following proper chain of custody protocol to Ecologics Laboratories, located at 2487 Orangethorpe Ave. Fullerton, CA 92831, for analysis and can be reached at (714) 632-8118. Ecologics Laboratories is an accredited laboratory for bulk asbestos analysis under the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (CertificationNumber 600190-0).

A total of 9 bulk samples were collected. Below is a list of samples collected:

- GB-1 Ceiling gypsum board
- GB-2 Ceiling gypsum board
- GB-3 Ceiling gypsum board
- JC-1 Ceiling joint compound
- JC-2 Ceiling joint compound
- JC-3 Ceiling joint compound
- F-1 12x12 Beige floor tile and associated black/tan mastic
- F-2 12x12 Beige floor tile and associated black/tan mastic
- F-3 12x12 Beige floor tile and associated black/tan mastic

B. LEAD-BASEDPAINT

Our inspector analyzed three (3) paint samples from representative surfaces of the areas that will be impacted during the renovation. The samples were analyzed via XRF analysis; results are attached in appropriate appendixes.

RESULTS

A. ASBESTOS

Nine (9) bulk samples were taken using polarized light microscopy (PLM). The following table summarizes the results of the sample analysis and of the visual assessment. A complete list of sample results can be found in the laboratory sheets at the end of this report.

TABLE I: ACM RESULTS

Sample #	Sample ID	Material Description	Sample Location	F/NF[1]	Cond.[2]	ACM	Est. Quantity
01	GB-1	Ceiling Gypsum Board	Ceiling gypsum board sampled from the WPD Laboratory	NF	G	NAD	240 SF
02	GB-2	Ceiling Gypsum Board	Ceiling gypsum board sampled from the WPD Laboratory	NF	G	NAD	240 SF
03	GB-3	Ceiling Gypsum Board	Ceiling gypsum board sampled from the WPD Laboratory	NF	G	NAD	240 SF
04	JC-1	Ceiling Joint Compound	Ceiling joint compound sampled from the WPD Laboratory	NF	G	**Assumed**	240 SF
05	JC-2	Ceiling Joint Compound	Ceiling joint compound sampled from the WPD Laboratory	NF	G	**Assumed**	240 SF
06	JC-3	Ceiling Joint Compound	Ceiling joint compound sampled from the WPD Laboratory	NF	G	**Assumed**	240 SF
07	F-1	12x12 Beige Floor Tile	12x12 Beige floor tile sampled from the WPD Laboratory	NF	G	NAD	240 SF
07 Layer Two	F-`	Black/Tan Mastic Associated with 12x12 Beige Floor Tile	Black/Tan Mastic associated with 12x12 beige floor tile	NF	G	**2%**	240 SF
08	F-2	12x12 Beige Floor Tile	12x12 Beige floor tile sampled from the WPD Laboratory	NF	G	NAD	240 SF
08 Layer Two	F-1	Black/Tan Mastic Associated with 12x12 Beige Floor Tile	Black/Tan Mastic associated with 12x12 beige floor tile	NF	G	**2%**	240 SF
09	F-3	12x12 Beige Floor Tile	12x12 Beige floor tile sampled from the WPD Laboratory	NF	G	NAD	240 SF
09 Layer Two	F-2	Black/Tan Mastic Associated with 12x12 Beige Floor Tile	Black/Tan Mastic associated with 12x12 beige floor tile	NF	G	**2%**	240 SF

[1]-F=Friable; NF= Non-Friable

[2]-Cond = condition of Materials. Either good (G), damaged (D), or significantly damaged (SD)

[3]-NAD=No asbestos detected

*See the laboratory report and chain custodies for the complete list materials tested and the sampling locations.
**Listed square footage is an estimate and should not be used for bidding purposes. Contractor should confirm quantities.
***Should the demolition/renovation process reveal any additional suspect asbestos-containing materials; work must stop until the suspect materials are tested for asbestos content.

B. LEAD-BASEDPAINT

TABLE II: LBP RESULTS

Lead Paint XRF Results								
Read No.	**Site Location**	**Component**	**Substrate**	**Side[1]**	**Paint Cond.[2]**	**Color**	**Lead Content (mg/cm²)**	**Classification[3]**
1	Calibration						1.0	
2	Calibration						1.0	
3	Calibration						1.0	
4	WPD Laboratory	Ceiling	Gypsum Board	A	I	Light Brown	0.1	LCP
5	WPD Laboratory	Wall	Concrete	A	I	Grey	0.3	LCP
6	WPD Laboratory	Wall	Gypsum Board	A	I	Grey	0.0	BDL

Legend:

mg/cm² = milligrams per centimeter squared

[1] Side: A=Street side, B = To the left of side A, C = Across side A, D = To the right of side A

[2] Paint Condition: I = Intact, D = Deteriorated

[3] Classification:
BDL = Below the XRF's detection level; less than 0.1 mg/cm².
LCP = Lead Containing Paints; any detectable concentration
LBP = Lead-Based Paints; equal to or exceeding 1.0 mg/cm² or 0.5 mg/cm² for City of San Diego or 0.7 mg/cm² for Los Angeles County.
* Paint conditions are based on visual observations in survey areas. Different conditions may be present in other areas of the Subject Property. Limit of Detection (LOD) is 0.1 mg/cm²

CONCLUSION / RECOMMENDATIONS

A. ASBESTOS

According to bulk sampling and visual inspection of impacted areas, the following materials is ACM subject to Rule 1403:

- **Ceiling joint compound***
- **Black/Tan mastic associated with 12x12 beige floor tile**

*The ceiling joint compound sampled was found to contain <1% asbestos and can be point counted. Due to the ceiling joint compound containing asbestos, I, Andrea Pulsipher CAC No. 17-5929, assume the **ceiling joint compound** is ACM subject to Rule 1403.

Abatement by a licensed abatement contractor is required prior to disturbance of asbestos containing materials.

It is always necessary to comply with the pertinent provisions of EPA, OSHA and AQMD regulations during any removal or repair activities that may disturb the asbestos- containing materials that may have been inaccessible and or untested during the survey. Caution should be taken when inaccessible and untested areas are disturbed.

The Environmental protection Agency (EPA) and California OSHA (Cal/OSHA) define materials which contain more than one percent asbestos to be asbestos containing materials (ACM). In addition, Cal/ OSHA defines any manufactured construction material more than 0.1% asbestos as asbestos- containing construction materials (ACCMs). Cal/OSHA also requires notification and registration of the contractor when disturbing materials with more than one-tenth of one percent asbestos and regulates worker protection whenever materials containing any detectable levels of asbestos are disturbed.

B. LEAD

Based on the field assessment and XRF analysis, Lead-Based paint was not detected on the materials sampled.

If, during future work, materials or surface coatings suspected to contain asbestos or lead are encountered that were not specifically addressed during this survey (e.g., under/behind existing materials or in areas that were not included in the scope of this survey), the newly discovered suspect materials/ surface coatings should be appropriately evaluated for asbestos and/or lead content prior to initiating any work or activities involving their disturbance. It is always necessary to comply with the pertinent provisions of EPA, OSHA regulations during any removal or repair activities that may disturb the lead-containing materials that may have been inaccessible and untested areas during this survey. Caution should be taken when inaccessible and untested areas are disturbed.

LIMITATIONS

Magnolia Environmental prepared this asbestos and lead survey for the client referenced above. No warranties expressed or implied, are made by Magnolia Environmental or its employees as to the use of any information, apparatus, product, or process disclosed in this report. Though reasonable efforts have been made to assure correctness, if a Contractor is employed, he should bring any discrepancies to the immediate attention of Magnolia Environmental.

We have employed state-of-the-art practices to perform this analysis of risk and identification, but this evaluation is severely limited in scope to areas accessible to a visual inspection or through reasonable means of the areas evaluated. No demolition or product review was performed in attempts to reveal material compositions. Our services consist of professional opinions and recommendations made in accordance with generally accepted engineering principles and practices and are designed to provide an analytical tool to assist the client. Magnolia Environmental or those representing Magnolia Environmental bear no responsibility for the actual condition of the structure or safety of a site pertaining to asbestos and/or asbestos contamination regardless of the actions taken by the client.

Magnolia Environmental appreciated having the opportunity to inspect your property. If you have any questions regarding this survey or other environmental hazards, please don't hesitate to contact us at (562) 922-3144 or at Office@Magnoliaenvironmental.com.

Andrea Pulsipher Project
Consultant CAC No. 17-5929
CDPH Lead Inspector/Assessor LRC-00003897

APPENDIX A

ASBESTOS LABORATORY ANALYTICAL RESULTS AND CHAIN OFCUSTODY

Ecologics Laboratories
2487 E. Orangethorpe Ave.
Fullerton, CA 92831
(714) 632-8118
www.ecologicslab.com

PLM Bulk Asbestos Report

Client: Magnolia Environmental
Address: 17226 1/2 Jersey Ave. Artesia, CA 90701
Project #: 5536
Project Name: N/A
Project Location: 1995 Market St. Riverside, CA 92501

LAB Job #: 230506011
# of Samples: 9
Collected By: Tyler Gimarse
Date Received: 05/04/2023
Date Analyzed: 05/06/2023

Client ID	Layer #	Lab ID	Asbestos (Y or N)	% Asbestos / Type
GB-1	230506011.01.A	230506011.01		
Location : WDP Laboratory **Analyst Description / Color** : Gypsum Board, Firm, Homogeneous, White **Asbestos Type** : **NONE** **Other Material Type** : 5% Cellulose, 2% Fiberglass, 93% Non-Fibrous Material			No	NAD
GB-2	230506011.02.A	230506011.02		
Location : WDP Laboratory **Analyst Description / Color** : Gypsum Board, Firm, Homogeneous, White **Asbestos Type** : **NONE** **Other Material Type** : 5% Cellulose, 2% Fiberglass, 93% Non-Fibrous Material			No	NAD
GB-3	230506011.03.A	230506011.03		
Location : WDP Laboratory **Analyst Description / Color** : Gypsum Board, Firm, Homogeneous, White **Asbestos Type** : **NONE** **Other Material Type** : 5% Cellulose, 2% Fiberglass, 93% Non-Fibrous Material			No	NAD
JC-1	230506011.04.A	230506011.04		
Location : WDP Laboratory **Analyst Description / Color** : Joint Compound, Firm, Homogeneous, Beige **Asbestos Type** : **Chrysotile** **Other Material Type** : 100% Non-Fibrous Material			Yes	<1% Chrysotile
JC-2	230506011.05.A	230506011.05		
Location : WDP Laboratory **Analyst Description / Color** : Joint Compound, Firm, Homogeneous, Beige **Asbestos Type** : **Chrysotile** **Other Material Type** : 100% Non-Fibrous Material			Yes	<1% Chrysotile
JC-3	230506011.06.A	230506011.06		
Location : WDP Laboratory **Analyst Description / Color** : Joint Compound, Firm, Homogeneous, Beige **Asbestos Type** : **Chrysotile** **Other Material Type** : 100% Non-Fibrous Material			Yes	<1% Chrysotile

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Project #: 5536
Project Name: N/A
Project Location: 1995 Market St. Riverside, CA 92501

LAB Job #: 230506011
# of Samples: 9
Collected By: Tyler Gimarse
Date Received: 05/04/2023
Date Analyzed: 05/06/2023

Client ID	Layer #	Lab ID	Asbestos (Y or N)	% Asbestos / Type
F-1	230506011.07.A	230506011.07		
Location : WDP Laboratory **Analyst Description / Color** : Floor Tile, Firm, Homogeneous, Beige **Asbestos Type** : **NONE** **Other Material Type** : 100% Non-Fibrous Material			No	NAD
F-1	230506011.07.B	230506011.07		
Location : WDP Laboratory **Analyst Description / Color** : Mastic, Firm, Non-Homogeneous, Black, Tan **Asbestos Type** : **Chrysotile** **Other Material Type** : 98% Non-Fibrous Material			Yes	2% Chrysotile
F-2	230506011.08.A	230506011.08		
Location : WDP Laboratory **Analyst Description / Color** : Floor Tile, Firm, Homogeneous, Beige **Asbestos Type** : **NONE** **Other Material Type** : 100% Non-Fibrous Material			No	NAD
F-2	230506011.08.B	230506011.08		
Location : WDP Laboratory **Analyst Description / Color** : Mastic, Firm, Non-Homogeneous, Black, Tan **Asbestos Type** : **Chrysotile** **Other Material Type** : 98% Non-Fibrous Material			Yes	2% Chrysotile
F-3	230506011.09.A	230506011.09		
Location : WDP Laboratory **Analyst Description / Color** : Floor Tile, Firm, Homogeneous, Beige **Asbestos Type** : **NONE** **Other Material Type** : 100% Non-Fibrous Material			No	NAD
F-3	230506011.09.B	230506011.09		
Location : WDP Laboratory **Analyst Description / Color** : Mastic, Firm, Non-Homogeneous, Black, Tan **Asbestos Type** : **Chrysotile** **Other Material Type** : 98% Non-Fibrous Material			Yes	2% Chrysotile

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PLM Bulk Asbestos Report

Client: Magnolia Environmental
Address: 17226 1/2 Jersey Ave. Artesia, CA 90701
Project #: 5536
Project Name: N/A
Project Location: 1995 Market St. Riverside, CA 92501

LAB Job #: 230506011
# of Samples: 9
Collected By: Tyler Gimarse
Date Received: 05/04/2023
Date Analyzed: 05/06/2023

Thu Nguyen – Analyst

Jhair Gonzalez – Approved by

NAD = no asbestos detected; NA = not analyzed, PS = positive stop; Reporting Limits: CVES = 1%, 400 PT CT = 0.25%, 1,000 PT CT = 0.1%. The analyses of the samples in this report were performed and analyzed in accordance with the procedures outlined in EPA 600/R-93/116 (Method for Determination of Asbestos in Building Materials); EPA 600/M4-82-020 (Interim Method for the Determination of Asbestos in Bulk Insulation Samples) and US Federal Register 40 CFR Appendix E to Subpart E of Part 763 (Interim Method of the Determination of Asbestos in Bulk Insulation Samples). Samples were analyzed using Calibrated Visual Estimate (CVES), therefore results may not be reliable for samples with low concentration levels or other Non-Friable Organically Bound (NOB) materials. The limit of detection for this analytical method is less than one percent (<1%) and total sample constituents may total greater than 100% due to trace amounts. These results lie within the statistical limits of variability calculated with standard reference materials routinely analyzed in the laboratory. In multi-layer samples, unless otherwise specified, the asbestos concentration is reported for the layer where asbestos is found. This report only relates to the samples that were submitted and Ecologics Lab and its personnel assumes no responsibility and/or are not liable for any misinformation provided by the client such as “sample location” or “sample type.” This report may contain specific data not covered by NVLAP and is identified if footnotes are present. This report was issued by Ecologics Lab which is accredited by NVLAP (Lab Code 600190-0) and may not be reproduced except in full, without written approval of this laboratory. This report may not be used by the client to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. NVLAP Lab Code: 600190-0

230506011

ECOLOGICS LABS

CHAIN OF CUSTODY

2487 E. Orangethorpe Ave. Fullerton, CA 92831
(714) 632-8118 reports@ecologicslab.com

Job ID:230506011
Magnolia Environmental

CONTACT INFORMATION *	PROJECT INFORMATION *
Company: Magnolia Environmental, LLC	Project #: 5536
Address: 17226 1/2 Jersey Ave. Artesia, CA 90701	Project name:
Phone: 562-922-3144	Project location: 1995 Market St.
Contact: Andrea Pulsipher	Riverside, CA 92501
Email results to: maglabresults@gmail.com	Date sampled: 5/4/23
	Sampled by: Tyler Cravens

ASBESTOS	MICROBIOLOGY
☒ PLM Bulk Analysis (EPA 600/R-93/116)	☐ Fungi: Non Viable Mold (ST)
☐ PLM 1,000 Point Count (<0.1%) ☐ Non-Gravimetric	☐ Fungi: Non Viable Mold (TL, B, SW)
☐ PLM 400 Point Count (<0.25%) ☐ Non-Gravimetric	☐ Fungi: Quantitative Spore Count Direct Exam (TL, B, SW)
☐ PLM Qualitative (Dust Wipe or Soil)	☐ Bacteria: Total Coliform, *E. coli* (P/A)
☐ PCM Airborne Fiber Count (NIOSH 7400)	☐ Bacteria: Total Coliform, *E. coli*, *Enterococcus* (P/A)
☐ PCM Airborne Fiber Count with TWA	☐ Material Science Analysis (Soot, Char, Ash, etc.)

☐ Other:

Turnaround time (TAT) *: ☐ 3 Hrs ☐ 6 Hrs ☐ 8 Hrs ☐ 24 Hrs ☐ 48 Hrs ☒ 72 Hrs ☐ Other:

Additional information/ Special instructions:

☒ Stop at 1st positive on samples greater than 1%, EXCEPT for: F-1, F-2, F-3

☐ Composite 1 wall system sample if found to be greater than or equal to 1%.

☐ Other: _____

SAMPLE ID		LOCATION *	DESCRIPTION *	ASBESTOS			MICROBIOLOGY/PCM				TOTAL
				COND	QTY SF/LF	FRIABLE Y/N	TIME START	TIME STOP	FLOW START	FLOW STOP	
1	GB-1	WPP Laboratory	Gypsum board	G	240	N					
2	GB-2	↓	↓	↓	↓	↓					
3	GB-3	↓	↓	↓	↓	↓					
4	JC-1		Joint Compound	G	240	N					
5	JC-2		↓	↓	↓	↓					
6	JC-3		↓	↓	↓	↓					
7	F-1		12x12 Beige Floor Tile	G	240	N					
8	F-2		↓	↓	↓	↓					
9	F-3	↓	↓	↓	↓	↓					

Weather	Fog	Rain	Snow	Wind	Clear	TIME *	DATE *	RELINQUISHED BY *	RECEIVED BY
	☐	☐	☐	☐	☐	2:02p	5/4/23	Tyler Cravens	MAY 4'23 PM 2:02
						2:02p	5/4/23	Rodolfo Orozco	

* Necessary information for processing.

ST: Spore Trap, **TL:** Tape Lift, **B:** Bulk, **Sw:** Swab, **P/A:** Presence/ Absence, **QTY:** Quantity, **SF:** Square Foot, **LF:** Linear Foot,

COND: Conditions: G = Good; D = Damaged; SD = Significantly Damaged.

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EL_FORM_001-COC

APPENDIX B

LEAD BASED PAINT
PERFORMANCE CHARACTERIZATION SHEET

Performance Characteristic Sheet

EFFECTIVEDATE: **December 1, 2015**

MANUFACTURERANDMODEL:

Make: ***Heuresis***
Models: ***Model Pb200i***
Source: ***^{57}Co, 5 mCi(nominal–newsource)***

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Action Level mode

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive)

SUBSTRATE CORRECTION:

Not applicable

INCONCLUSIVE RANGE OR THRESHOLD:

ACTION LEVEL MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD(mg/cm^2)
Results not corrected for substrate bias on any substrate	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in November 2015, with two separate instruments running software version 2.1-2 in Action Level test mode. The actual source strength of each instrument on the day of testing was approximately 2.0 mCi; source ages were approximately one year.

OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm^2 for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm^2 at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

> Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm^2. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.
>
> Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.
>
> <u>For each substrate type</u> (the 1.02 mg/cm^2 NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):
>
> Correction value = (1st + 2nd + 3rd + 4th + 5th + 6th *Reading*)/6 - 1.02 mg/cm^2
>
> Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and the retest XRF result for eachtesting combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

Compute the average of all ten re-test XRF readings.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, thisprocedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspectionshould be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

Inthe Action Levelpaint test mode,the instrument takes the longesttimetocompletereadings closeto theFederalstandard of 1.0 mg/cm^2. Thetable belowshows the mean andstandard deviation of actual readingtimes by reading levelfor paintsamples duringtheNovember 2015 archivetesting.Thetested instruments reported readings to one decimal place. No significant differences in reading times by substratewereobserved.Thesetimesapply onlytoinstruments withthesamesourcestrength as those tested (2.0 mCi). Instruments with stronger sources will have shorter reading times and those with weaker sources, longer reading times, than those inthetable.

Mean and Standard Deviation of Reading Times in Action Level Mode by Reading Level		
Reading (mg/cm^2)	**Mean Reading Time (seconds)**	**Standard Deviation (seconds)**
< 0.7	3.48	0.47
0.7	7.29	1.92
0.8	13.95	1.78
0.9 – 1.2	15.25	0.66
1.3 – 1.4	6.08	2.50
> 1.5	3.32	0.05

CLASSIFICATION OF RESULTS:

XRF results are classified as **positive** if they are **greater than or equal** to the stated threshold for the instrument (1.0 mg/cm^2), and *negative* if they are *less than* the threshold.

DOCUMENTATION:

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets- epa-747-r-95-008-september-1997.

This XRF Performance Characteristic Sheet (PCS) was developed by QuanTech, Inc., under a contract with the XRF manufacturer.

APPENDIX C

SITE MAP/SKETCH

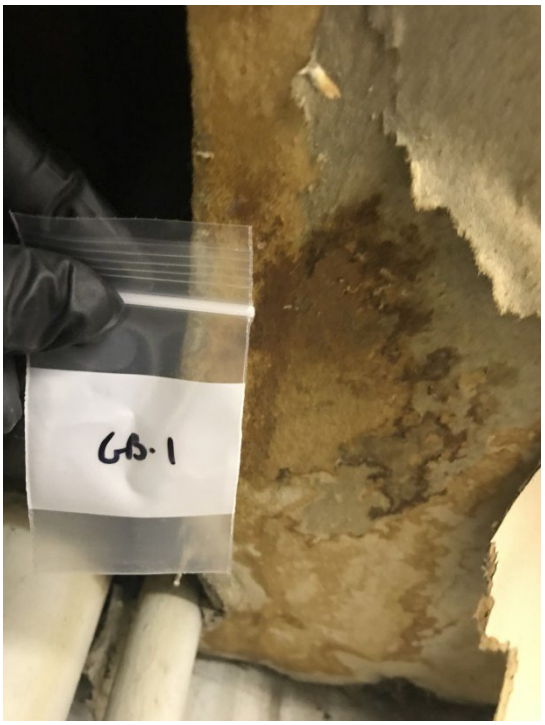
Sketch not to scale.

Sample ID indicates location of sampling.

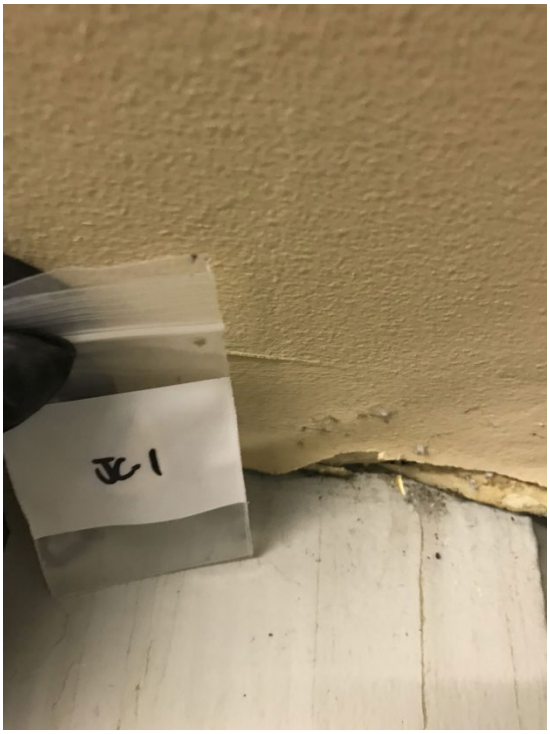
APPENDIX D

SITE PHOTOGRAPHS

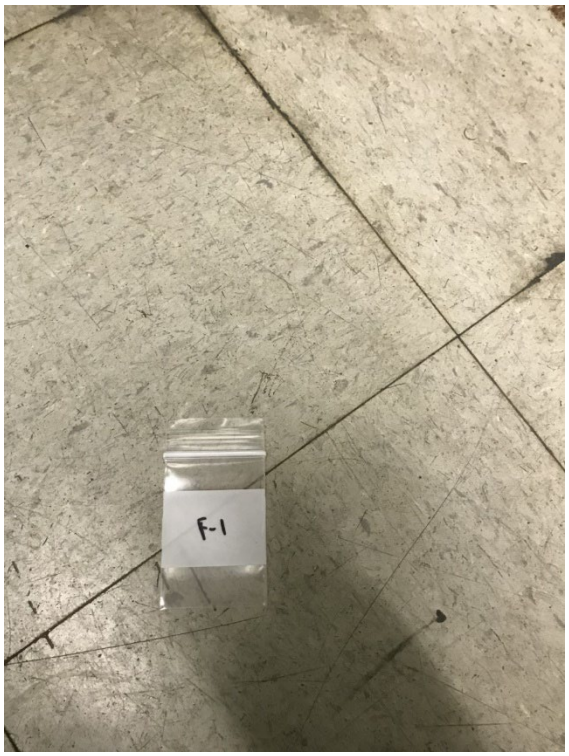
Picture 1: Work area of the WPD laboratory. Lead-based paint was not detected via XRF



Picture 2: Ceiling gypsum board sampled was found to not contain asbestos



Picture 3: Ceiling joint compound was determined to be ACM by CAC



Picture 4: Black/Tan mastic layer associated with 12x12 beige floor tile sampled was found to contain asbestos

APPENDIX E

ACCREDITATIONS AND CERTIFICATION

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

Andrea G Pulsipher
Name

Certification No. ~~17-5929~~

Expires on ~~07/18/23~~

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.

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
	Lead Inspector/Assessor	LRC-00003897	11/3/2023

Andrea Pulsipher

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 Site Surveillance Technician

Tyler A Gimarse
Name

Certification No. **21-6706**

Expires on **12/17/23**

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.

California Department of PublicHealth

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:	CERTIFICATE TYPE:	NUMBER:	EXPIRATION DATE:
 **Tyler Gimarse**	Lead Sampling Technician	LRC-00004184	11/18/2023

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